BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFOS): PROPOSED AMENDMENTS TO 35 ILL. ADM. CODE 501, 502 AND 504	))))	R 2012-023

NOTICE OF ELECTRONIC FILING

To: **Attached Service List**

PLEASE TAKE NOTICE that on January 30, 2013, I electronically filed with the Clerk of the Pollution Control Board of the State of Illinois: **ENVIRONMENTAL GROUPS' RESPONSE TO COMMENTS FILED JANUARY 16, 2013** on behalf of Prairie Rivers Network, Illinois Citizens for Clean Air and Water, Natural Resources Defense Council and Environmental Law & Policy Center (collectively, "Environmental Groups") copies of which are attached hereto and herewith served upon you.

Respectfully Submitted,

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ENVIRONMENTAL GROUPS' RESPONSE TO COMMENTS FILED JANUARY 16, 2013

Prairie Rivers Network, Illinois Citizens for Clean Air and Water, and Environmental Law & Policy Center (collectively, "Environmental Groups") appreciate this opportunity to provide the Illinois Pollution Control Board ("IPCB" or "Board") with these final thoughts In the Matter of: Concentrated Animal Feeding Operations (CAFOs): Proposed Amendments to 35 Ill. Adm. Code Parts 501, 502, and 504 in response to comments filed by the Illinois Environmental Protection Agency ("IEPA" or "Agency") and the Agricultural Coalition on January 16, 2013 ("IEPA Comment" and "Ag Coalition Comment," respectively).[1] We believe that many of the arguments presented in the IEPA Comment and the Ag Coalition Comment were adequately addressed by Environmental Groups' Comment, also filed on January 16, 2013. Below we respond to a handful of issues from the IEPA Comment and Ag Coalition Comment that require a response, explanation or clarification.

I. The Board's Authority

As Environmental Groups explained in the Comment filed in this proceeding on January 16, 2013,[2] the Board has the authority to promulgate whatever rules meet the Illinois Environmental Protection Act goal of restoring, maintaining and enhancing the purity of the waters of the state and assuring no contaminants are discharged to waters of the state.[3] Accordingly, the Board should not find its broad authority limited by arguments put forth by the Agricultural Coalition and IEPA. In this section of Environmental Groups' Response, we explore 1) whether the scope of the present rulemaking is limited in some way; 2) whether Environmental Groups' proposal is an improper attempt to modify the terms of the Livestock Management Facilities Act (LMFA); and 3) whether the Board is barred from adopting the Environmental Groups' proposal by Section 12(f) of the Illinois Environmental Protection Act.

A. The Scope of this Rulemaking

The Agricultural Coalition does not cite to any authority for the argument that the scope of the rulemaking is limited to that which is required by the final federal CAFO rule. IEPA's Statement of Reasons justifies a rulemaking regarding "agricultural related water pollution" and

[1] We note that a comment was also filed by Maurer-Stutz, Inc. on January 16, 2013. Environmental Groups do not believe the amendments to the rules presented in that comment letter are supported by adequate evidence; accordingly we ask the Board to decline to adopt those changes in its First Notice rule.
[2] Environmental Groups' Final Comment, Section I.A., pp. 2-3
[3] 415 ILCS 5/11 (b).

proposes amendments to 35 Ill. Admin. Code Parts 501 and 502. Although IEPA proposed rule misses important opportunities to address water pollution from CAFOs in Illinois, there is nothing in the Illinois Environmental Protection Act,[4] the Illinois Administrative Procedure Act,[5] or the Board's procedural rules[6] that prevents the Board from adopting the Environmental Groups' proposal. To the contrary, 35 Ill. Admin. Code 102.600 (a) states,

> The Board may revise the proposed regulations before adoption upon its own motion or in response to suggestions made at hearing and in written comments made prior to second notice. No additional hearing on the revisions need be held.

Environmental Groups' proposal is exactly the kind of "suggestion" that can properly prompt the Board to amend IEPA's proposal in this rulemaking.

B. The Livestock Management Facilities Act (LMFA)

The Agricultural Coalition has also argued that any regulations that go beyond the minimum federal requirements would amount to an unlawful amendment of the "carefully crafted legislative provisions of the LMFA." A careful reading of the LMFA shows that, to the contrary, the legislature mandated that livestock management and livestock handling facilities comply with both the LMFA *and* Illinois Environmental Protection Act regulations, particularly with regard to managing livestock waste:

> The livestock management facility owner or operator shall comply with the requirements for handling, storing, and disposing of livestock wastes as set forth in the rules adopted pursuant to the Illinois Environmental Protection Act concerning agriculture related pollution.[7]

Moreover, in crafting the LMFA, the legislature very carefully established that the LMFA would enjoy no preemptory authority over the Environmental Protection Act or its implementing regulations.

> Nothing in this Act shall be construed as a limitation or preemption *of any statutory or regulatory authority* under the Illinois Environmental Protection Act.[8]

Contrary to the Agricultural Coalition's claims, neither the IEPA proposed rules nor the Environmental Groups' Proposal improperly amend the LMFA.

C. Section 12(f)

Section 12(f) of the Illinois Environmental Protection Act states, "No person shall cause, threaten or allow the discharge of any contaminant into waters of the State" without an NPDES permit or in violation of the Board's regulations. The section goes on to state that "No permit shall be required under this subsection and under Section 39(b) of this Act for any discharge for which a permit is not required under the Federal Water Pollution Control Act, as now or

[4] 415 ILCS 5/27.
[5] 5 ILCS 100/5-40.
[6] 35 Ill. Admin. Code Part 102.
[7] 510 ILCS 77/20 (a).
[8] 510 ILCS 77/100. (emphasis added).

hereafter amended, and regulations pursuant thereto." However, courts have found that the limiting provision in Section 12(f) does not prohibit the Board from adopting any rule that is not strictly required by federal law.[9] The Board retains authority to adopt NPDES rules that carry out the purposes of the program, as well as the broad authority to set environmental standards for the state of Illinois that do not require a permit.

Environmental Groups are proposing a uniform set of land application standards across the class of large CAFOs, whether they are required to get a permit or not. While Environmental Groups do not believe that 12(f) prohibits the Board from establishing a state permit system for CAFOs like other states have done,[10] the Board need not decide the question because the Environmental Groups' proposal does not seek permits for facilities that do not discharge. We only ask that the Board establish the same standards of practice for Large CAFOs across the industry.

With regard to applicable waters under the rule, IEPA and the Agricultural Coalition specifically argue that Section 12(f) may limit the Board's ability to apply the 502 rules to "Waters of the State"[11] (as Environmental Groups have proposed) because the Clean Water Act applies to "waters of the U.S." This argument is analogous to one presented in *Peabody v. IPCB*, where the court rejected the petitioner's argument that the Board's rules were invalid because "contaminant" was defined more broadly under Illinois law than "pollutant" is under federal law.[12] Similarly, the fact that "waters of the state" as defined in the Illinois Environmental Protection Act is broader than "waters of the U.S." does not prevent the Board from adopting NPDES (and non-NPDES) rules that apply to "waters of the state."

Furthermore, several existing NPDES regulations explicitly apply to "waters of the State":

The Board regulations requiring NPDES permits prohibit the "the discharge of any contaminant or pollutant by any person into the waters of the State from a point source."[13]

The rules regarding mixing zones use "waters of the state" as the relevant volume for the calculations.[14]

The purpose of Illinois' antidegradation rules is "to protect existing uses of waters of the State" and prevent unnecessary deterioration of waters of the State."[15]

Community water treatment facilities that discharge to "waters of the state" are required to obtain NPDES permits.[16]

NPDES permits are required for mine discharges to waters of the state.[17]

[9] *U.S. Steel, Corp. v. IPCB*, 52 Ill. App. 3d 1, 4-5 (2d Dist. 1977) ("Such a limited interpretation of the Illinois [Environmental Protection] Act would unduly hinder the Board from achieving the true goal of the NPDES permit system") and Peabody Coal, Co. v. IPCB, 36 Ill. App. 3d 5, 13-14 (5th Dist., 1976) ("[W]e do not believe that the Illinois act limits the Board's rule-making power to that necessary to obtain a Federal permit.").
[10] Environmental Groups' Comment, Section V., pp. 37-40 (Jan. 16, 2013)
[11] As "waters" are defined in 415 ILCS 5/3.550.
[12] *Peabody Coal, Co. v. IPCB*, 36 Ill. App. 3d at 13-14.
[13] 35 Ill. Admin. Code 309.102 (2012).
[14] 35 Ill. Admin. Code 302.102.
[15] 35 Ill Admin. Code 302.102.
[16] 35 Ill. Admin. Code 653.113.

It is simply not true that the Illinois NPDES program applies solely to "waters of the U.S."

Finally, in practice, IEPA does not know which waters are waters of the U.S., nor does it have a standard method to determine whether receiving waters are "waters of the U.S." and/or "waters of the State."[18] These determinations must be made on an ad hoc basis by various agency staff. Because "waters of the state" is broader, IEPA will only need to make a distinction in the most far-fetched of circumstances.

To find that Section 12(f) prohibits the Board from regulating pollution threats to waters of the state would improperly limit the broad authority the General Assembly intended to give to the Board and would be inconsistent with prior caselaw. Further, such an interpretation would conflict with existing regulations, and would create a greater burden on IEPA to make unnecessary distinctions among Illinois' waters. Accordingly, the Board should reject the argument and adopt uniform CAFO regulations that apply to all "waters of the State."

II. Registration Requirement

The Environmental Groups have proposed a registration program for all Large CAFOs under Section 501.505. A registration program is necessary to populate a comprehensive inventory of Illinois CAFOs. According to USEPA, an inventory is necessary in order for Illinois to retain its authority to administer the NPDES program. As noted by the Environmental Groups at the October 30, 2012 DeKalb hearing, USEPA has been investigating IEPA to determine whether the Administrator must withdraw the state's NPDES program.[19] This investigation arose because of the Agency's alleged failure to adequately regulate CAFOs. USEPA has not denied the pending dedelegation petition, so the investigation continues.

As discussed in Environmental Groups' Comment[20] USEPA found serious deficiencies in IEPA's regulatory program for CAFOs. In response to USEPA's findings, IEPA committed to propose a registration program for CAFOs in the current rulemaking. Both IEPA and the Agricultural Coalition assert that the Environmental Groups misinterpret the Agency's commitments to USEPA. However, a plain reading of IEPA's response to USEPA leaves little room for misinterpretation.

In response to the USEPA's dedelegation investigation report, IEPA states:

> Illinois EPA will propose a revision in the state livestock regulations (a draft of which will be sent to Region 5 by December 1, 2010) so that livestock producers are required to file basic information with the Illinois EPA. The proposed revisions to Subtitle E will allow Illinois EPA to populate a statewide inventory, which then can be used for prioritization of inspections and permitting decisions.[21]

[17] 35 Ill. Admin. Code 403.102.
[18] Ex. 6, Illinois EPA's Answers to the Prefiled Questions of Environmental Groups Directed to Sanjay Sofat, q. 7.
[19] Ex. 14 at 4.
[20] Environmental Groups' Final Comment, Section III.A.
[21] Thu Prefiled Testimony, Attach. 6, p. 3.

The IEPA's 2011/2012 CAFO Work Plan Agreement states:

> Objective 2: U.S. EPA approves amendments to 35 Ill. Adm. Code, subtitle E, which…require the owners or operators of all Large CAFOs to register with Illinois EPA…
>
> …Within 30 days after publication of amendments to 35 Ill. Adm. Code, subtitle E, Illinois EPA will inform the owner of each Large CAFO in the State's inventory, in writing, about the duty to apply for a permit and the potential consequences for failing to apply…[22]

IEPA disagrees with Environmental Groups' expert, Dr. Kendall Thu, that the Agency has failed to meet these obligations. The Agency stated that it has not been given any indication from USEPA that it has failed to meet any requirements in the 2011-2012 Work Plan. IEPA further states that the 2011-2012 Work Plan was folded into the FY 2012-2013 Performance Partnership Agreement (PPA) and revisions to the CAFO Program Work Plan and that language regarding rulemaking proposals that the Environmental Groups rely on were not included in the current PPA.[23]

However, based on documents submitted by IEPA in this rulemaking, it appears a registration program was contained in draft regulations submitted by IEPA to USEPA for review at the time the agencies entered into the 2012-2013 PPA. IEPA's May 2011 draft regulations submitted to USEPA included requirements for CAFOs to submit the following registration information: 1) the name and address of all owners: 2) facility address; 3) location, including county. township, range, section, and quarter section; 3) latitude and longitude; 4) types of animal holding areas; 5) types and size of animals, including the maximum number of each type; 5) name and signature of owner/operator, and 6) date of submittal of registration.[24] This was apparently the last complete draft of the proposed rules USEPA reviewed prior to this rulemaking.[25]

Furthermore, the PPA includes an agreement to submit a "proposed amended CAFO rule and supporting regulatory package to the Illinois Pollution Control Board," and a series of steps IEPA will take to develop a comprehensive inventory through September 30, 2013.[26] The 2012-2013 PPA states that IEPA "will submit the proposed amended CAFO rule and supporting regulatory package to the Illinois Pollution Control Board."[27] It also states that by "September 30, 2013, Illinois EPA will provide an updated CAFO inventory that contains the information identified in its plan to create and maintain a comprehensive inventory of CAFOs."[28] Further, within "30 days after publication of the amendments, Illinois EPA will inform the owners of

[22] Thu Prefiled Testimony, Attach. 7, p. 5-6.
[23] IEPA Comment at 14.
[24] IEPA Prefiled Answers, Attach. 7a (Aug. 14 2012).
[25] See Attachment 1, 2012-2013 PPA, executed in October 2011, available at http://www.epa.state.il.us/ppa/ppa-fy2012-2013.pdf.
[26] PPA at Attachment C at 14-16.
[27] Id at 14.
[28] Id at 15.

each Large CAFO in the state's inventory, in writing, about the need for an NPDES permit for discharges from the CAFO and the consequences for failing to obtain the permit…"[29]

Although IEPA stated that the 2011-2012 workplan was being revised into a new workplan, it is our understanding based on information from USEPA that, as of Friday, January 25th 2013, no new or revised CAFO Work Plan had been signed by IEPA and USEPA. As such, the 2011-2012 Work Plan in which IEPA committed to propose a registration program remains in effect as incorporated into the 2012-2013 PPA.

IEPA's confidence that USEPA is satisfied that IEPA met the 2011-2012 Work Plan goals is unfounded. USEPA's supposed silence on the matter should in no way be interpreted as an indication that IEPA has fulfilled those goals. The Board should note that in its investigation report, USEPA carefully noted a series of unfulfilled PPA commitments to complete a comprehensive inventory of CAFOs going as far back as 2000.[30] Despite having made this commitment repeatedly for over ten years, Bruce Yurdin testified at the Springfield hearing that the Agency has "no information to base an estimate on how many livestock operations there are in Illinois" and that the Agency has "no reasonable and accurate method to make an estimate on how many CAFOs there are in Illinois or how many should have NPDES permits."[31] Notably, Mr. Sofat added that "[o]ur objective is not to identify each and every livestock facility out there. Our objective is to have enough information because it is a starting point…so at this point we believe what we have is more than adequate for us to run this program…."[32] This position is not consistent with the Clean Water Act.

The Clean Water Act § 402(c)(3) requires the USEPA Administrator to withdraw an approved state NPDES program if she determines that a state is not administering the program in accordance with applicable requirements. Under 40 CFR 123.26(b)(1), a state **must have a program which is capable of making comprehensive surveys of all facilities and activities subject to the Director's authority to identify persons subject to regulation who have failed to comply with permit application or other program requirements**. In its investigation, USEPA found that IEPA "does not currently have a statewide comprehensive survey of CAFOs which may be subject to NPDES permit requirements." USEPA also found that IEPA "has serious deficiencies in its program for determining compliance or noncompliance with applicable program requirements" and the Agency lacked sufficient "inspection and surveillance procedures."[33] There is nothing to indicate that IEPA will be able to develop a comprehensive inventory with its existing information.

It is unclear why the Agency believes the Environmental Groups' proposed registration requirements go beyond the collection of information necessary to develop an inventory of CAFOs. We contend that such information is necessary so the Agency can identify which livestock facilities in Illinois are in fact CAFOs and which should be subject to NPDES permit requirements. Without information such as location, types and number of animals, type of waste

[29] Id. at 16.
[30] Ex. 14 at 31-33.
[31] Ex. 7 at 3-4 (Yurdin Prefiled Answers to Environmental Groups Questions).
[32] Tr. 8/30/12 p. 111-113.
[33] Ex. 14 at 16.

storage and containment, volume of waste generated, methods of disposal, details on disposal locations, nutrient management plans, and contractual agreements with parties who accept waste, there is no way to expeditiously assess which facilities should be prioritized for inspections or which fail to meet program requirements. For example, as noted by USEPA, because IEPA does not have access to Illinois Department of Agriculture plans for livestock facilities the agency "…is unable to review plans for new and expanded facilities to identify livestock operations as CAFOs that are subject to permit application requirements."[34]

The IEPA Comment claims that the Environmental Groups' registration proposal goes beyond the type of information expected to be generated from a comprehensive inventory.[35] We disagree. For example, IEPA must know how a CAFO stores its waste in order to adequately evaluate the likelihood that it will discharge. Facilities with insufficient storage are more likely to overflow and discharge from the production area, and are more likely to land-apply waste in a manner that results in a discharge that is not covered by the agricultural stormwater exemption.

Similarly, IEPA should require CAFOs to report whether or not they implement nutrient management plans. When properly implemented, nutrient management plans are an important tool to ensure that livestock waste is applied at agronomic rates. In the event of a discharge from land application, the question of whether a nutrient management plan has been implemented is key to determining whether that discharge is exempt as agricultural stormwater. By not requiring this information, IEPA will be limited in its ability to determine potential sources and risks of water pollution, as well as when certain discharges constitute violations of the Clean Water Act.

IEPA should also require Large CAFOs to report information about waste that is transferred off-site. Large CAFOs by nature do not have adequate land bases to absorb the excess nutrients they produce and dispose of through land application. Studies show that manure nutrients generated by large livestock facilities commonly exceed the assimilative capacity of crop and pastureland of the counties in which they are located.[36] USEPA states that large operations often do not have enough land to effectively use manure as fertilizer. Because Large CAFOs often produce more livestock waste than the land in their localities can utilize, off-site transferees run the risk of over-application and mismanagement. Without proper planning and oversight, this inevitably leads to water quality degradation. To prevent continued agriculture related water quality impairment, IEPA must track the off-site transfer of waste from large confinement operations. IEPA should require the reporting of the amount of waste transferred to another person, identify third-party off-site transferees and the land they have available for livestock waste application. This information will allow IEPA to ensure that third-party off-site transferees are not receiving more waste than they can appropriately deal with and will close a loophole where a CAFO can avoid accountability for its waste by transferring it to a third party.

[34] Ex. 14 at 16. (For more background on the reasons why it is necessary to collect information on many of the categories listed in the Environmental Groups' Section 501.505 registration requirements, please refer to Attachment 2 to this filing (ICCAW Federal CAFO Reporting Rule Comments, Jan. 19, 2012, at 3-4)).
[35] IEPA Comment at p 13.
[36] IEPA SOR Attachment B (USEPA CAFO Final Rule Preamble, 40 CFR 7176 –7181 at 7180 (Feb. 12, 2003), citing USDA, Confined Animal Production and Manure Nutrients, Agriculture Information Bulletin 771; and USDA, Confined Animal Production Poses Manure Management Problems, Agricultural Outlook, September 2001).

IEPA should also collect integrator information. Large corporate producers or processors that own livestock often enter into contracts with smaller producers or facility owners to raise the integrator's animals to market weight. Often, production contracts are crafted such that corporate integrators exercise primary operational control over the production practices used at their CAFOs. By not requiring integrator information, IEPA will be limited in its ability to ensure proper waste management practices and enforce the Clean Water Act against those responsible for the pollution.

The administrative burden on the Agency to collect this information from other sources or from individual CAFOs would be far greater than it would be for CAFOs to provide. Responsible CAFO owners and operators should have complete information on all of the items listed in Environmental Group's proposal at their fingertips, which would allow them to fill out the requisite survey form in a matter of minutes. In comparison, it could take hours of investigation by multiple IEPA staff members to gather the same types of data from multiple sources for individual livestock facilities, with no guarantee of obtaining a complete inventory. Given that IEPA would have to do this for thousands of CAFOs to construct a comprehensive inventory that will allow the Agency to effectively identify polluters, the burden on the Agency far exceeds the burden on individual CAFO owners or operators to provide the same information.

Although IEPA made commitments to USEPA to propose a registration program in the current rulemaking, the Agency now contends that there are significant questions as to whether the Board has sufficient authority to adopt such a program calling it "controversial and possibly illegal." Given the fact that USEPA found Illinois was failing to meet its delegated responsibilities under the Clean Water Act in large part because of the lack of an adequate CAFO inventory, it is more likely the state's repeated failure to adequately account for all CAFOs and assess their regulatory compliance contradicts federal law.

The Environmental Groups assert that a registration program is necessary to maintain Illinois delegation of the Clean Water Act, and that the Board has clear authority to enact regulations to establish such a program. As discussed previously, the Board has broad authority to adopt regulations that prevent pollution of Illinois waters[37] and Board regulations must be consistent with federal Clean Water Act regulations.[38] While, contrary to its assertions, IEPA probably already has the authority to create a registration program for CAFOs,[39] the Board should make the Agency's duty to create such a program clear in this rulemaking.

Finally, the Agricultural Coalition's claim that increased enforcement activity should not be the basis for increased regulation is a mischaracterization of the evidence presented to the Board in support of the registration requirement. The Environmental Groups presented enforcement cases as one of multiple lines of evidence showing the widespread problem of water pollution from Illinois CAFOs.[40] But even the information we presented does not show the complete picture.

[37] 415 ILCS 5/11 (b).
[38] 415 ILCS 5/13 (b) (1).
[39] See, e.g., 35 Ill. Admin. Code 502.201 (b) and 305.102 (a).
[40] Environmental Groups presented evidence of enforcement cases at the Board's hearings and in our Final Comment not for the Board to weigh the guilt of any individual discharger, but to illustrate the kinds of pollution events that arise from CAFOs sited and constructed under the LMFA.

The USEPA's investigation report clearly and definitively shows a lack of adequate CAFO enforcement in Illinois, which is in large part due to the IEPA's failure to develop and maintain a comprehensive inventory of CAFOs.[41]

III. Flexibility to Innovate

According to the IEPA Comment, the Agency's proposed rules do not subject unpermitted large CAFOs to the land application technical standards in Section 502.610 or 502.615-645 and do not require unpermitted Large CAFOs to develop a nutrient management plan, because the Agency argues that unpermitted Large CAFOs need "flexibility" in land-applying waste. As IEPA staff member Sanjay Sofat stated,

> I think the Agency's proposal wanted to keep the flexibility that the federal rule has. We did not want to take away the technology or other developments that could happen in the future and therefore bind them to the requirements that we do have for the permitted rule. So it was more flexibility; give them room.
>
> Again, 510(b) needs to be complied with. How you comply, all that is being left on unpermitted large CAFOs to decide. They know their site. They could be involved in groups, with the universities, that they're looking into technologies, and we do not want to, just like the federal rule talks about, we did not want to limit that flexibility so that they can effectively and efficiently comply with the ag storm water exemption requirement.[42]

The Agency's concern seems to be that Large CAFOs be afforded every opportunity to utilize technological advances. The Environmental Groups agree that innovation is important and worthy of support. We do not agree, however, that our proposal in any way limits innovation regarding the land application of livestock waste.

To understand why Environmental Groups' proposal does not limit innovation, the Board should consider what sort of technological advances the Agency means. With regard to the land application of livestock waste, the relevant technologies involve methods for land applying waste and for determining appropriate application rates and conservation practices.

We can imagine developments in application equipment that promote efficiency and accuracy and that reduce equipment failure. Nothing in the land application standards of Subpart F limits a CAFO owner or operator from taking advantage of technological advances such as these. Nor do the technical standards of Subpart F limit flexibility regarding the use of innovative conservation practices.[43]

The technical standards similarly allow for an appropriate degree of flexibility and innovation in determination of agronomic rates of application. For instance, the land application technical standards do not dictate numeric application rates, but instead require "nitrogen-based" and "phosphorus-based" rates allowing for flexibility in application rates based on crop genetics, yields, and nutrient requirements. Section 502.625 (b) regarding livestock waste volume

[41]Ex. 14.
[42]Tr. 8/21/12, p. 155.
[43] See Section 502.615 of Attach. 2 to Environmental Groups' Final Comment (Jan. 16, 2012).

estimates suggests use of the Livestock Waste Facilities Handbook, but there is no requirement that a particular data source be utilized. Section 502.625 (c), which governs measurement of the nutrient value of livestock waste at new facilities references the Livestock Waste Facilities Handbook as a source of values, but allows for use of other sources if approved by the Agency. Section 502.625 (e) governs the determination of realistic crop yield goals and allows great flexibility in determining appropriate sources of crop yield data.

Other prescriptions in the land application technical standards include methods for determining available soil phosphorus, soil loss, nitrogen availability, nitrogen credits, phosphorus needed for each crop and finally nitrogen and phosphorus fertilization rates. All of these factors are used in determining agronomic rates of application, and the great majority of the prescriptions regarding these factors simply require the use of data provided in widely used research handbooks, namely the Illinois Agronomy Handbook and the Livestock Waste Facility Handbook.[44] Sections 502.615(c) (3) and 502.620(f) require that soil loss be determined using the Revised Universal Soil Loss Equation, which was devised by the United States Department of Agriculture, Agricultural Research Service.

Requiring the use of widely recognized and utilized data sources and a soil loss equation derived by USDA are hardly the type of requirements that limit innovation. Applying the land application technical standards to all Large CAFOs and requiring Large CAFOS to prepare and submit nutrient management plans is both sound and reasonable. It is undisputed that all Large CAFOs commonly use the same land application practices, equipment and technology and that all CAFOs generate waste with the same characteristics.[45] There is no reason that Large CAFOs should be treated differently under the regulations, and no reason to believe that the regulations will hinder innovations.

IV. Third Party Livestock Waste Transfers

The IEPA misinterprets the intent of the Environmental Groups' proposed provisions for third-party offsite waste transfers.[46] While IEPA argues that their requirements are more stringent, we do not believe this is the case. We agree with the Agency that CAFOs should account for all of the waste they produce in their NMPs and that agreements to land apply on lands not owned, rented or otherwise controlled by the CAFO should be required as part of a facility's NMP.[47] In addition to this requirement, the Environmental Groups' waste transfer requirements are intended to account for and track waste generated at a CAFO when it releases control over it such that it gets transferred to third parties and land applied on land not owned, rented or otherwise controlled by the CAFO.

Under IEPA's proposal, this waste would not be accounted for in a CAFOs NMP and its destination would be unknown. While IEPA recognizes that third-party transfers are not uncommon, they do not place controls on such transfers. In recognizing that such transfers

[44] Section 502.625 (d), (g) (3) and (h) of Attach. 2 to Environmental Groups' Final Comment (Jan. 16, 2012).
[45] Technical Support Document, pp. 208-209.
[46] At the hearings, there may have been some confusion of what Environmental Groups meant by the term "third party waste transfers" as opposed to "offsite waste transfers." Third party transfers are where a person accepts waste from a CAFO in order to land apply it on land not otherwise owned or controlled by the CAFO.
[47] IEPA Comment at 15.

occur, it is unclear why the Agency does not believe they should be included in facility waste management planning.[48] IEPA expresses concerns over the enforceability of third-party offsite transfers and whether the Environmental Groups intended them to be subject to Subpart F of the proposed regulations. The Environmental Groups do not intend for the provisions of Subpart F to be enforced against third-party offsite-transferees. However, we believe IEPA does have the ability to pursue enforcement against third-party off-site transferees if they do not responsibly manage their waste.

For example, it is IEPA's responsibility to assure that "no person shall cause or threaten or allow the discharge of any contaminants into the environment...so as to cause water pollution in Illinois..."[49] T IEPA is to identify sources of water pollution and implement steps to abate the pollution. This pollution can come from non-point sources and agricultural runoff. By imposing requirements on CAFOs to adequately track and document off-site third-party transfers, IEPA will have far greater ability to account for the massive amounts of waste generated at CAFOs and identify sources of water pollution as well as take steps to abate it.

V. Agency permission for winter application [35 IAC 502.630(a)(1)]

The Environmental Groups have considered the concerns posed in the IEPA Comment,[50] but still believe that permission should be obtained prior to surface application of livestock waste on frozen, ice-covered, or snow-covered ground. In Environmental Groups' proposal, we task the Agency with giving permission only if the six criteria from the Agency's proposed regulations are met by the CAFO.[51] We believe the Agency can reasonably verify whether these criteria have been met via a phone conversation with the CAFO owner or operator. For example, the criterion in (A) requires an evaluation of practical alternatives to land application. The Agency could run through a list of alternatives with the owner/operator to determine whether this criterion has been met.

The Agency asserts that a site visit may sometimes be necessary, but that such a visit may not be possible in the window of time before a production area discharge might occur. While in some instances a site visit may be necessary, we do not believe we are creating a "no-win" situation. All operators should be checking their waste storage structures regularly as a best management practice, and the Agency's proposal requires permitted CAFOs to conduct weekly inspections.[52] In the event of heavy precipitation or snowmelt, the CAFO should conduct more frequent inspections. The Agency proposal also requires permitted CAFOs to maintain their waste storage structures so they can contain the runoff and precipitation from a 25-year, 24-hour storm.[53] And the existing waste storage structure volume requirements in 35 IAC 506.303(a) require livestock liquid waste facilities (not just permitted CAFOs) built under the LMFA to take into account the 25-year, 24-hour storm as well as maintain 2 feet of freeboard. In Illinois, the

[48] IEPA Comment at 15-16.
[49] 415 ILCS 5/12(a).
[50] IEPA Comment, pp. 19-21.
[51] 35 IAC 502.630(a)(1)(A-F) of Attach. 2 to Environmental Groups' Final Comment (Jan. 16, 2012).
[52] 35 IAC 502.610(c)(3) of Attach 2 to Environmental Groups' Final Comment (Jan. 16, 2012).
[53] 35 IAC 502.605(a)(1) of Attach 2 to Environmental Groups' Final Comment (Jan. 16, 2012).

25-year, 24-hour storm equates to approximately 5-6 inches of rain.[54] Therefore, operators should know well in advance of a discharge whether winter application is going to be necessary. If a true emergency arises and there is no time for a site inspection, the Agency will at least be aware of the potential that a discharge may occur from that facility and can work with the operator to make sure adequate monitoring occurs.

We do not want to create a system where operators are rewarded for poor planning, and we believe our proposal does a better job of encouraging good, timely management. There is no reason to believe that getting permission from the Agency prior to surface application on frozen, snow-covered, or ice-covered ground would create a "shield" that would limit IEPA's ability to bring an enforcement action. Only a proper NPDES permit can authorize a discharge of contaminants into waters of the state. There is no provision in existing or proposed regulations that would create such a shield, but if the Board is concerned that a shield may be implied, language could be added to 502.630 (a)(1) to clarify that no such shield is created by getting permission from the Agency.

VI. Winter application setbacks [35 IAC 502.630(c)]

We agree with the Agency that the Board should reject Dr. Funk's suggestion that subsections 502.630(c)(4) and (5) be eliminated from the rule. We are confident that the Agency's proposed winter land application setbacks will adequately protect surface waters from land application area runoff.

VII. Macropores [35 IAC 502.620(m)]

The IEPA and the Agricultural Coalition's Comments expressed opposition to the Environmental Groups proposed amendment to prohibit the application of liquid livestock waste on fields with subsurface drainage when macropores are present. The Environmental Groups' Comment revised our proposal by eliminating the definition of macropore and proposing a reduced application rate instead of a ban, as follows:

> Liquid livestock waste containing less than 5% solids shall be applied at no greater than 13,000 gallons per acre per application on fields with subsurface drainage. Under drought conditions rated "moderate" or greater by the U.S. Drought Monitor, the application rate shall not exceed 6,800 gallons per acre per application. Tile outlets shall be monitored during and after application. If there is evidence that tiles are discharging waste, application shall stop immediately and tile plugs or other equipment shall be used to stop the discharge.[55]

Our reasons for making this language change are provided in Section II.C.4 of Environmental Groups' Comment. As the Agency pointed out, Mr. Keefer suggested that restricting application rates and applying other practices (e.g., monitoring tile outlets) would be sufficiently

[54] Huff and Angel, "Rainfall Frequency Atlas of the Midwest" p. 87 (1992) (commonly referred to as "Bulletin 71"), available at http://www.isws.illinois.edu/pubdoc/b/iswsb-71.pdf.
[55] Environmental Groups' Final Comment, Attach. 2.

protective.[56] We believe our proposed change provides clear and protective guidelines while taking away any guesswork associated with determining the presence of macropores (which are ubiquitous). We are not suggesting tillage as a control measure because of the inconsistent results cited by the Agency[57] and the fact that tillage can increase erosion and decrease soil health.

The Agency and Agricultural Coalition may still have concerns that our proposal is too restrictive and burdensome, but they offer no scientific evidence that their proposals are adequate to prevent livestock waste loss from fields via macropores and tiles. The testimony of Mr. Keefer and Mr. Panno (who, we note, were not testifying on behalf of Environmental Groups) cast doubt on the adequacy of the Agency's proposal while emphasizing the importance of macropores as pollution conduits. The water pollution risk from macropores should not continue to be overlooked in the regulations, so we ask the Board to adopt Environmental Groups proposal in 502.620 (m).

VIII. Siting setbacks [35 IAC 501.402]

We disagree with the Agency and Agricultural Coalition that adding a CAFO siting setback from surface waters and wells is outside the scope of this rulemaking. Part 501 includes Section 501.402, which is entitled "Location of New Livestock Management Facilities and New Livestock Waste-Handling Facilities." This section already contains several restrictions on the siting of new facilities relative to particular features. Therefore, it is to this section that we propose a siting setback from surface waters be added, as well as an increased setback from wells. As the Agricultural Coalition pointed out,[58] Section 501.402 has been in effect since 1978 and has only been amended once, in 1991. Given that livestock facilities are much larger than they used to be and are handling more waste, it is very appropriate for the Board to consider new siting criteria in light of the evidence provided during the hearings.

The IEPA Comment and the Ag Coalition Comment pointed out that the LMFA and its regulations include siting criteria. The Agency also mentioned that the LMFA siting criteria do not include siting setbacks from surface waters or wells.[59] The present rulemaking includes a section of the regulations promulgated under the Illinois Environmental Protection Act that also addresses the siting of livestock facilities. When the Illinois Department of Agriculture evaluates applications for the construction of new or expanding livestock facilities, they must consider not only the LMFA and its regulations, but also the Illinois Environmental Protection Act and its regulations.[60] Although the siting setback section of the LMFA states that the Illinois Environmental Protection Act setbacks apply where the LMFA setbacks do not, there is nothing in that section that indicates that LMFA setbacks override more protective setbacks adopted under the Illinois Environmental Protection Act or any other statute.[61] Indeed, the LMFA states, "Nothing in this Act shall be construed as a limitation or preemption of any statutory or

[56] IEPA Comment, p. 22.
[57] IEPA Comment, p. 21.
[58] Ag. Coalition Comment, p. 5.
[59] IEPA Comment, p. 24.
[60] See, e.g., 510 ILCS 77/20 (a).
[61] 510 ILCS 77/35.

regulatory authority under the Illinois Environmental Protection Act."[62] Therefore, we think this rulemaking is a very important opportunity for the Board to adopt new siting criteria that reflect modern conditions and reported problems of livestock waste contaminating aquatic resources.

In Environmental Groups' revised proposal submitted with our Comment, we corrected an earlier oversight by specifying that our proposed setback restrictions in Section 501.402 should only apply to facilities that commence construction after the effective date of the section. Our proposal for well setbacks represents an increase from the **minimum** setback standards found in the Potable Water Supplies Title of the Illinois Environmental Protection Act.[63] We disagree with the Agency that our proposal is inconsistent with the maximum setback zones in the Potable Water Supplies Title.

IX. Terminology [35 IAC 501.402(h), 501.404(b)(3), 502.645(f)]

The IEPA Comment stated that the terms "designated surface water drinking supplies,"[64] "biologically significant streams,"[65] and "karst features"[66] need to be clarified in the Environmental Groups' proposed amendments. We clarify those terms below.

"Designated surface water drinking supplies" are those surface waters designated by the Agency as "public and food processing water supply" as defined in 35 Ill. Adm. Code 301.360.

"Biologically significant streams" are high quality streams classified by the Illinois Department of Natural Resources.[67] These streams have better biodiversity and ecosystem health relative to other streams in the state, and therefore their preservation is essential. Many of these streams harbor rare and sensitive species that could be negatively impacted by pollution from livestock facilities. In 2008, Illinois Department of Natural Resources classified 110 stream segments as biologically significant and plotted their locations on a map.[68] The map shows that the streams are few enough in number that very few livestock operations will be affected by any land application restrictions associated with biologically significant streams. Nonetheless, the protections we propose are important to protect Biologically Significant Streams in those few instances.

"Karst features" may include caves, exposed bedrock, bedrock fractures, sinkholes, springs, and seeps. "Karst features" include caves, exposed karstified carbonate bedrock, sinkholes, and springs. These features are listed as land surface attributes in the LMFA's definition of "karst area."[69]

[62] 510 ILCS 77/100.
[63] 415 ILCS 5/14.
[64] 35 IAC 501.402(h), 502.645(f) of Attach 2 to Environmental Groups' Final Comment (Jan. 16, 2012).
[65] 35 IAC 502.645(f) of Attach 2 to Environmental Groups' Final Comment (Jan. 16, 2012).
[66] 35 IAC 501.404(b)(3) of Attach 2 to Environmental Groups' Final Comment (Jan. 16, 2012).
[67] Attachment 3, Illinois Department of Natural Resources, "Integrating Multiple Taxa in a Biological Stream Rating System," available at http://dnr.state.il.us/orc/biostrmratings/images/biologicalstreamratingreportsept2008.pdf.
[68] Attach. 3, p. 25.
[69] 510 ILCS 77/10.24. ("karstified carbonate bedrock" is defined at 510 ILCS 77/10.26.)

X. Economic Impact

The Agricultural Coalition is correct in noting that the public comment of John Ikerd does not dispute the comment of Peter Goldsmith regarding the importance of the livestock industry to the Illinois economy. The Environmental Groups have no dispute with Dr. Goldsmith's comment, but do note that nothing therein addresses the most important economic question in this proceeding, and that is the impact of IEPA's proposed rules and the impact of the Environmental Groups' Proposal on the Illinois economy and on the financial health of the livestock industry.

The Agricultural Coalition is simply wrong in its assertion that the US EPA economic analysis discussed by Ikerd is inapplicable to this proceeding. As noted in Mr. Ikerd's comment and our Comment, the "Economic Analysis of the Final Revisions to the National Pollutant Discharge Elimination System Regulation and the Effluent Guidelines for Concentrated Animal Feeding Operations" (USEPA Report) assessed the economic impacts of the 2003 federal CAFO rule, a rule that included a universal duty to apply for NPDES permit coverage. In addition, the US EPA economic assessment assumed that all CAFOS follow the same waste management standards. Clearly the CAFO rule assessed by US EPA was more stringent than both the IEPA proposal and the Environmental Proposal. Yet despite the more stringent requirements, the Agency found that the 2003 CAFO Rule could be implemented by 83% of all CAFOs without any significant financial effects.[70] Similarly, Mr. Ikerd concluded that "there is nothing to indicate that the IEPA CAFO Rules or the Environmental Proposal would have a significant financial impact on Illinois CAFO operators or on the livestock industry of Illinois." The USEPA Report and the public comment of John Ikerd establish that the Environmental Proposal is economically feasible for Large CAFOs in Illinois.

Dated: January 30, 2013

Respectfully Submitted,

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[70] PC #16, Attach. 3 (US EPA Report), Table 3.7.

Attachment 1:

2012-2013 PPA - October 2011
(http://www.epa.state.il.us/ppa/ppa-fy2012-2013.pdf)

FY2012/2013 PERFORMANCE
PARTNERSHIP AGREEMENT
BETWEEN
ILLINOIS EPA AND REGION 5, USEPA

We are pleased to execute our fourteenth Performance Partnership Agreement. This agreement sets forth our mutual agenda for continued environmental progress and our expectations for the state/federal relationship. We have assembled a comprehensive document of goals, outcomes, strategies and measures for the programs funded through the Performance Partnership Grant.

The execution of this agreement demonstrates our continuing commitment to environmental improvement that is both cost-effective and responsive to public concerns; and to finding better ways to accomplish our regulatory objectives.

Entered into on this 17th day of October 2011

Lisa Bonnett
Interim Director

Susan Hedman
Regional Administrator

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I. GENERAL PURPOSE AND CONTEXT

The Federal Fiscal Year 2012/2013 (FY12/13) Performance Partnership Agreement (Agreement) sets forth the mutual understandings reached regarding our state/federal relationship, and identifies the desirable environmental outcomes and performance expectations for the programs funded through the Performance Partnership Grant for the period of October 1, 2011 through September 30, 2013. The parties to this agreement are the Illinois Environmental Protection Agency (Illinois EPA) and Region 5 of the United States Environmental Protection Agency (Region 5). Illinois EPA and Region 5 entered into a separate Illinois Work Plan Agreement, dated February 24, 2011. This agreement contains references to that Work Plan, but does not supersede it.

A. State/Federal Environmental Partnership

This agreement is designed to be consistent with the "environmental partnership" as described in the National Environmental Performance Partnership System (NEPPS). The parties concur with the principles that are enumerated in the NEPPS and are proceeding in accordance with the framework shown therein.

B. Relationship of Agreement to Grants

Illinois EPA will operate under a Performance Partnership Grant (PPG) in FY2012/2013. The FY12/13 PPA implements a new format to integrate USEPA Strategic Plan Goals and Objectives into the PPA document and to provide a more user friendly template. The templates attached to this agreement serve as specific work plans for the grants included in the Illinois PPG. The templates contain the three Essential Elements required by Grants Policy Issuance 11-03, and will also be used to report accomplishments on an annual basis. The measures and commitments in the work plans will be reviewed and updated as needed on an annual basis.

Illinois EPA operates under a PPG to gain more flexibility in use of federal funds, to reduce the administrative burden of having numerous, specific categorical grants/work plans, and to continue some key resource investments in priority activities. To best achieve the administrative benefits of a PPG, fewer grant actions and awards are desirable. However, where an issue is identified in a single media program, Region 5 will move to award the remaining resources while seeking to resolve the issue. Both agencies commit to timely identification and appropriate level of engagement on all such issues.

The parties also recognize that some specific project grants will continue in effect and operate in concert with this Agreement. The FY12/13 federal Performance Partnership Grant to Illinois EPA includes the following programs for which this agreement serves as the program commitment:

1. Air pollution control program (CAA, Sec. 105)
2. TSCA compliance assurance
3. Hazardous waste management program
4. Underground injection control program
5. Water pollution control program (CWA, Sec. 106)
6. Public water system supervision program
7. Nonpoint source pollution control program (CWA, Sec. 319) (TMDL)

Non-PPG grant activity covered in the agreement includes components from the following sources:

1. Title V permitting and compliance activities under the Clean Air Act amendments.
2. Midwest Clean Diesel Initiative

In past agreements a separate section entitled Joint Environmental Priorities has been included to highlight and focus attention and resources to mutually concerned areas of interest. Joint Environmental Priorities did not receive additional funding. Joint Environmental Priorities continue to be areas of highlighted concern. Therefore Joint Environmental Priorities have been incorporated into the individual bureau workplans.

Congress requires USEPA to negotiate a fair share objective with each state for procurement dollars covering supplies, construction, equipment and services. The current negotiated rates require, to the fullest extent possible, that at least 18 percent of federal funding for prime and subcontracts awarded in support of USEPA programs be made available to businesses or other organizations owned or controlled by socially and economically disadvantaged individuals, including women and historically black colleges and universities, based on an assessment of the availability of qualified minority business enterprises (MBE) and women-owned businesses (WBE) in the relevant market. Accordingly, for any grant or cooperative agreement awarded in support of this agreement, the parties agree to ensure that a fair share objective will be made available to MBEs and WBEs.

C. Joint Planning and Evaluation Process

The parties believe it is important to clearly articulate how all the components of the performance partnership are interrelated and sequenced. We will carry out the following joint planning and evaluation process, a two-year agreement covering FY12/13.

Actions	FY2012	FY2013
Finalize FY12/13 Agreement	September 2011	
Senior Management Mid-Course Meeting	July 2012	
Mid-Course Updates	September 2012	
Illinois EPA Annual Performance Partnership Grant Report	December 2012	December 2013
Region 5 Evaluation of Annual Performance Partnership Grant Report	February 2013	February 2014

Throughout this agreement and in the attached documents, the timeframe is throughout FY2012/2013, unless specific timing/milestones are otherwise noted.

The Annual Performance Report for the PPG is a key component of the performance review. In addition, each media office has a documented post award management process, which they will continue to follow. These processes provide for periodic program meetings, conference calls, and program and file reviews, as appropriate. Finally, the two agencies have also developed a Reporting Requirement Inventory, which documents the various reporting requirements associated with grants and programs due to statutes, regulations and/or other policies and agreements. Illinois EPA will continue to fulfill these reporting requirements as outlined in the Inventory, unless a specific item is raised and/or renegotiated. All relevant information is taken into account as part of the joint evaluation process.

Another element in this joint evaluation process is the Senior Management Planning meeting, and the corresponding mid-year check-in meeting. It is expected that national program guidance should be available well before these meetings, allowing for identification of any critical commitment concerns. In addition, one agenda item for these meetings will be a senior level discussion of performance highlights and areas of concern. These discussions will be documented via joint meeting notes.

II. Enforcement and Compliance Assurance

Compliance and enforcement activities to be accomplished during the term of the FY12/13 Agreement are included in the individual media program plans. However, a summary of Region 5 and Illinois EPA roles in compliance and enforcement is helpful.

The following points serve as a foundation for the Region 5 and Illinois EPA relationships in respect to compliance and enforcement activities:

- Apply the most effective use of tools to encourage and maintain the compliance of sources of all sizes. This would include compliance assistance, administrative and/or civil enforcement, and criminal enforcement.
- Use joint up-front planning to coordinate priorities, maximize agency resources, avoid duplication of efforts, eliminate surprises, and institutionalize communication.
- Manage for environmental results which support each Agency's environmental goals and objectives,

- Ensure that compliance and enforcement information is complete, accurate, and timely consistent with Region 5 and Illinois EPA policies.

Under this Agreement, Region 5 and Illinois EPA retain their authorities and responsibilities to conduct compliance assistance, compliance monitoring, and enforcement. These activities will be conducted in the spirit of cooperation and trust. Specific compliance and enforcement data needs will be discussed and shared per each Agency's applicable policies and regulations.

Region 5 has recently conducted a review of Illinois EPA's Clean Air Act (CAA), and Clean Water Act (CWA), and Resource Conservation and Recovery Act (RCRA) compliance and enforcement programs. Both Region 5 and Illinois EPA are responsible for ensuring that agreed-upon follow-up actions that result from the review are carried out in a timely and effective manner. At the completion of the review, Region 5 provided a list of the actions to Illinois EPA as a basis of regular communication between the two parties to ensure follow-up. Certain actions may also be addressed, as appropriate, to the program workplans within this PPA.

III. Quality Management Plan

All data reported under this agreement will be quality assured and the Illinois EPA will continue to operate in accordance with its approved Quality Management Plan (QMP). The QMP will be updated as needed, and changes will be submitted to Region 5 for approval. In addition, Quality Assurance Project Plans (QAPPs) will be developed as needed in each Bureau for project specific initiatives.

IV. Dispute Resolution Process

Illinois EPA and Region 5 will use an agreed upon dispute resolution process to handle the conflicts that may arise as we implement our environmental programs and will treat the resolution process as an opportunity to improve our joint efforts and not as an indication of failure.

A. Informal Dispute Resolution Guiding Principles

Illinois EPA and Region 5 will ensure that program operations:

- Recognize conflict as a normal part of the State/Federal relationship.
- Approach disagreement as a mutual problem requiring efforts from both agencies to resolve disputes.
- Approach the discussion as an opportunity to improve the product through joint efforts.
- Aim for resolution at the staff level, while keeping management briefed. Seriously consider all issues raised but address them in a prioritized format to assure that sufficient time is allocated to the most significant issues.
- Promptly disclose underlying assumptions, frames of reference and other driving forces.
- Clearly differentiate positions and check understanding of content and process with all appropriate or affected parties to assure acceptance by all stakeholders.
- Document discussions to minimize future misunderstandings.
- Pay attention to time frames and/or deadlines and escalate quickly when necessary.

B. Formal Conflict Resolution

There are formalized programmatic conflict resolution procedures that need to be invoked if the informal route has failed to resolve all issues. 40 CFR 31.70 outlines the formal grant dispute procedures. There is also an NPDES conflict resolution procedure. Generally, disputes should be resolved as quickly as possible but within two weeks of their arising at the staff level. When there is no resolution and the two weeks have passed, there should be a comparable escalation in each organization, accompanied by a statement of the issue and a one-page issue paper. A conference call between the parties should be held as soon as possible. Disputes that need to be raised to a higher level should again be raised in comparable fashion in each organization.

V. Reporting

Information will continue to be reported to Region 5 and the National Data Systems. Programs authorized under Title 40 for which the Illinois EPA receives or wishes to receive reports or documents electronically must meet and comply with the Cross-Media Electronic Reporting Regulation (CROMERR), Part 3, Title 40 effective November 11, 2006. In accordance with the CROMERR regulation before the implementation of such reporting, the designated State program system must be approved by EPA.

Attachment A: Bureau of Air

Illinois Environmental Protection Agency 2012/2013 Performance Partnership Agreement/Performance Partnership Grant

Grant Code	Template Measures	Contacts	Performance Partnership Agreement Planned Activities or Commitments	Performance Partnership Grant Status/Progress
USEPA Strategic Goal: 1 – Taking Action on Climate Change & Improving Air Quality				
USEPA Strategic Objective 1.1: Address Climate Change. Reduce the threats posed by climate change by reducing greenhouse gas emissions and taking appropriate actions				
Work Plan Outputs/Measures/Outcomes – Air Toxics – Toxics & Global Atmosphere				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities or Commitments**	**Performance Partnership Grant Status/Progress**
	Work collaboratively to address climate change and reduce greenhouse gas emissions through activities including participation in R5-States Climate Change conference calls.	Jim Ross or Charles Matoesian, Illinois EPA, Suzanne King, EPA	Both Illinois EPA and USEPA are tracking and taking appropriate measures on national, regional and local levels on climate change. Both agencies have committed to an open exchange of information between the agencies as a top priority. USEPA will continue to have conference calls every other month involving the Region V states that provide updates and information on current climate change issues and allow an open exchange of information. Illinois EPA will continue to actively participate in these calls.	
USEPA Strategic Objective 1.2: Improve Air Quality. Achieve and maintain health-based air pollution standards and reduce risk from toxic air pollutants.				
USEPA 2011-2015 Strategic Outcomes – Reduce Criteria Pollutants and Regional Haze				
Work Plan Outputs/Measures/Outcomes – Federal Vehicle and Fuels Standards and Certification – Control Strategies				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities or Commitments**	**Performance Partnership Grant Status/Progress**
	Work with EPA in preparing SIPs and developing, implementing, and transitioning mobile source control strategies such as I/M, OBD, and state fuel programs.	Chris Demeroukas, Mike Hills, Steve Thorpe, Illinois EPA Pamela Blakley, EPA	VIM The Illinois EPA has an ongoing contract with Applus Technologies Inc. to continue On-Board Diagnostics (OBD) vehicle emissions testing in Illinois' ozone non-attainment areas. This contract provides testing through at least 2013, with the option of extending through 2015. Work to develop I/M SIP based on Motor Vehicle Emissions Modeling during 2012 and 2013 for new ozone standards. Continue to work with Region 5 in obtaining guidance from OTAQ concerning compliance with and revisions to 40 CFR Part 51, Subpart S – Inspection/Maintenance Program Requirements.	

		Mike Rogers, Illinois EPA Pamela Blakley, EPA	Fuels: The Illinois EPA is developing a rulemaking proposal to the Illinois Pollution Control Board to repeal the state's summertime gasoline volatility regulations as these rules are either identical in substance or less stringent than the existing federal fuel requirements.	
	Work with local Metropolitan Planning Organizations, EPA, and state and federal transportation agencies in future conformity determinations as needed.	Mike Rogers, Illinois EPA Pamela Blakley, USEPA	The Illinois EPA is an active participant in the transportation conformity consultation process. It will continue to work collaboratively with the Chicago Metropolitan Agency for Planning and the East West Gateway Council of Governments on future conformity determinations.	
	Continue to develop and submit control strategy SIPs and maintenance plans with motor vehicle emission budgets based on MOVES.	Mike Rogers, Illinois EPA Pamela Blakley, EPA	The Illinois EPA will be initiating a comment period on the (85 ppb) Chicago 8-hour ozone and annual PM2.5 Maintenance Plan SIPs and the Metro-East St. Louis 8-hour Ozone SIP. The three SIPs include motor vehicle emissions budgets develop utilizing the MOVES model.	
	Work on deletion of old state conformity MOUs and replacement conformity consultation MOUs, so that states can use the flexibility and be consistent with federal transportation conformity rules.	Mike Rogers, Illinois EPA Pamela Blakley, EPA	The Illinois EPA will be coordinating with the Chicago Metropolitan Agency for Planning, the East West Gateway Council of Governments and the Illinois Department of Transportation to develop either new MOUs or regulations dealing with the transportation conformity consultation requirements.	
	Work with EPA to develop creditable mobile source programs.	Darwin Burkhart, Illinois EPA Pamela Blakley, Anthony Maietta, EPA	The Illinois EPA will continue Stage I & Stage II Vapor Recovery programs while we review USEPA's July 15, 2011 proposed rule on implementing a nationwide June 2013 "widespread use" determination. If adopted, this could result in Illinois' discontinuation of its Stage II program. There are 2,455 affected gasoline dispensing facilities (mostly retail gas stations) in the Chicago area currently required to implement Stage I and Stage II volatile emissions controls. We currently are: determining what, if any comments we will make on the proposed rule; whether Illinois' "widespread use" date is appreciably earlier than the proposed nationwide date; what environmental benefits may be gained or lost if Illinois sought a waiver from the Stage II control requirement; and what, if any costs would be associated with discontinuing Stage II. Illinois EPA will work closely with USEPA as we follow USEPA's rulemaking and	

			understanding Illinois' options regarding Stage II.	
		Darwin Burkhart, Illinois EPA Pamela Blakley, Anthony Maietta, EPA	The Illinois EPA will continue the Tank Truck Certification program. Over 4,000 gasoline tanker trucks get their annual pressure vacuum vapor recovery test to check for stage I emissions.	
	Work with EPA to develop and continue voluntary mobile source programs and initiatives.	Darwin Burkhart, Illinois EPA Pamela Blakley, Anthony Maietta, EPA	The Illinois EPA will continue our involvement in the Chicago Area Clean Cities coalition and work to obtain federal grants to provide funding for heavy-duty fleets, taxi companies, and other niche fleets to switch to a clean fuel.	
		Darwin Burkhart, Illinois EPA Pamela Blakley, Anthony Maietta, USEPA	The Illinois EPA will continue the Illinois Alternate Fuels Rebate Program to support AFV purchases for both fleets and the general public.	
		Darwin Burkhart, Illinois EPA Pamela Blakley & Anthony Maietta, EPA	The Illinois EPA is enhancing the Illinois Green Fleets Program by partnering with Chicago Area Clean Cities, Clean Air Counts, and Chicago Climate Action Plan in recognizing more "green fleets," conducting comprehensive annual surveys of participating fleets, and providing more outreach and networking opportunities.	
Joint Priority	Continue to support the Midwest Clean Diesel Initiative (MCDI) including the management of state clean diesel grants, active involvement in state clean diesel coalitions, continued support of the Smartway program, and the promotion, generation and implementation of clean diesel funding, programs, projects, and policies.	Darwin Burkhart, Illinois EPA Pamela Blakley, Anthony Maietta, EPA	The Illinois EPA will continue to acquire additional funding and implement projects for the Illinois Clean Diesel Grant Program.	
		Darwin Burkhart, Illinois EPA Pamela Blakley, Anthony Maietta, EPA	The Illinois EPA will continue to chair the Illinois Clean Diesel Workgroup, which assists the agency in soliciting projects and conducting outreach.	

Work Plan Outputs/Measures/Outcomes – NAAQS Ambient Air Monitoring				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities or Commitments**	**Performance Partnership Grant Status/Progress**
	Operate monitors for other NAAQS pollutants, NCore, and PAMS according to 40 CFR Part 58, approved monitoring plans, and/or grant agreements including QMPs AND QAPPs.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	The Illinois EPA will submit the annual updates to the 5-Year Integrated Strategy Monitoring Plan each July along with the proposed air monitoring network plan for the next calendar year. The 2012 Illinois EPA monitoring network plan was submitted to Region 5 by July 1, 2011, following the 30 day comment period.	
		Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	The Illinois EPA will continue the operation of the four PAMS monitoring sites.	
		Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	The Illinois EPA will continue to coordinate the Illinois Monitoring Network along with Cook County Department of Environmental Control and special monitoring requests from the City of Chicago Department of Environment.	
		Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	The Illinois EPA will continue to participate in the real-time ozone and particulate reporting system (AIR NOW) and support the daily forecast program.	
		Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	The Illinois EPA will continue operation of the $PM_{2.5}$ monitoring network.	
		Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	The Illinois EPA will continue to implement the Northbrook Ncore program and will assist Region 5 in the implementation of the Bondville NCore site.	

		Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	The Illinois EPA will continue to perform any and all audits necessary to maintain accurate monitors and monitoring data.	
	All state/local primary quality assurance organizations submit NAAQS pollutant data, PAMS, and QA data to AQS directly or indirectly through another organization according to schedule in 40 CFR Part 58.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Illinois EPA will submit air quality data to AQS on the schedules required. Illinois EPA will submit quality assurance and PEP data on the schedules required.	
	Certify 2011 NAAQS and toxics pollutant data in AQS and provide supporting documentation by May 1, 2012.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	The annual certification letter and statistical data summaries will be sent by May 2012.	
	Submit DML formatted AQS data by the end of 2012 or at the latest the end of 2013.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Continuous and intermittent air quality data will be sent to AQS in DML format as soon as possible. A test data submittal will be made to AQS in 2012. AMS is in the process of preparing to submit the test data.	

	Submit 2013 annual network plan required by 40 CFR §58.10, by July 1, 2012, unless another schedule has been approved. The plan should provide for the movement or start-up of additional ozone monitoring stations associated with smaller urban areas and non-urban areas, if required. If finalized the ozone monitors should be operational the first day of ozone season in 2013. The plan should also consider SO2 monitoring required in core Base Statistical Areas (CBSA's) based on populations emissions. All new SO2 monitoring is required to be operational by January 1, 2013. The plan should also consider NO2 Roadway monitoring is required to be operational by January 1, 2013.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	A complete network review will be completed by May 1, 2012, and a draft plan for 2013 prepared by June 1, 2012. The proposed plan will be made available for public review 30 days before submittal to USEPA. Any new air monitoring requirements promulgated by USEPA and effective for 2013 will be included in the proposed 2013 plan. This is the annual process and the 2012 plan followed the process.	
	Ensure adequate, independent QA audits of NAAQS monitors, including PEP and NPAP or equivalent.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	All required QA audits will be performed. Illinois EPA will expand its QA and auditing staff and obtain additional auditor training.	
	Report real time ozone and $PM_{2.5}$ data to AIRNOW for cities required to report the AQI.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Ozone and PM2.5 data will be sent daily (business days) to AIRNOW along with next day forecasts and Air Pollution Action Day declarations.	
	Implement lead monitoring at non-source-oriented At NCore sites in CBSAs over 500,000 people.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Lead monitoring at the Northbrook NCore site has been in place since 2008 and will continue as required.	

	Attend the annual Region 5 State/Local/Tribal Air Monitoring Contacts meeting, Participate in the monthly S/L/Tribal monitoring calls. Attend the Triennial National Monitoring conference, the annual AQS conference and the annual QA conference if they are held.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Illinois EPA will attend the annual Region 5 Contacts meeting. Attendance at the National meeting outside of Illinois will occur only if out-of-state travel for air monitoring is approved.	
	Reporting – Illinois EPA and EPA will endeavor to conduct weekly conference calls beginning the first week of October, 2011 between the Illinois EPA Air Monitoring Section Manager (or his or her designee) and EPA AMAS Section Chief (or his or her designee); unless an alternative schedule is agreed to by both parties. These calls are intended to provide EPA updates on training, staffing, and equipment replacement and purchases.	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Illinois EPA will participate in conference calls with EPA to discuss updates on training, staffing, and equipment replacement and purchases.	
	Worksharing/Training - EPA will provide technical support to Illinois EPA QA auditing staff to ensure QA and Performance Evaluation Program (PEP) audit proficiency. Training will be conducted in Region 5 and/or the Illinois EPA NCore Site. Training topics will cover: a. Performance audits for ozone, Sulfur Dioxide (SO_2) and Carbon Monoxide (CO) monitor to provide an in-the-laboratory procedures review, certification of auditing	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Illinois EPA staff will participate in audit and validation training.	

	equipment and on-the-bench auditing of ambient monitors. The purpose of this training is to provide specific hands on training for the performance of QA audits of these gas analyzers. b. In-the-field audits of ozone, SO_2 and CO monitors to conduct comparison QA audits at priority monitoring sites using both EPA and Illinois EPA audit equipment. The purpose of this activity is to provide in-the-field experience in performing audits, inter-agency comparison of audit results and to provide an independent audit of Illinois EPA analyzers. c. Particulate Matter$_{2.5}$ ($PM_{2.5}$) PEP Audit program to provide an overview of the PEP audit requirements, procedures and certification of audit equipment. Conduct actual PEP audits at priority $PM_{2.5}$ sites. The purpose of this activity is to provide in-the-field experience in performing audits and reporting of results. d. Additional data validation training will be conducted through the Lake Michigan Air Directors Consortium in			

	Rockford, IL on October 25-26, 2011. Illinois EPA will provide the names (or at least the number of staff) that will be attending this training. Training will be updated in the weekly calls.			
	Equipment Replacement	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Illinois EPA will provide regular updates, in addition to the status of any additional equipment, in the weekly calls. Illinois EPA agrees to prioritize their existing equipment replacement schedule and create and submit to EPA, an equipment replacement plan and schedule by December 1, 2011. EPA recognizes that this is an evergreen document that will be revised from time to time to reflect funding, regulatory changes, and unexpected events; e.g., damage to a monitoring site due to tornado, hail, rain, vandalism, etc.	
	Near Roadway Nitrogen Dioxide (NO_2) network	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Illinois EPA will provide regular updates, in addition to the status of any additional equipment, in the weekly calls. If funding is timely provided by EPA, Illinois EPA will purchase the equipment necessary for the NO_2 Near Roadway Network, and the site will be operational by January 2013.	
	Lead (Pb)	Air Monitoring Section Manager or his designee, Illinois EPA Loretta Lehrman, Marta Fuoco, EPA	Illinois EPA will upload the Juarez Pb monitoring data into Air Quality System (AQS); Illinois EPA will identify the monitoring type as 'Non-Regulatory' in AQS. Second phase lead monitoring will be implemented December 29, 2011.	

Work Plan Outputs/Measures/Outcomes – Attainment Planning and Maintenance				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities or Commitments**	**Performance Partnership Grant Status/Progress**
	Review air quality reports and take appropriate actions dealing with new violating attainment areas with any of the NAAQS.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will continue to review air quality data and will take appropriate actions to address new violating areas.	
	As appropriate, submit redesignation requests including maintenance plans for areas with	Rob Kaleel or his designee, Illinois EPA Douglas Aburano,	The Illinois EPA submitted Maintenance Plans and redesignation requests for the Chicago and Metro-East nonattainment areas as both areas have attained the 1997 8-hour ozone standard. The	

	clean air quality data.	Edward Doty, EPA	Illinois EPA will update these plans to include conformity budgets using the MOVES mobile source emissions model.	
		Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA submitted a Maintenance Plan and redesignation request for the Chicago area for the $PM_{2.5}$ annual standard based on air quality data from 2006-08. USEPA published its final clean data finding which satisfies the obligation to submit an attainment demonstration for Chicago. Illinois EPA has submitted data and is seeking a clean data finding for PM2.5 fort eh Metro-East area.	
	Continue to implement 8-hr ozone SIPs.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will continue to implement the SIP developed for the 8-hour ozone NAAQS.	
	Submit any outstanding 1997 $PM_{2.5}$ and ozone SIP elements, including SIPs due for the 1997 8-hour ozone Subpart 1 nonattainment areas that were reclassified to Subpart 2 and SIPs due for the 1997 8-hour ozone moderate nonattainment areas that were reclassified to serious.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA is revising the VOC RACT rules in response to comments received from USEPA. These rules will be submitted as SIP revisions after approval by the Illinois Pollution Control Board.	
	Prepare recommendations on designations for revised NAAQS.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will provide timely recommendations on attainment/nonattainment designations as NAAQS are revised by USEPA.	
	Facilitate implementation of NOx and SO2 requirements under Transport Rule.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will facilitate implementation of CAIR and the new Cross-State Air Pollution Rule by affected sources in Illinois.	
	Begin evaluating technical information used to support 2011 $PM_{2.5}$, CO, and ozone NAAQS state recommendations for designations.	Rob Kaleel or his designee, Illinois EPA, Douglas Aburano, Edward Doty, EPA	The Illinois EPA will provide timely recommendations on attainment/nonattainment designations as NAAQS are revised by USEPA.	

	Consult with EPA, as necessary, to finalized area designations for the NO_2 primary and SO_2 primary NAAQS.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA provided timely recommendations on attainment/nonattainment designations for the revised NO2 and SO2 NAAQS. The Illinois EPA will continue to work with USEPA to finalize the area designations.	

	Continue to implement SIPs for 1997 $PM_{2.5}$ and ozone NAAQS.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will continue to implement the SIP developed for the 1997 8-hour ozone and PM2.5 NAAQS.	
	Develop and submit 2006 $PM_{2.5}$ NAAQS SIPs. (Due no later than December 2012.)	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	Illinois does not have any areas designated as nonattainment for the 2006 PM2.5 NAAQS.	
	Work with EPA to develop and implement local ozone reduction programs to help achieve attainment of 2011 8-hour ozone NAAQS to designations process.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will continue to work with USEPA to develop and implement local ozone reduction programs.	
	Submit SIPs for the § 110(a)(2) infrastructure. (Due in October 2011.)	Rob Kaleel or his designee, Illinois EPA	The Illinois EPA will timely submit Infrastructure SIPs under § 110(a)(2).	
	Submit SIPs for lead NAAQS. (Due January 2013.)	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will submit timely attainment SIPs for areas designated nonattainment for the lead NAAQS.	
	Submit SIPs for the areas designated lead nonattainment areas in December 2010. (Due June 2012.)	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will submit timely attainment SIPs for areas designated nonattainment for the lead NAAQS.	

	Conduct public notifications and education efforts, including reporting air quality forecasts and current conditions for ozone and particle pollution.	Kim Biggs, Illinois EPA	The Illinois EPA maintains the air quality notification system, EnviroFlash, for six regions in Illinois, providing daily air quality forecasts and air quality alerts. The Agency, in conjunction with Partners for Clean Air has been increasing enrollment in the notification system since 2009 with more than 3,000 current subscribers. Public education and outreach was expanded with May 2011 being declared Air Quality Awareness Month in Illinois. This included an education campaign launched in the Chicago area to encourage residents to "Get to Know YOUR Air Quality". The campaign featured sponsored weather segments where the daily forecast was reported, radio ads, and print ads. The Illinois EPA and Partners will be expanding the "Get to Know YOUR Air Quality" to a year round campaign, encouraging residents to sign up for air quality forecasts through U.S.EPA's EnviroFlash program.	
	Assist with outreach and capacity building for minority, low-income and indigenous communities to improve understanding of and engagement in regulatory and permitting processes.	Brad Frost, Illinois EPA	Utilize the Illinois EPA Environmental Justice Policy. Notify the Environmental Justice Officer of projects in Environmental Justice areas. Participate in the Illinois EPA Environmental Justice Advisory Group.	
	Consult with EPA as necessary to finalize area designations on revised 2008 ozone and lead NAAQS.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will continue to consult with USEPA on area designations for the revised ozone and lead NAAQS.	
Work Plan Outputs/Measures/Outcomes – Regional Haze – Attainment Planning and Maintenance				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities or Commitments**	**Performance Partnership Grant Status/Progress**
	Continue to work with EPA, Region 5 on issues related to submitted regional haze SIPs.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will continue to consult with USEPA on issues related to Illinois' regional haze SIP.	
	Implement BART requirements.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will continue to implement BART emission limits through federally enforceable permits.	

	Submit any outstanding regional haze SIP elements.	Rob Kaleel or his designee, Illinois EPA Douglas Aburano, Edward Doty, EPA	The Illinois EPA will work with LADCO and other Midwestern states to prepare and submit a mid-course review of the progress goals established in the regional haze SIP.	
Work Plan Outputs/Measures/Outcomes - Permitting				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities or Commitments**	**Performance Partnership Grant Status/Progress**
	Provide timely review of construction permits issued compliant with Greenhouse Gas BACT.	Assigned permit engineers, Illinois EPA Genevieve Damico, EPA	PSD/NSR Permitting: Illinois EPA will process construction permit applications, including PSD and New Source Review applications, as appropriate, will notify EPA of any GHG BACT applications during the monthly conference calls, and will provide EPA with an electronic copy of the permit application on or before the date the public comment period begins on a draft permit.	
	Target issuance of major PSD/NSR permits within one year of receiving a complete permit application.	Assigned permit engineers, Illinois EPA Genevieve Damico, EPA	The Illinois EPA will continue to issue construction permits and PSD and NSR permits as expeditiously as practicable.	
	Issue NSR permits consistent with CAA requirements and enter BACT/LAER determinations in the RACT/BACT/LAER Clearinghouse (RBLC).	Ed Bakowski or his designee, Illinois EPA Genevieve Damico, EPA	The Illinois EPA will continue to timely submit data to the RACT/BACT/LAER Clearinghouse.	
	Provide timeliness data on NSR permits issued for new major sources and major modifications by entering data including “the application accepted date” and “the permit issuance date” in to the RBLC national database.	Ed Bakowski or his designee, Illinois EPA Genevieve Damico, EPA	The Illinois EPA will provide timeliness data.	

	PSD-delegated States coordinate with EPA to ensure that Endangered Species Act consultations are handled in a timely manner.	Assigned permit engineers, Illinois EPA Genevieve Damico, EPA	As related to consultation under the federal Endangered Species Act (ESA), consultation with the USFWS for the planned issuance of permits for proposed projects will be performed by EPA, working directly with applicants for proposed projects. The Illinois EPA will instruct applicants to directly contact EPA to initiate EPA's ESA review and consultation. The Illinois EPA and EPA will attempt to coordinate their respective roles in permitting so that ESA consultation is handled in an efficient and timely manner and that the ESA consultation process does not unduly delay the issuance of PSD permits.	
	Provide PSD/NSR permit applications to EPA prior to the start of the public comment period.	Assigned permit engineers, Illinois EPA Genevieve Damico, EPA	The Illinois EPA will process construction permit applications, including PSD and New Source Review applications, as appropriate, and will provide EPA with an electronic copy of the permit application on or before the date the public comment period begins on a draft permit. The Illinois EPA and EPA will continue to hold monthly permit program calls and New Source Review permit calls for issue resolution and information sharing.	

USEPA Strategic Goal: 1 – Taking Action on Climate Change & Improving Air Quality				
USEPA Strategic Objective 1.1: Address Climate Change. Reduce the threats posed by climate change by reducing greenhouse gas emissions and taking appropriate actions				
Work Plan Outputs/Measures/Outcomes – Air Toxics				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities or Commitments**	**Performance Partnership Grant Status/Progress**
	Emission Inventory: (1) Develop HAP emission inventories for submission to EPA's National Emissions Inventory (NEI) database; (2) submit data for the integrated HAP emissions inventory; (3) Quality assure, validate, and revise NEI data using EIS; and (4) Participate in Regional emission inventory workgroup conference calls.	David Asselmeier or his designee, Illinois EPA Carlton Nash, Suzanne King, EPA	The Illinois EPA will continue to provide appropriate and accurate data and work together with EPA to review and ensure the quality of data.	

	Implement delegated 112 of the Clean Air Act, as appropriate, for major sources residual risk, and area sources.	Rob Kaleel or his designee, Illinois EPA Carlton Nash, Suzanne King, EPA	Illinois EPA continues to be an active participant in the implementation of standards under Section 112 of the Clean Air Act (e.g., MACT, area source NESHAPs). Illinois EPA has delegated authority for implementation of these regulations. Illinois EPA will continue to provide outreach, education, and other assistance to affected sources primarily through the Small Business Environmental Assistance Program.	
	Participate in the quarterly State/Region 5 risk assessment conference calls. Participate in annual State/Region 5 air toxics meeting.	Rob Kaleel or his designee, Illinois EPA Carlton Nash, Suzanne King, EPA	Illinois EPA will continue to participate in quarterly Region 5 conference calls and annual air toxics meetings as appropriate.	
	Review and analyze NATA data, as available. Region 5 will provide timely access to and assistance to the review of the NATA data.	Rob Kaleel or his designee, Illinois EPA Carlton Nash, Suzanne King, EPA	Illinois EPA will continue to participate in the review process for NATA.	
	Participate as appropriate in research projects, policy issues and task forces that address identification and reduction of persistent bio-accumulative air toxic pollutants.	Rob Kaleel or his designee, Illinois EPA Carlton Nash, Suzanne King, EPA	Illinois EPA remains open to discussions involving its participation in a Regional Air Toxics Priority Project and/or addressing High Risk Point Sources as identified through NATA. Illinois may participate to the extent appropriate, in consideration of available resources, through emissions verification, data review and site visits.	
	Great Lakes Air Deposition Program: Address the deposition of persistent bioaccumulative toxics (PBTs) in the waterways of the Great Lakes Region. This effort includes, but is not limited to, PBT air monitoring, source characterization, source allocation, and source reduction efforts.	David Asselmeier or his designee, Illinois EPA Erin Newman, EPA	Illinois EPA will continue to participate in the on-going discussions regarding the inventory compilation and the design of the new RAPIDS 3.x software.	

USPEA Strategic Goal: Enforcing Environmental Laws				
USEPA Strategic Objective 5.1: Enforcement Environmental Laws. Pursue vigorous civil and criminal enforcement that targets the most serious water, air, and chemical hazards in communities. Assure strong, consistent, and effective enforcement of federal environmental laws nationwide.				
Work Plan Outputs/Measures/Outcomes - Monitoring				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Accomplishments**	**Performance Partnership Grant Status/Progress**
	Submit draft Compliance Monitoring Strategy (CMS) plan for review, negotiation and approval by EPA. (September 1, 2011) Implementation of the final CMS plan will begin the upcoming federal fiscal year, as it pertains to non-Title V sources. The CMS plan should meet EPA's September 10, 2010 CAA Stationary Source CMS policy.	Steve Youngblut or his designee, Illinois EPA Rochelle Marceillars, Joseph Koester, EPA	The Illinois EPA will continue to submit and implement the Illinois CMS plan as approved by EPA. The CMS source category and frequency flags in AFS will be completed for non-Title V major source universe by the State by October 1, 2011. U.S. EPA shall submit written correspondence to Illinois EPA approving or disapproving the CMS plan submittal. (December 31, 2011)	
	Sources/landfills subject to the asbestos NESHAP regulations will be inspected in accordance with EPA's March 31, 1988 Revised Asbestos NESHAP Strategy. (Ongoing)	Steve Youngblut or his designee, Illinois EPA Brent Marable, EPA	The Illinois EPA will continue to inspect sources/landfills in accordance with EPA's March 31, 1988, Revised Asbestos NESHAP Strategy.	
	Track State Review Framework recommendations made by EPA to the States until completion and provide updates to USEPA, as it pertains to non-Title V sources. (Quarterly)	Ray Pilapil, David Bloomberg, Steve Youngblut, Julie Armitage, Illinois EPA Brent Marable, Rochelle Marceillars, EPA	The Illinois EPA will continue to track EPA's SRF recommendations until completion.	
	Respond to citizen complaints including those referred from EPA.	Steve Youngblut, Illinois EPA, Brent Marable, EPA	The Illinois EPA will continue to respond to citizen complaints and inspections will be conducted where necessary.	

Work Plan Outputs/Measures/Outcomes – Enforcement - Reporting				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Accomplishments**	**Performance Partnership Grant Status/Progress**
	Submit compliance and enforcement information to meet EPA's Minimum Data Requirements (MDRs) within the 60 day standard required for reporting by the current Air Facility System (AFS) Information Collection Request (ICR). Ensure data is complete, accurate and timely consistent with EPA policies and ICR, as it pertains to non-Title V sources. Such language should be included in the written agreement between the State and EPA. (60 day reporting as required by ICR)	Ray Pilapil, David Bloomberg, Steve Youngblut, Julie Armitage, Illinois EPA Rochelle Marceillars, Joseph Koesters, EPA	The Illinois EPA will submit MDRs in accordance with the current AFS ICR.	
	Asbestos notification information, compliance evaluations and enforcement activities will be reported alphabetically by owner or operator to the EPA by the State. (Annually)	Steve Youngblut or his designee, Illinois EPA Rochelle Marceillars, EPA	The Illinois EPA will report the gross count of Asbestos notifications received and will provide EPA with a list of inspections performed and enforcement actions taken.	
	Report Continuous Emission Monitoring (CEM) Information	Ray Pilapil, David Bloomberg, Illinois EPA Kevin Vuilleumier, EPA	Illinois EPA will provide to U.S. EPA, at the minimum, the name and city of facilities reporting CEMS to Illinois EPA, as it pertains to non-Title V sources.	

Work Plan Outputs/Measures/Outcomes - Enforcement				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Accomplishments**	**Performance Partnership Grant Status/Progress**
	Compliance and Enforcement Activities	Ray Pilapil, David Bloomberg, Steve Youngblut, Julie Armitage, Illinois EPA Brent Marable, Debra Flowers, Rochelle Marceillars, EPA	EPA and Illinois EPA will conduct monthly conference calls to discuss planning, program progress, compliance and enforcement issues, Federal and State HPV cases, data management and reporting, and efforts to resolve violations, as it pertains to non-Title V sources. For State lead HPV cases unaddressed over the 270 day timeframe, EPA will provide notice to Illinois EPA of EPA's intent to take or maintain the lead for the case and will discuss the status of the state case with the Illinois EPA. Any data issues will also be discussed on the conference calls.	
	HPV sources listed on Headquarters Watch List, as it pertains to non-Title V sources - the Watch List ensures timely and appropriate response to significant non-compliers or longstanding violators through better data analysis and routine discussions between EPA HQs OECA, Region 5 EPA and/or Illinois EPA. (Quarterly)	Ray Pilapil, David Bloomberg, Illinois EPA Rochelle Marceillars, EPA	The Illinois EPA will continue to provide to EPA the status codes and explanations for the HPV sources listed on Headquarters' Watch List as it pertains to Non-Title V sources.	
	State will conduct its enforcement activities in accordance with the December 22, 1998, EPA Timely and Appropriate Enforcement Response to High Priority Violations (HPVs) policy, October 25, 1991, Clean Air Act Stationary Source Civil Penalty policy and March 31, 1988, Revised Asbestos NESHAP Strategy, as it pertains to non-Title V sources. (Ongoing)	Ray Pilapil, David Bloomberg, Julie Armitage, Steve Youngblut, Illinois EPA Brent Marable, EPA	The Illinois EPA will continue to conduct enforcement activities in accordance with the policies identified in the Template Measures.	

APPENDIX A

Title V

Title V activities are not part of the State Air Pollution Control Program funded with EPA Clean Air Act funding.

USEPA Strategic Goal: 1 Clean Air & Global Climate Change				
USEPA Strategic Objective 1.2: Improve Air Quality. Achieve and maintain health-based air pollution standards and reduce risk from toxic air pollutants.				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities or Commitments**	**Performance Partnership Grant Status/Progress**
	Target of the issuance significant power plant and refinery Title V permits in FY 2012.	Ed Bakowski or his designee, Illinois EPA Genevieve Damico, EPA	Recognizing that the Work Plan commitments have the highest priority and the limitations on processing the Title V power plant permits that are under appeal, to the extent practicable, the Illinois EPA will then prioritize the issuance of significant power plant and refinery Title V permits.	
	Obtain a reduction in Title V renewal backlog in accordance with the Work Plan established between Illinois EPA and EPA Region.	Ed Bakowski or his designee, Illinois EPA Genevieve Damico, EPA	Illinois EPA will meet or exceed the commitments established in the Work Plan established between Illinois EPA and EPA Region.	
	Provide timeliness data on new and renewal of Title V permits and significant permit modifications to EPA Regional office for entry into TOPS.	Assigned permit engineers Genevieve Damico, EPA	Illinois EPA will enter new and renewed Title V permits and significant modification data into TOPs by January 31 and July 31 of each year.	
USEPA Strategic Goal: Enforcing Environmental Laws				
USEPA Strategic Objective 5.1: Enforcement Environmental Laws. Pursue vigorous civil and criminal enforcement that targets the most serious water, air, and chemical hazards in communities. Assure strong, consistent, and effective enforcement of federal environmental laws nationwide.				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Accomplishments**	**Performance Partnership Grant Status/Progress**
	Submit draft Compliance Monitoring Strategy (CMS) plan for review, negotiation and approval by EPA. (September 1, 2011) Implementation of the final CMS plan will begin the upcoming federal fiscal year. The CMS plan should meet EPA's September 10, 2010 CAA Stationary Source CMS policy.	Steve Youngblut, Ernie Kierbach, Illinois EPA Rochelle Marceillars, Joseph Koester, EPA	The Illinois EPA will continue to submit and implement the Illinois CMS plan as approved by EPA. The CMS source category and frequency flags in AFS will be completed for Title V major source universes by the State by October 1, 2011.U.S. EPA shall submit written correspondence to Illinois EPA approving or disapproving the CMS plan submittal. (December 31, 2011)	

	Track State Review Framework recommendations made by EPA to the States until completion and provide updates to USEPA. (Quarterly)	Ray Pilapil, David Bloomberg, Steve Youngblut, Julie Armitage, Illinois EPA Brent Marable, Rochelle Marceillars, EPA	The Illinois EPA will continue to track EPA's SRF recommendations until completion.	
	Respond to citizen complaints including those referred from EPA.	Steve Youngblut, Illinois EPA Brent Marable, EPA	The Illinois EPA will continue to respond to citizen complaints and inspections will be conducted where necessary.	

Work Plan Outputs/Measures/Outcomes – Enforcement - Reporting				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Accomplishments**	**Performance Partnership Grant Status/Progress**
	Submit compliance and enforcement information to meet EPA's Minimum Data Requirements (MDRs) within the 60 day standard required for reporting by the current Air Facility System (AFS) Information Collection Request (ICR). Ensure data is complete, accurate and timely consistent with EPA policies and ICR. Such language should be included in the written agreement between the State and EPA. (60 day reporting as required by ICR)	Ray Pilapil, David Bloomberg, Steve Youngblut, Julie Armitage, Illinois EPA Rochelle Marceillars, Joseph Koesters, EPA	The Illinois EPA will submit MDRs in accordance with the current AFS ICR.	
	Asbestos notification information, compliance evaluations and enforcement activities will be reported alphabetically by owner or operator to the EPA by the State. (Annually)	Steve Youngblut, Illinois EPA Rochelle Marceillars, EPA	The Illinois EPA will report the gross count of Asbestos notifications received and will provide EPA with a list of inspections performed and enforcement actions taken.	
	Report Continuous Emission Monitoring (CEM) Information	Ray Pilapil, David Bloomberg, Illinois EPA Kevin Vuilleumier, EPA	Illinois EPA will provide to U.S. EPA, at the minimum, the name and city of facilities reporting CEMS to Illinois EPA.	

Work Plan Outputs/Measures/Outcomes - Enforcement				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Accomplishments**	**Performance Partnership Grant Status/Progress**
	Compliance and Enforcement Activities	Ray Pilapil, David Bloomberg, Steve Youngblut, Julie Armitage, Illinois EPA Brent Marable, Debra Flowers, Rochelle Marceillars, EPA	EPA and Illinois EPA will conduct monthly conference calls to discuss planning, program progress, compliance and enforcement issues, Federal and State HPV cases, data management and reporting, and efforts to resolve violations. For State lead HPV cases unaddressed over the 270-day timeframe, EPA will provide notice to Illinois EPA of EPA's intent to take or maintain the lead for the case and will discuss the status of the state case with the Illinois EPA. Any data issues will also be discussed on the conference calls. (Monthly)	
	HPV sources listed on Headquarters' Watch List - the Watch List ensures timely and appropriate response to significant non-compliers or longstanding violators through better data analysis and routine discussions between EPA HQ's OECA, Region 5 EPA and/or Illinois EPA. (Quarterly)	Ray Pilapil, David Bloomberg, Illinois EPA Rochelle Marceillars, EPA	The Illinois EPA will continue to provide to EPA the status codes and explanations for the HPV sources listed on Headquarters' Watch List as it pertains to Title V sources.	
	State will conduct its enforcement activities in accordance with the December 22, 1998, EPA Timely and Appropriate Enforcement Response to High Priority Violations (HPVs) policy, October 25, 1991, Clean Air Act Stationary Source Civil Penalty policy and March 31, 1988, Revised Asbestos NESHAP Strategy. (Ongoing)	Ray Pilapil, David Bloomberg, Julie Armitage, Steve Youngblut, Illinois EPA Brent Marable, EPA	The Illinois EPA will continue to conduct enforcement activities in accordance with the policies identified in the Template Measures.	

Attachment B: Bureau of Land

Illinois Environmental Protection Agency 2012/2013 Performance Partnership Agreement/Performance Partnership Grant

Grant Code	Template Measures	Contacts	Performance Partnership Agreement Planned Activities	Performance Partnership Grant Status/Progress
Strategic Goal 3: Cleaning up Communities & Advancing Sustainable Development				
Strategic Objective 3.1: Preserve Land				
Work Plan Outputs/Measures/Outcomes – Hazardous Waste Management				
Grant Code CFDA 66.801	**Template Measures**	**Contacts** Paul Little-EPA	**Performance Partnership Agreement Planned Activities**	**Performance Partnership Grant Status/Progress**
	Number of hazardous waste facilities with new or updated controls.	Rob Watson	% of hazardous waste managed Treatment, Storage, and Disposal facilities with controls in place	
		Steve Nightingale	Review and reissue RCRA Part B operating permits in response to renewal applications.	
	Amount of hazardous waste managed at commercial treatment/disposal facilities annually	Hope Wright	Report tons of hazardous waste managed at commercial treatment/disposal facilities	
	% of Resource Conservation and Recovery Act (RCRA) regulated & inspected sites will be in full compliance, under an accepted compliance commitment agreement, or referred for formal enforcement within 180 days of inspection date	Brian White	Report Significant Non-Compliers (SNC) rate within compliance monitoring program.	
		Bill Ingersoll	Assess and report environmental benefits that are achieved due to resolution of enforcement cases that involve P2, SEPs, etc.	
	Ensure proper closure and post-closure of all inactive hazardous waste landfills	Rob Watson	Report % of Government Performance Results Act (GPRA) Baseline Post-Closure Universe facilities brought under control.	
	Ensure groundwater monitoring at permitted facilities that treat, store and dispose of hazardous waste.	Terri Myers	Report % of hazardous waste management facilities conducting detection monitoring and report % of hazardous waste management facilities conducting assessment/compliance monitoring.	
	Routine compliance monitoring activities	Mike Davison	Conduct 16 Compliance Evaluation Inspections (CEI) at Treatment, Storage, Disposal Facilities (TSDFs)	

		Mike Davison	Conduct & Report Comprehensive Groundwater Monitoring Evaluations (GME) at TSDFs	
		Mike Davison	Conduct 12 Operation & Maintenance (O & M) at TSDFs	
		Mike Davison	Conduct at least 1 Compliance Schedule Evaluation (CSE) at TSDFs	
		Brian White	Conduct & Report Financial Record Reviews (FRR) at TSDFs	
		Mike Davison	Conduct & Report Non-Financial Record Reviews (NRR) at TSDFs & generators.	
		Mike Davison	Conduct 189 CEIs for large quantity generators	
		Mike Davison	Conduct 265 CEIs for small quantity generators	
		Mike Davison	Conduct & Report CEI conducted at conditionally-exempt small quantity generators	
		Mike Davison	Conduct & Report CEI for transporters	
		Mike Davison	Conduct & Report CEI for non-handlers & generator status not determined	
	Non-routine compliance monitoring activities	Mike Davison	Conduct & Report of citizen complaints and investigations	
		Mike Davison	Conduct & Report follow-up inspections (FUI)	
		Mike Davison	Conduct & Report case development inspections	
		Mike Davison	Conduct & Report focused compliance inspections	
	RCRAInfo Data Management	Mike Davison	Illinois EPA will timely enter all RCRAInfo data fields for which it is the State implementer of record (IOR). The IOR tables in RCRAInfo define the fields for which Illinois is the owner and has data entry responsibilities. Data will be entered within one month of the completion of any recordable RCRA program activity. Illinois EPA will also maintain and update implementer owned codes in the RCRAInfo look-up tables, will keep the RCRA program universe records current, and will submit biennial report files in accordance with timeframes established by EPA's Office of Resource Conservation and Recovery.	

	Oversight Arrangement	Todd Marvel	Illinois EPA will: a) Conduct an annual mid-year program meeting; b) Conduct at least quarterly program enforcement conference calls; c) Conduct joint inspections as needed or requested; and d) Investigate and respond to inquiries from EPA concerning facilities that do not appear to have been timely and/or appropriately addressed under Illinois' enforcement program. This will include at least one annual meeting between EPA and Illinois EPA to discuss the file audit results.	
Work Plan Outputs/Measures/Outcomes – Underground Injection Control Program				
Grant Code CFDA 66.433	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities**	**Performance Partnership Grant Status/Progress**
		Bur Filson	Class I Permitting: By December 31, 2011, Illinois EPA will issue a draft decision on Cabot's application to renew its permit for two Class I hazardous wells.	
		Bur Filson	Class I Inspections: Illinois EPA will conduct one inspection at each of the 3 Class I facilities annually covering the 4 Class I wells in the State's inventory.	
		Bur Filson	Class I File Reviews: Illinois EPA will conduct monthly compliance reviews of required reports from operators (includes monthly monitoring reports and well log data).	
		Bur Filson	Class I MITs (National Program Measure): Illinois EPA will ensure that 100% of Class I wells that lose MI are returned to compliance within 180 days. (SDW-7)	

		Bur Filson	Class V Closures (National Program Measure): In the first year of this agreement, Illinois EPA will close 1 high priority Class V well found within Illinois wellhead protection areas. Illinois EPA will use informal methods and enforcement including, but not limited to, violation notices and compliance commitment agreements, to close Class V wells in sensitive areas. Illinois EPA will report the number of closed Class V wells and notify USEPA regarding progress in closing other Class V wells within sensitive areas in Illinois. At the mid-term, Illinois EPA and USEPA will jointly review the State's progress and plan for the Class V actions to be taken in the second year of this agreement.	
		Bur Filson	Reporting: Illinois EPA will provide Program Activity Measure data and 7520s to USEPA by April 15th and October 15th. Illinois EPA will also provide well inventory data on or before January 15th.	
		Bur Filson	Carbon Sequestration (National Program Indicator): Illinois EPA will carry out the following activities as resources allow. Illinois EPA will collaborate with USEPA on Class VI permits and on regional and national issues as they evolve, particularly in relation to primacy, regulatory developments, and policy changes. Illinois EPA and USEPA will facilitate interaction and exchange between key stakeholders such as DOE-funded research groups, other state and federal regulators, and environmental groups through avenues such as meetings and workshops to expand regional experience with and expertise on carbon sequestration.	

Strategic Objective 3.2: Restore Land				
Work Plan Outputs/Measures/Outcomes – Resource Conservation & Recovery Act (RCRA)				
Grant Code CFDA 66.801	**Template Measures**	**Contacts** Joe Cisneros-EPA	**Performance Partnership Agreement** **Planned Activities**	**Performance Partnership Grant** **Status/Progress**
	Number of 2020 GPRA baseline facilities with human exposures under control	Jim Moore	Take necessary actions to help Region 5 to achieve FY12 and FY13 GPRA goals. Achieve 81% and 85% of human exposures brought under control in FY12 and FY13 respectively.	
	Number of 2020 GPRA baseline facilities with migration of contaminated groundwater under control	Terri Myers	Take necessary actions to help Region 5 to achieve FY12 and FY13 GPRA goals. Achieve 69% and 73% of migration to groundwater brought under control in FY12 and FY13 respectively.	
	Number of 2020 GPRA baseline facilities with remedy construction complete	Jim Moore	Take necessary actions to help Region 5 to achieve FY12 and FY13 GPRA goals. Achieve 46% and 51% of remedy construction are to be completed in FY12 and FY13 respectively.	
		Mike Davison	Require investigation and cleanup of releases at hazardous waste management facilities.	
		Brian White	Financial Record Reviews (FRR), Illinois EPA will conduct financial assurance reviews to verify compliance status with the RCRA financial assurance requirements.	

Strategic Goal 5: Enforcing Environmental Laws				
Strategic Objective 5.1: Enforce Environmental Laws				
Work Plan Outputs/Measures/Outcomes – Office of Solid Waste and Emergency Response				
Grant Code CFDA 66.605	**Template Measures**	**Contacts** Mardi Klevs-EPA	**Performance Partnership Agreement** **Planned Activities**	**Performance Partnership Grant** **Status/Progress**
	TSCA Activities	Beth Unser	Conduct routine TSCA inspections statewide as mutually agreed. Illinois EPA will perform 26 PCB inspections for FY12. Inspections will be targeted according to joint inspection priorities determined by Illinois EPA and USEPA. At least 5 inspections will be conducted at natural gas pipeline compressor stations. Natural gas inspections will be done at both interstate and local distribution companies.	

		Beth Unser	Submit inspection reports in a timely manner, including quarterly spreadsheet of the inspections conducted. Each inspection report will include mention as to whether the area where the inspection took place meets the State's environmental justice criteria.	
		Beth Unser	Will provide oversight of PCB remediation activities by site visits or written or verbal communication.	
		Beth Unser	Continue participation in USEPA's digital inspector program by gathering inspection data electronically and will update equipment and software as funding allows.	
		Beth Unser	Inspectors will attend annual training.	
Work Plan Outputs/Measures/Outcomes – Enforcement and Rules Development/Authorization				
Grant Code CFDA 66.801	**Template Measures**	**Contacts** Paul Little-EPA	**Performance Partnership Agreement Planned Activities**	**Performance Partnership Grant Status/Progress**
	Enforcement and Rules Development Activities	Dan Merrimam	Report number of referrals to Illinois EPA's Criminal Enforcement Decision Group and to prosecutorial authorities (hazardous waste cases.)	
		Mike Davison	Illinois EPA will review and ensure the accuracy of the adoption of RCRA rules promulgated by USEPA in a timely manner.	
		Todd Marvel	Illinois EPA will submit Authorization Revision Application (ARA) 9, which will include all applicable RCRA rules promulgated to date.	
Strategic Goal 2: Protecting America's Waters				
Strategic Objective 2.1: Protect Human Health				
Work Plan Outputs/Measures/Outcomes – Carbon Sequestration				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Activities**	**Performance Partnership Grant Status/Progress**
Joint Priority	Volume of CO2 sequestered through injection as defined by the UIC Final Rule.		Illinois EPA will continue to participate in the Midwest Geological Sequestration Consortium (MGSC).	

Joint Priority	Number of permit decision during the reporting period that result in CO2 sequestered through injection as defined by the UIC Final Rule.		The Illinois EPA will continue to keep the USEPA informed of CO2 projects they will be responsible for permitting.	

Attachment C: Bureau of Water

Illinois Environmental Protection Agency 2012/2013 Performance Partnership Agreement/Performance Partnership Grant

Strategic Goal 2: Protecting America's Waters				
Strategic Objective 2.1.1: Water Safe to Drink				
Work Plan Outputs/Measures/Outcomes – Water Safe to Drink				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Accomplishments**	**Performance Partnership Grant Status/Progress**
SDW-211	Percent of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.	Dave McMillan/Mike Crumly	In FY2012, 90% of the population served by community water systems will receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.	
SDW-SP1.N11	Percent of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection.	Dave McMillan/Mike Crumly	In FY2012, 90% of the community water systems will meet all applicable health-based standards through approaches that include effective treatment and source water protection.	
SDW-SP4a	Percent of community water systems where risk to public health is minimized through source water protection.	Dave McMillan/Rick Cobb	In FY2012, minimize risk to public health through source water protection for 50% of CWSs (i.e. "minimized risk" achieved by substantial implementation, as determined by the state, of actions in a source water protection strategy.)	
SDW-SP4b	Percent of the population served by community water systems where risk to public health is minimized through source water protection.	Dave McMillan/Rick Cobb	By FY2012, minimize risk to public health through source water protection for 42% of the population served by CWSs (i.e. "minimized risk" achieved by substantial implementation, as determined by the state, of actions in a source water protection strategy.)	

SDW-01a	Percent of community water systems (CWS) that have undergone a sanitary survey within the past 3 years (5 years for outstanding performers) as required under the Interim Enhanced and Long Term I Surface Water Treatment Rules.	Dave McMillan/Rick Cobb	In FY2012, 95% of CWSs will have undergone a sanitary survey within the past 3 years (5 years for outstanding performers) as required under the Interim Enhanced and Long-Term 1 Surface Water Treatment Rules.	
SDW-SP2	By FY2012, CWSs will provide drinking water that meets all applicable health-based drinking water standards during 95 percent of "person months" (i.e., all persons served by CWSs times 12 months).	U.S. EPA, Region 5	This measure is generated by U.S. EPA through a database query and calculation with a target of 95% person months of the affect population receiving compliant water.	
SDW-04	Fund utilization rate [cumulative dollar amount of loan agreements divided by cumulative funds available for projects] for the Drinking Water State Revolving Fund (DWSRF).	Geoff Andres		
SDW-05	Number of Drinking Water State Revolving Fund (DWSRF) projects that have initiated operations (cumulative)	Geoff Andres	Illinois EPA will continue to manage the Public Water Supply loan programs, providing low interest financing for drinking water facilities.	
		Geoff Andres	By FY2013, Illinois EPA will amend SRF program rules to incorporate priority and eligibility for the "green project reserve" and green infrastructure projects in the SRF Clean Water and Drinking Water programs.	
		Geoff Andres	Illinois EPA will continue the current practice of "banking" set-aside allotments under the Drinking Water SRF and will evaluate priorities for the utilization of those funds.	

		Geoff Andres	In FY2012, Illinois EPA will transition to a new Loan and Grant Tracking System (LGTS); an initiative designed to improving reporting capabilities while increasing program efficiency and security.	
Strategic Goal 2: Protecting America's Waters				
Strategic Objective 2.1.3 Water Safe for Swimming				
Work Plan Outputs/Measures/Outcomes – Water Safe for Swimming				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Accomplishments**	**Performance Partnership Grant Status/Progress**
SS-1		Amy Dragovich	Combined Sewer Overflow (CSO) Permits – Implement the wet weather initiatives consistent with, and within the context of, the backlog strategy. CSO permits currently expired or expiring are high priority permits and Illinois EPA will provide draft major permits to Region 5 for review and will issue the permits as soon as practicable.	
		Amy Dragovich	Illinois EPA and EPA will develop a permitting strategy for excess flow facilities to identify permit requirements for such dischargers, by March 31, 2012. Illinois EPA will implement the strategy in permit actions for these facilities beginning in April 2012.	
		Amy Dragovich	Illinois EPA shall approve the City of Chicago CSO Operational and Maintenance Plans incorporating Region 5's November 12, 2009 comments by January 15, 2012. IEPA will provide a pre-public notice permit for the City of Chicago CSO permit upon issuance of the MWRDGC permits and issue a final permit within 90 days of issuing MWRD permits for Stickney, Northside, and Calumet WRPs, unless a public hearing is necessary.	
SS-1 + Clean Water Action Plan		Amy Dragovich	Illinois EPA will modify or review CSO permits with a schedule incorporated in to an appropriate enforceable mechanism including a permit or enforcement order with specific dates and milestones, including a completion date, which requires: Implementation of an approved Long Term Control Plan (LTCP); or Implementation of any other acceptable CSO control measures consistent with the 1994 CSO Control Policy.	

SS-1 + Clean Water Action Plan		Amy Dragovich	Once the schedule is finalized Illinois EPA will send an update to Region 5 by the end of every month. Illinois EPA will update USEPA CSO LTCP status spreadsheet, internal monthly reporting, and to track progress toward meeting goals under the CSO Control Plan Policy.	
Strategic Goal 2: Protecting America's Waters				
Strategic Objective 2.2.1: Improve Water Quality on a Watershed Basis				
Work Plan Outputs/Measures/Outcomes – Improve Water Quality on a Watershed Basis				
Grant Code	**Template Measures**	**Contacts**	**Performance Partnership Agreement Planned Accomplishments**	**Performance Partnership Grant Status/Progress**
	Number of Clean Water State Revolving Fund (CWSRF) projects that have initiated operations (cumulative)	Geoff Andres	Illinois EPA will continue to manage the Water Pollution Control loan programs, providing low interest financing for wastewater facilities and the "green project reserve".	
		Geoff Andres	By FY 2013, Illinois EPA will amend SRF program rules to incorporate priority and eligibility for the "green project reserve" and green infrastructure projects in the SRF Clean Water and Drinking Water programs.	
		Geoff Andres	In FY 2012, Illinois EPA will transition to a new Loan and Grant Tracking System (LGTS); an initiative designed to improving reporting capabilities while increasing program efficiency and security.	
SP-10	Measure W	Amy Walkenbach	Measure W tracks watersheds where water quality conditions have improved by using a watershed approach. One of the primary purposes of this measure is to model and demonstrate the effectiveness of the watershed approach. Illinois EPA has submitted Jelkes Creek and Dutchmans Creek Watersheds as new Measure W watersheds. Governor Bond and Pittsfield watersheds have already been approved.	
	Number of waterbodies identified in 2002 as not attaining water quality standards where standards are now fully attained (cumulative.)	Amy Walkenbach	USEPA will pull waters newly meeting Full Use Support biannually from the Assessment Database.	

WQ01a	Number of numeric water quality standards for total nitrogen and for total phosphorus adopted by States & Territories and approved by USEPA, or promulgated by EPA, for all waters within the State or Territory for each of the following waterbody types: lakes/reservoirs, rivers/streams, and estuaries (cumulative, out of a universe of 280.)	Bob Mosher	The Illinois EPA will continue to work with Region 5 to adopt nutrient water quality standards.	
WQ01b	Number of numeric water quality standards for total nitrogen and total phosphorus at least proposed by States and Territories, or by EPA proposed rulemaking for all waters within the State or Territory for each of the following water body types: lakes/reservoirs, rivers/streams, and estuaries (cumulative, out of a universe of 280).	Bob Mosher	Illinois EPA will keep USEPA apprised of developments in rivers/streams water quality standards for phosphorus including projected adoption date when this information becomes available.	

WQ01c	Number of States & Territories supplying a full set of performance milestone information to USEPA concerning development proposal, and adoption of numeric water quality standards for total nitrogen and total phosphorus for each waterbody type within the State or Territory (annual) (The universe for this measure is 56.)	Bob Mosher	Illinois EPA will continue to provide performance milestone information concerning the development of phosphorus and nitrogen water quality standards in an updated nutrient criteria development plan provided to USEPA no later than August 31, each year.	
		Bob Mosher	Illinois EPA will continue participation in the Regional effort to develop nutrient criteria guidance through its membership in the Regional Technical Assistance Group.	
		Bob Mosher	Coordinator will work with the Science Committee of the Nutrient Standards Workgroup.	
		Bob Mosher	Will also help in the analysis of data currently being collected by Illinois EPA's Monitoring Unit and organize meetings of the Science Committee.	
WQ03a	Number and national percent of States & Territories that within the preceding 3 year period, submitted now or revised water quality criteria acceptable to USEPA that reflect new scientific information from USEPA or other resources not considered in the previous standards.	Bob Mosher	Consistent with the requirements of 40 CFR 131 20 (c) where Illinois EPA proposes new or revised criteria that differ from USEPA's recommended criteria or for parameters where there are no USEPA recommended criteria, Illinois EPA will provide technical documentation for the decision it makes with respect to selecting data for use in calculating the criteria. Where USEPA national criteria exist, Illinois EPA will announce in its annual program plan, beginning in FY13, what standards, such as ammonia, human health narrative, bacteria, it will seek to update through the Illinois Pollution Control Board.	
	Human Health Criteria	Bob Mosher	Illinois EPA will propose updated human health criteria within the triennial review period beginning in FY13.	

	Bacteria Criteria, Recreational Uses and Disinfection Exemptions	Bob Mosher	Illinois EPA will propose an update for bacteria standards to the Illinois Pollution Control Board within three years of final adoption by USEPA.	
	Great Lakes Initiative Clearinghouse	Bob Mosher	If any criteria applicable to the Great Lakes are updated, IEPA will send USEPA completed criteria templates and fact sheets for upload to the GLI Clearinghouse.	
	Endangered Species Act Consultation	Bob Mosher	Illinois EPA will assist USEPA in coordinating with U.S. Fish and Wildlife Service on draft and final new and revised water quality standards.	
		Roy Smogor Bob Mosher Scott Twait	Lower Des Plaines River & Chicago Area Waterway UAA Illinois EPA will continue to support completion of the rulemaking and will actively work with USEPA to address concerns raised on proposed rules.	
WQ05	Number of States & Territories that have adopted and are implementing their monitoring strategies in keeping with established schedules. Status of Illinois' monitoring strategies and other initiatives	Gregg Good	Ambient Water Quality Monitoring Network – Illinois EPA will conduct monitoring activity at 146 ambient stream stations nine times annually (approximately every six weeks).	
		Gregg Good	Intensive Basin Surveys – Illinois EPA will conduct Intensive Basin Survey monitoring activities at approximately 125-140 sites annually. Major river basins planned to be monitored in FY12 include the Pecatonica, Fox, LaMoine, Kaskaskia, and Little Wabash. River basins planned to be monitored in by FY13 include the Rock, Des Plaines, Sangamon, and Big Muddy.	
		Gregg Good	Facility-Related Stream Surveys – Report the number of lakes/stations surveys conducted. Illinois EPA will conduct 5-10 facility-related stream surveys annually.	
		Gregg Good	Ambient Lake Monitoring Program – Report the number of lakes/stations sampled. Illinois EPA will conduct monitoring activity at approximately 35-45 inland lakes annually.	

		Gregg Good	Volunteer Lake Monitoring Program (VLMP) – Report the number of lakes monitored by volunteers along with a brief status on key accomplishments of the program. Illinois EPA will conduct VLMP Tier 1 monitoring at approximately 150-160 inland lakes and Tier 2 monitoring at approximately 40-50 inland lakes annually.	
		Gregg Good	Fish Contaminant Monitoring Program – Report the number of samples processed Illinois EPA and the number of stations sampled by IDNR. Illinois EPA will work cooperatively with the IDNR, IDPH, and IDOA to collect fish from approximately 75-85 waterbody stations, analyzing a total of approximately 375-425 fish contaminant samples annually.	
		Gregg Good	Special Surveys – Report the number of special surveys conducted. Special surveys are periodically conducted on an as-needed basis to meet lakes, NPS/watershed, permitting, or other program needs. The number and brief summaries of special surveys conducted by the Agency will reported on an annual basis.	
		Gregg Good	Lake Michigan Monitoring Program – Illinois EPA will conduct lake Michigan near shore survey monitoring at 25 probabilistically-based sites on an annual basis. If time and resources allow, 2-3 Lake Michigan harbors, and 3-4 public water supply intake locations, will be monitored annually.	
		Gregg Good	Wetland Assessments - Wetlands assessment commitment: Upon completion of the Wetland Index of Biotic Integrity (w-IBI) developed by the Illinois Natural History Survey (INHS), the Agency agrees to work with INHS and Region 5 to see how best to incorporate the w-IBI into a methodology to assess attainment of wetland use(s) in the 2014 Section 305(b) report.	
		Gregg Good	National Aquatic Resource Surveys – Illinois EPA will participate in the National Lakes Assessment survey with monitoring to take place in Summer 2012. Illinois EPA will make a commitment by approximately September 2012 whether it will participate in the National Rivers and Streams Assessment with monitoring to take place in Summer 2013.	

		Gregg Good	STORET – Illinois EPA will continue to submit regular updates of water quality information to STORET via the AWQMS database.	
		Gregg Good	Water Quality Monitoring Strategy Development 2013-2018 – In developing the 2013-2018 Illinois Water Monitoring Strategy, consideration will be given to comments provided by USEPA on Illinois EPA's previous strategy; new state and federal priorities; availability of Illinois EPA staff and financial resources; technical capabilities; etc. Region 5 and Illinois EPA will work together to develop a draft of the strategy which will be submitted to USEPA for review and comment by April 30, 2013. USEPA's review comments will be provided back to IEPA by June 30, 2013. The final strategy will be developed by September 30, 2013.	
		Gregg Good Roy Smogor	By September 30, 2012, Illinois EPA will make an assessment of the resources necessary to run a level 4 biological assessment program. By June 30, 2013, Illinois EPA will inform Region 5 whether it will fully commit to development of a TALU-based monitoring, assessment, and implementation program in Illinois. If the Illinois EPA commits to doing so, a plan of action with milestones will be drafted and forwarded to Region 5 by September 30, 2013.	
WQ-07	Number of States and Territories that provide electronic information using the Assessment Database version 2 or later 9 or compatible system) and geo-reference the information to facilitate the integrated reporting of assessment data.	Gregg Good Amy Walkenbach	While acknowledging that the statutory date for submittal of the 305(b) report is April 1, Illinois EPA will provide the draft report, including a populated Assessment Database and geo-reference data, for review and comment by Region 5 and the public by April 1, 2012. The final report will be submitted for USEPA approval by June 30, 2012. For the 2014 cycle, Illinois EPA will implement procedural and scheduling changes in 2013 that will result in a submittal of the 2014 305(b) report to Region for approval by April 1, 2014	
	303 (d) List Development	Amy Walkenbach	303(d) submittal - The draft 303(d) list will be provided to Region 5 and the public for review and comment by April 1, 2012. The final Draft list will be submitted to Region 5 for approval by June 30, 2012.	

WQ-08b	Number and national percent, of approved TMDLs, that are established by States and approved by USEPA [state TMDLs] on a schedule consistent with national policy.	Amy Walkenbach	Continue watershed based TMDLs according to the request for proposal (RFP).	
		Amy Walkenbach	Deliver a schedule to Region 5 by September 15 of each year, of final TMDLs to be submitted for approval by Region 5 in each subsequent FFY.	
		Amy Walkenbach	Illinois EPA will address 135 segment impairments through completed TMDLs, new accountability projects, SP-11 delistings and reassigned Cat 5 impairments to Cat 4b and Cat 4c. Any other delistings resulting in impairments being removed from Category 5 will be taken from the universe of TMDLs needed and the proportional annual reduction equivalent to 1/13 of a TMDL, applied to the annual segment-impairment commitment of 125. It is the intent of Illinois EPA to address 75 segment-pollutant combinations through TMDL development.	
		Amy Walkenbach	Provide draft TMDLs to Region 5, 30-60 days prior to public notice, or alternate timeframe as agreed upon, for review and comment.	
		Amy Walkenbach	Illinois EPA will work with Region 5 to make TMDL process in Illinois more efficient and to ensure that Illinois EPA remains on pace in TMDL development.	

WQ-14a and WQ-14b	WQ-14a Number and National % of Significant Industrial Users (SIUs) that are discharging to POTWs with Pretreatment programs that have control mechanisms in place that implement applicable pretreatment standards and requirements. WQ-14b Number categorical industrial users that discharger to POTWs with non-approved programs.	Roger Callaway	Illinois EPA will enter required data elements into ICIS. USEPA will provide all necessary technical assistance to Illinois EPA to ensure that required data elements are entered into ICIS. NPDES for annual reports submitted by POTW with approved pretreatment programs. By October 15, 2011, Illinois EPA will provide Region 5 a list of potential categorical and significant industrial users. Region 5 will send letters to industries subject to categorical standards informing them of their responsibilities under the pretreatment rules. Beginning October 1, 2011, Illinois EPA, shall, as a permit condition, require all major municipal permitees without approved programs to identify and report to the Region the number of categorical and significant industrial users they serve. Also, by December 15, 2011, Illinois EPA and Region 5 would work together to finalize a letter that would be sent to minor municipal permittees requiring them to identify and report to the Region 5 the number of categorical and significant industrial users they serve.	
	Percent of major dischargers in Significant Noncompliance (SNC) at any time during the fiscal year.	Roger Callaway	Maintain major quarterly compliance rate at >=%95. Annual rate will meet or exceed the national goal.	
		Roger Callaway	Prepare, and timely report to U.S. EPA, quarterly Non-Compliance Reports (QNCRs) for major facilities.	
		Roger Callaway	Compile and submit calendar year annual non-compliance reports for NPDES non-majors.	
Clean Water Action Plan	Resolve State Review Framework items	Bruce Yurdin	By October 15, 2011, U.S.EPA and Illinois EPA will meet to discuss and by December 15, 2011, Illinois EPA will develop a plan for the completion of inspection reports which includes appropriate guidelines, procedures and oversight. The Illinois EPA will follow the national Compliance Monitoring Strategy (CMS) for inspections and will meet the commitments as resources allow.	

	EPA/State permitting and enforcement joint work plan	Sanjay Sofat	U.S. EPA and Illinois EPA, working together, will conduct an annual Clean Water Act planning process. The purpose is to identify and discuss national, regional and state priorities in the context of available resources at both the state and federal levels. The result will be development of a Joint Work Plan consistent with CWA Action Plan guidance to be concluded no later than September 30th. The resulting collaborative annual work plan may include various mechanisms to get work done, such as work sharing, innovative approaches to monitoring facilities or addressing violations. Illinois EPA and EPA will implement the workplans consistent with the timeframes identified in the plans.	
Clean Water Acton Plan	Address Minor "Serious" Violators	Roger Callaway	Review non-compliance reports in response to significant violations. Select appropriate Enforcement Response	
		Roger Callaway Bruce Yurdin	Take appropriate compliance and enforcement actions in accordance with the Illinois EPA's Section 31 of the Illinois Environmental Protection Act for violations of NPDES, Stormwater, SSO/CSO, CAFO & other violations of environmental regulations.	
		Roger Callaway	Review and update "Watch Lists" on a quarterly basis	
		Roger Callaway	Single event violation (SEVs) entry will be performed along with the entry of major inspections.	
		Roger Callaway	CSO notifications from municipalities will be entered into ICIS. An approach to tracking SSO notifications will be identified as part of the CSOs strategy that Illinois EPA proposed.	
		Roger Callaway	Illinois EPA will expand the use of electronic reporting to include additional facilities as well as additional types of reports received from wastewater facilities.	
		Bruce Yurdin	Illinois EPA will provide timely feedback on the nature of and results of response to, complaints forwarded to Illinois EPA by USEPA.	
	Permit Activities	Al Keller	Illinois will submit the lists for majors and minors that were reissued, terminated or expired in the previous fiscal year by October 15 of end of FY12/13.	

WQ-12a		Al Keller	The goal for NPDES permit renewal is 90% of major permits will be current and 90% of minor permits will be current. Because of issues raised on nutrient limits based on the Illinois narrative standard and 316(a) thermal demonstrations, Illinois EPA commits that 85% of majors will be current and 80% of minors will be current. Illinois EPA and Region 5 commit to identifying an approach on nutrient limits based on the narrative standard by October 1, 2011 (implementation upon agreement on an approach); EPA meeting its goal of reviewing selected proposed permits within 30 days; and to resolving concerns on three thermal demonstrations by March 1, 2012. Agreement on an approach to implement nutrients limits, resolution of thermal permit issues, and timely reviews of permits should enhance Illinois EPA's ability to meet the goal for NPDES permit renewal of "90% of major permits will be current and 90% of minor permits will be current".	
WQ-13a		Al Keller	Stormwater – Illinois EPA has reissued the construction site activity, industrial site activity and MS4 stormwater general permits. Illinois EPA will monitor any new federal regulations concerning these permits (I.e., effluent guidelines for construction site activities, new MS4 requirements, flow rate related restrictions) and modify the permits as necessary.	
WQ-19a	Number of high priority state NPDES permits that are issued in the fiscal year.	Darin LeCrone	Develop new priority permit lists for FFY2012 and 2013 and submit it to Region 5 by August 31 of each year. Issue 100% of the identified priority permits by the end of each FFY.	
		Al Keller	Lagoon General Permits – Illinois EPA will submit the 3 general permits for municipal and semi-public lagoon facilities to Region 5 for approval by October 1, 2011. After approval by Region 5, Illinois EPA will public notice the permits for subsequent issuance as soon as possible.	
		Al Keller	Permit Backlog List – Illinois EPA will submit a list of major or general permits, expired and expiring, for reissuance by August 15 of each FY. Illinois EPA may identify specific permits suggested for review. Region 5 will annually identify	

			permits, which Region 5 would review prior to public notice. The list of permits will include one or more of the issues of wet weather, TMDLs, critical industrial sectors, CSO linked to water quality impairment, toxicity, or expired more than 2 years.	
		Al Keller Patrick Kuefler	For all permits selected for review, Region 5 will review and provide Illinois EPA comments within 30 days of receiving a complete review package. Illinois EPA will address the comments and provide Region 5 a revised draft permit upon initiation of public notice.	
		Al Keller	Illinois EPA will submit a copy of all draft major permits that are a new discharge or a modification of a facility which includes an expansion of a facility.	
		Al Keller	Finalize and propose Sludge Regulations adoption during FFY13.	
		Al Keller	Develop a nutrient permitting strategy based on narrative standards by October 1, 2011. Implement the strategy in permit issuances and reissuances beginning in October 2011.	
			Illinois EPA will continue to work with Region 5 to conduct a Reasonable Potential Analysis for nutrients for the MWRDGC facilities	
			Within 90 days of Region 5 completing a Reasonable Potential Analysis for nutrients for the MWRDGC facilities, Illinois EPA will propose draft permits for the Stickney, Northside and Calumet WRPs consistent with the analysis.	
Clean Water Action Plan - Permitting for Environmental Results	Extend scope of current permits to ensure WET testing requirements	Bob Mosher	Determine protocol for deciding when more monitoring or limits is necessary for chronic WET by March 15, 2012.	
	Confined Animal Feeding Operation (CAFO) Work Plan	Dan Heacock	<u>CAFO rulemaking</u> Illinois EPA will submit the proposed amended CAFO rule and supporting regulatory package to the Illinois Pollution Control Board. .	
		Bruce Yurdin	<u>CAFO Inventory</u> By December 1, 2011, Illinois EPA will provide an inventory of large CAFOs to EPA. By December 1, 2012, Illinois EPA will provide a final inventory to EPA as a	

			basis for the final Work Load Assessment. The inventory at a minimum should identify facility name and location, owner/operator contact information, types and number of animals. By September 30, 2013, Illinois EPA will provide an updated CAFO inventory that contains the information identified in its plan to create and maintain a comprehensive inventory of CAFOs.	
		Bruce Yurdin	CAFO Inventory Update By December 1, 2012, Illinois EPA will provide an update to the CAFO inventory, adding any newly identified CAFOs and/or removing facilities determined not to be large CAFOs. Illinois EPA and EPA will discuss recommended changes to the content of the inventory prior to the December 2012 update.	
		Bruce Yurdin	CAFO Work load Assessment Six months after the final inventory has been completed, Illinois EPA will provide a final workload assessment based on the CAFO inventory developed per the Work Plan and that incorporates responses to EPA comments on Illinois' August 2011 preliminary workload assessment.	
		Dan Heacock	CAFO Training Newly hired Illinois EPA CAFO permit writers will complete an USEPA approved NPDES training program for permit writers within 6 months of start date. Existing EPA CAFO permit writers will complete USEPA approved nutrient management training, subject to availability of USEPA provided training. USEPA will train newly hired permit writers within 6 months of start date.	
		Dan Heacock	CAFO permit reviews 100%of permit applications received by March 31, 2012 will be acted on in accordance with Illinois EPA's SOP for CAFO applications.	
		Dan Heacock	Incomplete CAFO Permit applications - If Illinois EPA refers CAFOs to USEPA for incomplete applications, USEPA will issue information collection orders within 60 days of a referral from Illinois EPA.	
			CAFO Permit Application Tracking Illinois EPA will maintain a CAFO permit tracking system. By the 27th day of every even numbered month Illinois EPA will submit an updated version	

			of the CAFO Tracker indicating current progress made on permit application reviews and final permit actions.	
		Dan Heacock	CAFO rulemaking Within 45 days after amendatory rulemaking becomes effective, will submit the final amendments to U. S. EPA for action under 40 CFR 123.62	
		Dan Heacock	Inform CAFOs of amended CAFO rule and permit requirements Within 30 days after publication of the amendments, Illinois EPA will inform the owners of each Large CAFO in the state's inventory, in writing, about the need for an NPDES permit for discharges from the CAFO and the consequences for failing to obtain the permit. Illinois EPA will provide a draft of the letter to U. S. EPA for review and approval.	
			Revise permit application Within 120 days after the effective date of the amendatory rulemaking, Illinois EPA will revise its permit application forms, as appropriate, based on the amendments and federal regulations.	
			Propose general permit revisions Within 120 days after the effective date of the amendatory rulemaking, Illinois EPA will formally propose for public review and comment draft modifications to the general permit ILA01, as appropriate, based on the amendments and federal regulations.	
		Bruce Yurdin	Illinois EPA will enter and maintain inventory of large and medium CAFOs in the Integrated Compliance Information System (ICIS) to the extent that ICIS protocols allow.	
		Bruce Yurdin	Perform an additional 25 NPDES evaluations by 6/1/2012 and provide U.S. EPA a copy of the final reports.	
		Bruce Yurdin	By September 1 of each year, Illinois EPA will develop an annual site-specific CAFO inspection plan which ensures NPDES inspection at a minimum of 20% of all permitted CAFOs, consistent with U.S. EPA's National NPDES Compliance Monitoring Strategy.	
		Bruce Yurdin	Newly hired CAFO inspectors will complete the CAFO NPDES training curriculum Within six months of their start date, and prior to conducting inspections independently	

		Bruce Yurdin	All staff working on AFO/CAFO issues will be trained on the revised ERG.	
		Bruce Yurdin	Issue VNs for all significant noncompliance detected at CAFOs, within 180 days of Illinois EPA becoming aware of the alleged violation, pursuant to Section 31(a) of the Illinois Environmental Protection Act (Act).	
		Bruce Yurdin	If Illinois EPA is unable to negotiate an acceptable CCA within 120 days of issuing the VN, Illinois EPA will refer the matter to the Illinois Attorney General's office, States Attorney's office or U.S. EPA.	
		Bruce Yurdin	For conditions that constitute an imminent or substantial endangerment to human health, the environment or property, immediately refer the matter to the Illinois Attorney General's office pursuant to Section 43 of the Act.	
		Bruce Yurdin	In cases where the facility does not respond to the VN or proposes a remedy that is less effective than the remedy proposed by Illinois EPA, Illinois EPA will immediately complete the necessary actions under Section 31 that will allow Illinois EPA to formally refer the matter to the Illinois Attorney General's office or the State's Attorney of the county in which the alleged violation occurred. Simultaneously, Illinois EPA will refer the case to its existing Enforcement Decision Group for pre-referral consideration of the case.	
		Bruce Yurdin	Illinois EPA program and legal managers, Illinois Attorney General's office managers, and U.S. EPA program and legal managers will conduct a quarterly docket review of all referred CAFO matters and all open federal enforcement cases.	
		Bruce Yurdin	Starting October 2011, Illinois EPA will provide a bi-monthly report to the U.S. EPA Water Enforcement Branch. The report will reflect the activities completed during the preceding two month and include element specified in the Illinois CAFO work plan.	

	Supplemental Section 106 Funding workplan	Bruce Yurdin	Illinois EPA did hire two (2) new FTEs in 2011 to complete this Proposal. The new FTEs will be trained in the responsibilities of an Illinois EPA inspector and in the appropriate federal and state laws and regulations governing CAFOs, equipped with the appropriate data collection and recordkeeping tools, and assigned the duty of specific CAFO inspections within a designated region of the state, as described above. The FTEs will conduct CAFO inspections and identify water quality problems, including the location, type and content of all wastewater discharges. It is anticipated that the 80 annual inspections will add to the approximately 220 livestock inspection s that are annually conducted. High priority for inspections will be given to unpermitted CAFOs and to emergencies at CAFOs, including those that result in unauthorized discharges and those that endanger public health and the environment.	
	Inspections	Bruce Yurdin	Inspection strategy – An inspection plan will be sent to Region 5 by September 30 and will include projections for each year and consistency with EPA's National Compliance Monitoring Strategy (CMS). Region 5 will comment on the Illinois EPA plan 30 days after submittal.	
		Bruce Yurdin	Frequency of inspecting majors – Majors with good compliance history will be reduced. A specific list and schedule of majors to be inspected will be sent to Region 5 by September 30th of each year.	
		Bruce Yurdin	Reconnaissance inspections – Recon inspections will continue, as resources allow.	
		Bruce Yurdin	Stormwater inspections in conjunction with SWCDs - Agreements are in place with the SWCDs. These agreements govern to operations of this inspection and technical assistance program.	
		Bob Mosher	Illinois EPA will continue to implement the elements of the nutrient plan.	

	Work towards science-based standards (nutrients, bacteria, boron, fluoride, manganese) and more accurate use of classifications.	Bob Mosher	Continue to develop water quality standards for nutrients specific to the needs and conditions in Illinois in accordance with its approved plan. Make annual plan updates for mutual agency agreement, as needed each summer if there has been slippage to major milestones in the plan.	
Joint Priority	Promote the use of anaerobic digesters in Illinois	Marcia Willhite	Anaerobic digesters are used to break down organic wastes and convert them into heat and methane gas, which can then be used to produce electricity. Digesters can be used to manage agricultural wastes to address problems with waste lagoons, impaired water quality, particulate matter, odors, pests and carbon dioxide, while producing renewable energy, and if placed on a brownfield or other contaminated property, can contribute to reuse and redevelopment of such properties. Illinois EPA and EPA agree to work together to promote the increased use of anaerobic digesters through data sharing, outreach to stakeholders, and prioritization of permits and other regulatory approvals for digester projects.	

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DRINKING WATER ANNUAL RESOURCE DEPLOYMENT PLAN (ARDP)
Fiscal Year 2012-2013
(October 1, 2011 to September 30, 2013)

Not all State Public Water System Supervision (PWSS) programs have access to enough resources to implement all of the provisions of existing drinking water regulations, and other primacy program requirements. Resource shortfalls have occurred as the regulations, mandated by the Safe Drinking Water Act (SDWA), come into effect.

Therefore, we need to plan for circumstances where resources are inadequate to implement the entire drinking water protection program. Since the purpose of the SDWA is to protect public health, federal and state agencies have an obligation to ensure that limited resources are deployed in a way that ensures maximum health protection benefit, and that we collectively keep track of what is and is not being done as we strive for full implementation.

To that end, Region 5, in cooperation with our State program partners, has developed a program plan that includes all of the major activities required by primacy regulations and primary drinking water regulations, to guide annual workplan and/or EnPPA discussions leading to annual grant commitments and work-sharing agreements. The plan documents what will and will not be done during the year. The agreement reflects state capacity based on available resources, as well as local health protection priorities. For instance, in a state where radionuclides are prevalent, the state may need to devote proportionately more resources to implementing that regulation than another state, where arsenic is more prevalent.

Core activities, such as explaining regulation requirements to public water supplies, and tracking and reporting violations, are fundamental to the integrity of the public health protection program and are not amenable to priority setting. U.S. EPA will participate and support state implementation efforts where appropriate and possible. U.S. EPA commitments in support of State programs are listed in the table. Priority activities are flagged throughout the ARDP (denoted with a triangle ►), which will be tracked more than once per year.

The State and U.S. EPA will both report annually on their accomplishments so we can jointly appraise our effectiveness, and our progress toward implementing the complete program. Where resource shortfalls continue to exist, the State and EPA will simultaneously continue efforts to obtain additional resources in order to fill the resource gap. State and EPA efforts to obtain additional resources necessary to fill the gaps associated with temporarily disinvested activities will be documented in the end-of-year evaluation reports.

Using this resource deployment plan as a framework for annual planning and progress assessment should meet several objectives:

(1) Promote clear understanding of both State and U.S. EPA commitments.
(2) Minimize ad hoc requests for program reporting.
(3) Promote judicious use of limited resources to achieve the best possible public health protection.

(4) Support efforts to increase resources by clearly identifying resource and program constraints.
(5) Promote collaborative inter-agency program planning and implementation.

PUBLIC WATER SYSTEM SUPERVISION PROGRAM

CORE STATE ACTIVITIES

⇒ Provide an adequate laboratory certification program for all regulated contaminants. This does not mean that States must expand their labs to perform all the analyses. At a minimum, a State should have an adequate certification program to certify commercial labs within the State.

⇒ Maintain a data management system that tracks requirements for all rules. This means to have the appropriate combination of hardware, software and personnel to accurately and within a reasonable timeframe identify the inventories (including routine updates of system information), maintain water quality monitoring information, and track compliance with all M/R, MCL, MRDL, TT, PN and public information requirements.

⇒ Keep adequate records of pertinent State decisions.

⇒ Adopt all rules in a timely manner (within two year extension period).

⇒ Notify all systems of regulatory requirements and respond to questions.

⇒ Determine violations for all rules and report to U.S. EPA.[1]

⇒ Maintain an adequate enforcement and compliance assistance program (adequacy determined by a decrease in violation frequency).

⇒ Maintain a baseline core of individuals with the technical expertise needed, to perform sanitary surveys, plan and spec reviews, and respond to emergencies.

⇒ To improve our ability to understand, measure, assess, and communicate progress, conduct a joint evaluation of program performance with EPA.

⇒ Develop and implement a plan to provide adequate funding to carry out all functions of the PWSS program.

[1] States must report actions and sample data quarterly and inventory data at least annually in accordance with 40 CFR 140.15. These data must be reported in XML format and utilize the Central Data Exchange (CDX) as the media for data transfer to U.S. EPA. The reporting schedule for States to the national database, SDWIS/FED-ODS, is as follows: FFYQ1 – February 15, FFYQ2 – May 15, FFYQ3 – August 15, and FFYQ4 – November 15. If the data is not reported within 60 days, the Region will raise the issue to the State Director's attention.

CORE R5 ACTIVITIES

Respond to questions from our state programs about regulations. Train state staff about treatment regulations by offering in-state and/or regional training opportunities.

Maintain a forum for U.S. EPA-State communications through the monthly U.S. EPA-State conference calls, holding an annual meeting, and conducting additional meetings/calls as needed.

- Track primacy submittal/review for all rules and provide comments on draft rules, as requested.
- Determine whether primacy applications are complete and determine tracking required for new rules by state.

Assist states in acquiring resources to carry out all functions of the PWSS program.

Monitor specific regulations related to State follow-up to the findings of the last data and enforcement verification reports, as indicated in the "R5 Activities" column.

Acronyms/Abbreviations	
ACS – Annual Commitment System	MRDL – Maximum Residual Disinfectant Level
ARDP – Annual Resource Deployment Plan	NCWS – Non-Community Water System
As – Arsenic	NPDWR – National Primary Drinking Water Regulation
CCR – Consumer Confidence Report	NTNCWS – Non-Transient Non-Community Water System
CFR – Code of Federal Regulations	OCCT – Optimal Corrosion Control Treatment
CPE – Comprehensive Performance Evaluation	pCi/L – picoCurie per liter
CTA – Comprehensive Technical Assistance	PN – Public Notification
CWA – Clean Water Act	ppb – part per billion
CWS – Community Water System	PWS – Public Water System
DBP – Disinfection By-Products	PWSID – Public Water System Identification
D/DBPR – Disinfectants and Disinfection By-Products Rule	PWSS – Public Water System Supervision
DWA – Drinking Water Academy	Rads – Radionuclides
DWSRF – Drinking Water State Revolving Fund	RTC – Returned to Compliance
eDV – Electronic Data Verification (Tool)	SDWA – Safe Drinking Water Act
EnPPA – Environmental Performance Partnership Agreement	SDWIS/FED – Safe Drinking Water Information System/Federal
ERG – Expense Reimbursement Grant	SDWIS/State – Safe Drinking Water Information
ERP – Enforcement Response Policy	

ETT – ERP Enforcement Targeting Tool	System/State
FBRR – Filter Backwash Recycling Rule	SNCs – Significant Non-Compliers
GWR – Ground Water Rule	SOC – Synthetic Organic Contaminant
GWS – Ground Water System	SOX – "SOX" is a code in SDWIS/FED that indicates the state entered a return to compliance for a violation
GUDI – Ground Water under the Direct Influence of Surface Water	SPM – U.S. EPA Region 5 Ground Water and Drinking Water Branch State Program Manager
HAA5 – Haloacetic Acids	Stage 2 – The Stage 2 Disinfectants and Disinfection By-Products Rule
HSA – Hydrogeologic Sensitivity Assessment	SWAP – Source Water Assessment Program
IDSE – Individual Distribution System Evaluation	SWP – Source Water Protection
IESWTR – Interim Enhanced Surface Water Treatment Rule	SWTR – Surface Water Treatment Rule
IOC – Inorganic Contaminant	TCR – Total Coliform Rule
IUP – Intended Use Plan	TMDL – Total Maximum Daily Load
LCR – Lead and Copper Rule	TT – Treatment Technique
LT1ESWTR – Long-Term 1 Enhanced Surface Water Treatment Rule	TTHM – Total Trihalomethanes
LT2ESWTR – Long-Term 2 Enhanced Surface Water Treatment Rule	UCMR – Unregulated Contaminant Monitoring Rule
MCL – Maximum Contaminant Level	V&E – Variances and Exemptions
M/R – Monitoring/Reporting	VOC – Volatile Organic Contaminant
	WBDO – Waterborne Disease Outbreak
	WQP – Water Quality Parameter

Annual Resource Deployment Plan Table of Contents

Attachment B: Unregulated Contaminant Monitoring Rule (UCMR) Partnership Agreement

Illinois Environmental Protection Agency
U.S. Environmental Protection Agency Region 5
PARTNERSHIP AGREEMENT for the IMPLEMENTATION of the
UNREGULATED CONTAMINANT MONITORING REGULATION (Cycle 3)

BACKGROUND

The goal of the Unregulated Contaminant Monitoring Regulation (UCMR) under the Safe Drinking Water Act (SDWA) is to obtain reliable data concerning the occurrence of unregulated contaminants in drinking water as one step to determine whether or not to regulate them. The EPA is to make this determination in a public process with input from States and other stakeholders. Since EPA and the States and Tribes are partners in the implementation of any future regulations associated with these contaminants, they have a joint and mutual interest in obtaining the best data possible through the monitoring program under the UCMR.

EPA is proposing to require all public water systems (PWSs) serving more than 10,000 people, and a representative sample of 800 PWSs serving 10,000 or fewer people, to conduct Assessment Monitoring (List 1) for 28 chemicals during a 12-month period from January 2013 to December 2015. As under previous cycles of the UCMR, EPA would continue to conduct and pay for the monitoring required for those selected PWSs serving 10,000 or fewer people. As proposed, UCMR3 does not include any contaminants to be monitored in a Screening Survey (List 2). If the final UCMR3 does not include a Screening Survey, then the State will not need to perform any tasks in this Partnership Agreement pertaining to the List 2 monitoring. Additionally, 800 small vulnerable nondisinfecting groundwater PWSs serving 1,000 or fewer people will be required to conduct the Pre-Screen Testing (List 3) for 2 virus contaminants and 5 indicator variables. Since this monitoring requires specialized sampling and is only being conducted at small systems, the EPA's Office of Ground Water and Drinking Water (OGWDW) will coordinate the monitoring at the selected sites. The Pre-Screen Testing will be conducted during a 12-month period between January 2013 and December 2015.

States have requested to assist the EPA in implementation of this regulation through a "memorandum of agreement," which is represented by this Partnership Agreement (PA). Consistent with the flexibility provided by the SDWA, the revised UCMR is not to be adopted by each State or carried out as part of each State's primacy responsibilities. However, there are specific responsibilities that a State could carry out as part of a PA with the EPA to ensure that the national database receives the best information on unregulated contaminants for future regulatory efforts. As a result, the EPA has developed this model PA. The PA will be used by the EPA Regional Offices and the States to establish the extent to which the State will participate in the preparation for and the implementation of the UCMR.

PURPOSE

This PA is intended to support the implementation of the UCMR by identifying the key implementation activities which will be performed by the State for the third UCMR monitoring cycle (UCMR3). While States are not responsible for implementing the UCMR, the Association of State Drinking Water Administrators (ASDWA) and the EPA encourage States to assist the EPA to the extent feasible as the activities in this PA are

implemented. The principal agent within the EPA's OGWDW charged with implementation responsibility for the UCMR is the Technical Support Center (TSC), located in Cincinnati, Ohio. A key role of the EPA Regional Office is to establish an agreement with States; identifying what each State will do to implement specific provisions of the regulation. The extent to which the State engages in implementing the UCMR jointly with the EPA will depend on many considerations. If a State wishes to participate in UCMR implementation, the State must agree to carry out the review of the initial State Monitoring Plan, as provided in Section 1445(a)(2)(C)(I) of SDWA. This role is provided in Part 1, Necessary Responsibilities, of the attached agreement. The State may elect to assume additional responsibilities over and above those identified in Part 1 in assisting the EPA's direct implementation responsibility for the UCMR. These other responsibilities are identified in Part 2, Supplemental Responsibilities. These are to be determined through discussions between Regions and each State.

To implement the UCMR in an orderly and timely fashion, this PA must be signed by **June 30, 2011**. If it is not signed by that date, it will be assumed that the State is not partnering with the EPA to implement the UCMR3.

RATIONALE

The basis for this PA to implement the regulations at 40 CFR 141.35 and 141.40 is Section 1445(a)(2)© of the SDWA and the expressed desire of States to support the EPA's receipt of high quality data through their participation. Specifically, States indicated their desire to work with public water systems concerning their monitoring responsibilities and generally expressed a willingness to assist the EPA in implementing the UCMR.

LIMITATIONS

All commitments made in this PA are subject to the availability of funds. The parties agree that they will bear their own cost of participation in the PA.

This PA does not create any right or benefit, substantive or procedural, against the parties, their officers or employees, or any other person.

MODIFICATION NOTIFICATION

If for whatever reason the State will not be able to complete any task agreed to in this PA, the State should notify the Technical Support Center and the relevant EPA Regional Office as soon as possible to avoid confusion and implementation delays.

UCMR IMPLEMENTATION: ROLES AND RESPONSIBILITIES

The tasks listed below identify activities that may be carried out by the State under the PA. The list is organized in two parts that address, respectively, necessary and supplemental activities. If a State desires to enter into a PA, the State must agree to review the SMP, with the option to provide assistance with the other responsibilities in Part 2. Part 2 has important functions to be undertaken which may be most effectively performed by the State.

Please place a mark next to each activity for which the State will take responsibility.

Part 1 - Necessary Responsibilities

1. X Review the draft State Monitoring Plan (SMP) to verify proper classification of public water systems (PWSs). The SMP is a comprehensive list of community and nontransient, noncommunity water systems, including: 1) all large PWSs (serving >10,000 persons), and EPA-selected small PWSs (serving <10,001 persons) that must conduct Assessment Monitoring; 2) all EPA-selected small PWSs that must conduct the Pre-Screen Testing; and possibly 3) all very large PWSs and EPA-selected small and large PWSs that must conduct Screening Surveys. The SMP must be returned to the EPA/TSC within 60 days of receipt of the draft SMP.

Part 2 - Supplemental Responsibilities

2. X Provide (or ensure) the proper PWS inventory data (PWSID, facility ID and sample point ID) for each PWS to use for reporting their monitoring data in the Safe Drinking Water Accession and Review System (SDWARS). This may include initially providing the complete inventory and correcting or adding facilities and/or sample points, when necessary.

3. ___ Review representative sampling plans for reduced monitoring submitted by PWSs with groundwater sources that have multiple entry points to the distribution system. Inform the EPA of the State's approval, modification, or disapproval. **If the EPA does not receive your recommendation within 60 days of your receiving the PWS's proposed representative groundwater wells monitoring plan, then the EPA will assume State concurrence.**

4. ___ Notify large PWSs of their Assessment Monitoring and/or Screening Survey responsibilities within 30 days of receiving your final SMP. Within 30 days of notification, provide the EPA/TSC with a list of the notified PWSs. **If the EPA does not receive your list of notified PWSs within 60 days of your final SMP, then the EPA will notify large systems.**

5. ___ Notify small PWSs that are part of the final SMP of their Assessment Monitoring or Screening Survey responsibilities within 30 days of receiving your final SMP. Within 30 days of notification, provide the EPA/TSC with a list of the notified PWSs. **If the EPA does not receive your list of notified PWSs within 60 days of your final SMP, then the EPA will notify small systems.**

6. ___ Notify the EPA/TSC at least 6 months before monitoring is to occur that the State will perform the sampling for the small PWSs in the SMP for Assessment Monitoring and/or Screening Surveys. **If the EPA does not hear from you by this deadline, then the EPA will assume the PWSs will perform the sampling.**

7. ___ Specify an alternate monitoring date, if the State is going to collect samples for small PWSs. **If this schedule is not returned with the SMP under Part 1 of this PA, then the EPA will assume the previously assigned schedule.**

8. ___ If the State is going to collect large PWSs samples, assign the monitoring schedule for the large PWSs. **If this schedule is not returned with the SMP under Part 1 of this PA, then the EPA will assume the previously assigned schedule.**

9. ___ Assist the EPA in obtaining compliance through follow-up contact with PWSs concerning their monitoring responsibilities and concerning instances of noncompliance.

Table 1. Primacy Activities

Activity Components	State Commitment	Region 5 Activities	State/U.S. EPA Evaluation
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
1.1 – Adopt all rules in a timely manner (within two year extension period). Issue: "There are concerns that the emerging technologies associated with LT2SWTR (ultraviolet light disinfection and membrane filtration specifically) are increasingly difficult due to their complexity and lack of staff capable of devoting sufficient time to study the issues. Additional staff in the Permit Section is desirable to devote adequate resources to them." The state has identified this issue in their 2010 Joint Evaluation and will discuss alternatives.	Illinois EPA has adopted the rules above and is implementing provisions of the rules thru inspections and providing training, technical assistance and taking enforcement actions as necessary.	Region 5 is currently processing the primacy approval for LT2/Stage2.	
1.2 – Notify all surface water and GUDI systems of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line. NCWS Monitoring schedules will be available on-line when IDPH has Drinking Water Watch up and running – projected date is the end of 2012.	As requested, promote understanding of surface water treatment regulations by conducting presentations at state water industry organization functions.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
1.3 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system information), and violations for the Surface Water Treatment Rules. *NOTE: The next update for SDWIS/State will contain compliance modules for Stage 2 and LT-2 rules.*	Data is maintained in SDWIS/State.		
1.4 – Electronically report all TT, M/R, and PN violations and inventory updates to SDWIS/FED for all surface water systems.	Data is maintained in SDWIS/State and will be used to update SDWIS/FED.	►R5 will evaluate extent to which LT2 violations are reported to SDWIS/FED. New Rule Violations as of April 2011 (2008-2010 data) – M/R – LT2 ESWTR - 1	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
1.5 – Conduct and report sanitary surveys at surface water (40 CFR Part 141 Subpart H) systems. A completed sanitary survey means the date a sanitary survey visit was conducted in which all eight sanitary survey components have been addressed per 142.16(b)(3)(i). If a sanitary survey takes multiple days or visits to complete, only the latest date or last visit is expected to be reported for the final visit date that completes the eight components of a sanitary survey. Consider using sanitary surveys to evaluate and document status and progress of Source Water Protection and Sustainable Infrastructure activities (see sections 4.0 and 7.0 of the "other activities" section below, respectively).	Illinois has committed to completing 95% of the surface water sanitary surveys under the national measures.	Provide training, as requested. ► Region 5 will measure completeness of sanitary surveys within evaluation time period (three or five years). As of April 2011 (2008-2010 data) CWS - 48 not completed, 528 completed, 576 total systems. 91.7% NTNCWS – 1 not, 6 completed, 7 total. 85.7% TNCWS - l not, 113 completed, 114 total. 99.1% This national measure will be finalized in July 2011. It will be measured again in July 2012 for the period of 2009 to 2011.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
1.6 – Ensure that all surface water and GUDI systems that notify the State that they recycle spent filter backwash water, thickener supernatant, or liquids from dewatering processes, return these flows through the processes of a system's existing conventional or direct filtration system, or at alternate location approved by the State.	Replies have been received from all surface water supplies.		
1.7 – Use sanitary surveys, CPEs, other inspections, or other activities to evaluate recycled backwash water practices when they occur at surface water and GUDI systems. When those practices are not in compliance with the FBRR require the system to modify the practices to achieve compliance.	Ongoing – will continue.		
1.8 – Ensure that filter/disinfection practices are adequate to achieve inactivation/removal requirements for regulated microbial contaminants found in surface water sources.	Ongoing – will continue.		
1.9 – Follow-up on turbidity TT violations.	Ongoing – will continue.	Region 5 will assist as necessary, or as requested.	
1.10 – Follow-up on individual filter turbidity M/R violations. **a.** Track	Ongoing – will continue. Tracked in SDWIS/State.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
individual filter turbidity trigger exceedances. **b.** Track completion of individual filter turbidity profiles for systems exceeding individual filter triggering criteria.			
1.11 – When required, track the completion of CPE/CTA for PWSs.	Ongoing – will continue. Tracked in SDWIS/State.		
1.12 – Ensure that a residual disinfectant concentration is measured according to rule requirements.	Ongoing – will continue.		
1.13 – Follow-up on disinfection residual TT violations.	Ongoing – will continue	Region 5 will assist as necessary, or as requested	
1.14 – Follow up on disinfection residual M/R violations.	Ongoing – will continue.	Region 5 will assist as necessary, or as requested	
1.15 – Report treatment data (e.g., treatment codes for all surface water, GUDI, and purchased GUDI sources, seller's PWSID number for purchased surface water and purchased GUDI sources, etc.)	Ongoing – will continue. Tracked in SDWIS/State.		
1.16 – Ensure that disinfection profiling and benchmarking is conducted when required by rule.	Ongoing – will continue		
1.17 – Ensure that all required records are kept by surface water systems.	Ongoing – will continue.		
1.18 – Complete remaining GUDI determinations.	Ongoing – will continue		

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
2.0 – Total Coliform Rule			
2.1 – Notify all public water systems of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.		
2.2 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system information) and violations for the TCR.	Ongoing – will continue. Tracked in SDWIS/State		
2.3 – Electronically report all TCR MCL, M/R and PN violations and inventory updates to SDWIS/FED for all public water systems.	Ongoing – will continue. Tracked in SDWIS/State		
2.4 – Follow-up on all MCL violations and determine a proper course of action to ensure public health protection.	Ongoing – will continue. Tracked in SDWIS/State	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
2.5 – Ensure sanitary surveys are conducted periodically that, at a minimum, meet frequency requirements specified by rule. Consider using sanitary surveys to evaluate and document status and progress of Source Water Protection and Sustainable Infrastructure activities (see sections 4.0 and 7.0 of the "other activities" section below, respectively).	Sanitary surveys will be conducted on all CWS as frequently as feasible under existing resource constraints. IL is committed to taking corrective actions that will comply with the requirements of this Rule. NCWSs are on a 1 to 2 year cycle. Groundwater Section staff are updating source water assessments and Drinking Water Program Staff are seeking efficiencies to encourage Capacity Development at community water supplies.		
2.6 – Follow-up on all M/R violations.	Ongoing – will continue.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
3.0 – Ground Water Rule			
3.1 – Adopt the GWR in a timely manner (within two year extension period).	The IPCB adopted the GWR on 7/27/2007 and the Primacy Application was delivered to Region 5 on 11/3/2009.	The GWR has been reviewed and issues identified and sent to the State. State comments received and in the process of discussion.	
3.2 – Notify all public water systems of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.	As requested, promote understanding of the GWR by conducting presentations at state water industry organization functions after promulgation.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
3.3 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system information), and violations for the GWR.	*States to relay to Region 5 any issues with limited SDWIS/State rule tracking functionality.* The Illinois EPA has not yet encountered limitations.	Region 5 commits to communicate any issues our states have with limited SDWIS/State rule tracking functionality to HQ via the national GWR workgroup.	
3.4 – Electronically report all TT, M/R and PN violations and inventory updates to SDWIS/FED for all public water systems.	Data will be tracked in SDWIS/State and transferred to SDWIS 3.0 when available.	►Region 5 will evaluate extent to which GWR violations are reported to SDWIS/FED.[1] New Rules: Violations as of April 2011 (2008-2010 data) M/R – GWR – 2 Other – GWR – 1	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
3.5 – Conduct and report sanitary surveys that meet requirements by **12/31/12** at CWSs and then every 3 years thereafter, and by **12/31/14** at NCWSs served by a groundwater source and then every 5 years thereafter. A completed sanitary survey means the date a sanitary survey visit was conducted in which all eight sanitary survey components have been addressed per 142.16(b)(3)(i). If a sanitary survey takes multiple days or visits to complete, only the latest date or last visit is expected to be reported for the final visit date that completes the eight components of a sanitary survey. Consider using sanitary surveys to evaluate and document status and progress of Source Water Protection and Sustainable Infrastructure activities (see sections 4.0 and 7.0 of the "other activities" section below, respectively). Issue: (same issues regarding staff resource as in LT2SWTR in 1.1)	Sanitary surveys will be conducted on all CWS as frequently as feasible under existing resource constraints. IL is committed to taking corrective actions that will comply with the requirements of this Rule. NCWSs are on a 1 to 2 year cycle. Reports will be made as resources allow.	► R5 will measure completeness of sanitary surveys within evaluation time period (three or five years).[2] As of April 2011 (2008-2010) data CWS – 174 not, 992 completed, 1166 total. 85.1% NTNCWS – 11 not, 359 completed, 370 total. 97.0% TNCWS – 48 not, 2854 completed, 2902 total. 98.3%	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
3.6 – Ensure that GWSs that must treat to the 4-log virus removal/inactivation standard conduct compliance monitoring to demonstrate treatment effectiveness.	Treatment will be required when necessary to ensure a multi-barrier protection strategy at all community water supplies in Illinois.		
3.7 – Determine appropriate corrective actions in consultation with GWSs that collect fecal indicator-positive source water sample(s) or that have significant deficiencies.	IEPA is implementing a groundwater rule implementation strategy approved by Region 5. IDPH will implement the triggered source water monitoring requirements by the compliance date specified in the GWR.		
3.8 – Determine when TT violations occur and follow-up to return them to compliance.	See 3.7 above.		
3.9 – Determine if optional source water monitoring will be used. If so, apply monitoring requirements to selected systems.	Ongoing – follow up actions will be taken as appropriate.		
3.10 – Follow-up on corrective action consultation and reporting violations.	Ongoing – follow up actions will be taken as appropriate.		
3.11 – Follow-up on M/R violations.	Ongoing – follow up actions will be taken as appropriate.		
3.12 – Follow-up on public notification violations.	Ongoing – follow up actions will be taken as appropriate.		

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
3.13 – Follow-up on other discovered recordkeeping/reporting violations.	Ongoing – follow up actions will be taken as appropriate.		

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
4.0 – Nitrate and Nitrite			
4.1 – Notify all public water systems of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.		
4.2 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system information), and tracks nitrate/nitrite violations.	Ongoing – will continue. Tracked in SDWIS/State.		
4.3 – Electronically report all MCL, M/R and PN violations and inventory updates to SDWIS/FED for all public water systems.	Ongoing – will continue. Tracked in SDWIS/State.		
4.4 – Follow-up on all MCL violations and determine a proper course of action to ensure public health protection.	Ongoing – will continue. Tracked in SDWIS/State.	Region 5 will assist as necessary, or as requested.	
4.5 – Follow-up on M/R violations.	Ongoing – will continue. SDWIS/State used to track and flag violations and follow-up using sanitary survey investigation as needed.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
5.0 – Lead and Copper			
5.1 – Adopt LCR short-term revisions (LCRSTR) in a timely manner (within two-year extension period).	IPCB has adopted the LCR short term and minor revisions and the rules are being implemented. IDPH has submitted milestone data to the ODS and will continue updating data.	Provide training for states on treatment changes that could affect lead levels (focus on chlorine and chloramines, in anticipation of Stage 2 compliance in 2012).	
5.2 – Incorporate rule revisions into state oversight and enforcement operations.	IPCB has adopted the LCR short term and minor revisions and the rules are being implemented.		
5.3 – Notify all CWSs and NTNCWSs of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.		
5.4 – Maintain a data base management system that accurately tracks lead and copper action level exceedances (sample data), violations, and milestone data for CWSs and NTNCWSs.	Ongoing – will continue. Tracked in SDWIS/State.		

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
5.5 – Electronically report violation and milestone data to SDWIS/FED for all CWSs and NTNCWSs, lead and copper 90th percentile action level sample data for all large and medium sized systems, and 90th percentile action level exceedance sample data for small systems.	Ongoing – will continue. Tracked in SDWIS/State.	Region 5 will finalize the LCR module of the compliance determination and violation reporting training (CDVRT). ►Region 5 will evaluate extent to which LCRSTR violations are reported to SDWIS/FED.[1] New Rules: Violations as of April 2011 (2008-2010 data) M/R - LCR - 72 ►Region 5 will evaluate completeness of reporting LCR 90th percentile action level sample data. Report as of April 2011 (2008-2010 data) – CWS – 438 – 100% complete.	
5.6 – Designate OCCT and follow-up on OCCT installation violations at all required PWSs.	Ongoing – will continue. Tracked in SDWIS/State.		
5.7 – Follow-up on all M/R violations.	Ongoing – will continue. SDWIS/State used to track and flag violations and follow-up using sanitary survey investigation as needed.	Region 5 will assist as necessary, or as requested.	
5.8 – Optimize corrosion control at NTNCWSs that are unlikely to serve water to sensitive sub-populations.	Ongoing- will continue.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Surface Water Treatment Rules: FBRR, SWTR, IESWTR, LT1ESWTR, LT2ESWTR			
5.9 – Set optimal water quality parameter ranges and/or minimum values for all CWSs and NTNCWSs where required by the LCR.		Headquarters to provide training to R5 states on setting appropriate optimal water quality parameter (OWQP) ranges in R5 office during Summer 2011.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
6.0 – D/DBPRs			
6.1 – Adopt all rule changes in a timely manner (within two year extension period).	IPCB has adopted LT2 & Stage 2 rules and IEPA & IDPH are in the process of implementing the regulations.	Train state staff about Stage 2 D/DBPR by offering in-state and/or regional training opportunities. As noted in 5.1, provide training for states on treatment changes that could affect lead levels (focus on chlorine and chloramines, in anticipation of Stage 2 compliance in 2012). EPA-HQ will provide a webinar in August 2011 on Stage 2 compliance, including transition issues.	
6.2 – Notify all CWSs and NTNCWSs (serving greater than 10,000 people) delivering water that has been treated with a primary or residual disinfectant (other than ultraviolet light) of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.	Region 5 will handle and close out all enforcement actions that we've initiated and will continue to take enforcement actions until at least the point of state rule adoption. Once the state has adopted the rule, Region 5 will be available to assist with any enforcement actions needed.	.

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
6.0 – D/DBPRs			
6.3 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system information), and violations for the D/DBP rule.	Data will be maintained in SDWIS/ State		
6.4 – Electronically report all MCL, M/R TT and PN violations and inventory updates to SDWIS/FED for all public water systems.	Ongoing – will continue. Tracked in SDWIS/State	Stage 2 Data Entry Instructions (DEI) was provided to the states on February 10, 2011. ►Region 5 will evaluate extent to which Stage 2 violations are reported to SDWIS/FED.[1]	
6.5 – Follow-up on chlorine dioxide MRDL violations.	Ongoing – will continue	Region 5 will assist as necessary, or as requested.	
6.6 – Follow-up on all other MCL/MRDL violations.	Ongoing – will continue	Region 5 will assist as necessary, or as requested.	
6.7 – Ensure that Subpart H systems using conventional filtration operate in compliance with the DBP precursor control treatment technique requirements.	Ongoing – will continue	Region 5 will assist as necessary, or as requested.	
6.8 – Follow-up on all M/R violations.	Ongoing – will continue	Region 5 will assist as necessary, or as requested.	
6.9 – Determine which systems do not qualify for reduced monitoring and inform them they must return to the routine monitoring frequency.	Ongoing – will continue		
6.10 – Follow-up on all other reporting requirement violations.	Ongoing – will continue	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
7.0 – IOCs (including Arsenic)			
7.1 – Adopt all rule changes in a timely manner (within two year extension period).	IPCB has adopted IOC Rules and they are being implemented (including arsenic).		
7.2 – Notify all CWSs and NTNCWSs of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.		
7.3 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system information), and violations for the IOCs.	Ongoing – will continue. Tracked in SDWIS/State.		
7.4 – Electronically report all MCL, M/R and PN violations and inventory updates to SDWIS/FED for all CWSs and NTNCWSs.	Ongoing – will continue. Tracked in SDWIS/State.		
7.5 – Follow-up on MCL violations and take an appropriate course of action that ensures public health protection.	Ongoing – will continue. Tracked in SDWIS/State.	Region 5 will assist as necessary, or as requested.	
7.6 – Follow-up on M/R violations.	Ongoing – will continue. Tracked in SDWIS/State.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
8.0 – Radionuclides (including Radon)			
8.1 – Adopt all rule changes in a timely manner (within two year extension period).	IPCB has adopted Radionuclide Rules and they are being implemented.	R5 plans to distribute a gross alpha holding time report by December 2011.	
8.2 – Notify all CWSs of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.		
8.3 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system information), and violations for radionuclides.	Ongoing – will continue.		
8.4 – Electronically report all MCL, M/R and PN violations and inventory updates to SDWIS/FED for all CWSs.	Ongoing – will continue. Tracked in SDWIS/State.		
8.5 – Follow-up on MCL violations and take an appropriate course of action that ensures public health protection.	Ongoing – will continue. Tracked in SDWIS/State.	Region 5 will assist as necessary, or as requested.	
8.6 – Follow-up on M/R violations.	Ongoing – will continue. Tracked in SDWIS/State.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
9.0 – SOCs			
9.1 – Notify all CWSs and NTNCWSs of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.		
9.2 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system information), and violations for the SOCs.	Ongoing – will continue. Tracked in SDWIS/State.		
9.3 – Electronically report all MCL, M/R and PN violations and inventory updates to SDWIS/FED for all CWSs and NTNCWSs.	Ongoing – will continue. Tracked in SDWIS/State.		
9.4 – Follow-up on MCL violations and take an appropriate course of action that ensures public health protection.	Ongoing – will continue. Tracked in SDWIS/State.	Region 5 will assist as necessary, or as requested.	
9.5 – Follow-up on M/R violations.	Ongoing – will continue.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
10.0 – VOCs			
10.1 – Notify all CWSs and NTNCWSs of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line		

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
10.0 – VOCs			
10.2 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system info), and violations for VOCs.	Ongoing – will continue. Tracked in SDWIS/State		
10.3 – Electronically report all VOC MCL, M/R and PN violations and inventory updates to SDWIS/FED for all CWSs and NTNCWSs.	Ongoing – will continue. Tracked in SDWIS/State		
10.4 – Follow-up on MCL violations and take an appropriate course of action that ensures public health protection.	Ongoing – will continue.	Region 5 will assist as necessary, or as requested.	
10.5 – Follow-up on M/R violations.	Ongoing – will continue.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
11.0 – Organic and Inorganic Chemical Monitoring Waiver Program			
11.1 – Any changes to the originally approved waiver program must be submitted to Region 5 for approval.	Changes to the approved program not needed during 2010. Applicable system's waivers will be evaluated during 2011 for the January 1, 2011 thru December 31, 2013 compliance period.		

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
12.0 – Sodium			
12.1 – Notify all CWSs of their regulatory requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.		
12.2 – Maintain a data base management system that accurately tracks the inventory (including routine updates of system information), and violations for sodium M/Rs.	Ongoing – will continue. Tracked in SDWIS/State.		
12.3 – Notify appropriate local and State health departments of the sodium levels in CWS drinking water.	Ongoing – will continue.		
12.4 – Follow-up on M/R violations.	Ongoing – will continue.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
13.0 – Public Notification			
13.1 – Notify all public water systems of their public notification requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.		
13.2 – Maintain a data base management system that accurately tracks PN violations.	Ongoing – will continue. Tracked in SDWIS/State		
13.3 – Electronically report all public notification violations to SDWIS/FED.	Ongoing – will continue.		
13.4 – Follow-up on all Tier 1, 2 & 3 violations.	Ongoing – will continue.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities

Activity Components	State Commitment	Region 5 Activities	State/U.S. EPA Evaluation
14.0 – CCR			
14.1 – Notify all regulated water systems of their CCR requirements.	Public water systems are notified of their requirements, and monitoring schedules are updated and made available on-line.		
14.2 – Maintain a data base management system that accurately tracks CCR violations.	Ongoing – will continue.		
14.3 – Electronically report all CCR violations to SDWIS/FED.	Ongoing – will continue. Tracked in SDWIS/State.		
14.4 – Enforce the rule when the water system has not issued a CCR or issued one with insufficient content.	Ongoing – will continue. Tracked in SDWIS/State.	Region 5 will assist as necessary, or as requested.	

Table 1. Primacy Activities

Activity Components	State Commitment	Region 5 Activities	State/U.S. EPA Evaluation
13.0 – Public Notification			

Table 1. Primacy Activities

Activity Components	State Commitment	Region 5 Activities	State/U.S. EPA Evaluation
15.0 – Laboratory Certification			
15.1 – All laboratories that produce results for compliance with SDWA are certified by the State to which those results are reported. These certifications shall be done at a frequency of at least once every three years and will meet all requirements of 40 CFR parts 141 and 142. Guidance for these certifications is provided in the *EPA* Manual for the Certification of Laboratories Analyzing Drinking Water, Fifth Edition. Third parties may be used to conduct the on-site inspections of the laboratories, but the certifications must be issued by an appropriate State official. Issue: "State travel restrictions continue to prevent the training of additional staff to provide back-up for conducting the on-site laboratory assessments"	Illinois does require that all laboratories be certified for SDWA sample result submission and certification occurs every two years. The laboratories are certified to NELAC standards which are equivalent to the EPA Manual. At this time, third parties are not being used to conduct on-site visits.	The Region will assess the State labs and the State certification programs in FY 2012.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
16.0 – Compliance and Enforcement Management			
16.1 – Participate with R5 in compliance and enforcement planning actions including referrals, Enforcement Verification audits, and state compliance and enforcement strategy updates.	IEPA and IDPH commit to participate in the November 28 – December 1, 2011, PWS program review for CWS & NCWS.	R5 will conduct a PWS program review (formerly called data verification) in IL in late CY11. (scheduled for November 28 – December 1, 2011) -Review consists of CWS & NCWS -Region 5 will provide State Target List and Questions prior to review.	
16.2 – The State will conduct compliance assistance and enforcement activities to help prevent systems from becoming ERP priorities and to address or resolve ERP priority systems within six months after being identified as priorities.	Ongoing – will continue. Tracked in SDWIS /State	Assist with enforcement referrals, enhanced data exchange, analysis, data clean up, or other joint efforts as requested by state.	
16.3 – Evaluate compliance with all rules for which the State has primacy. Respond to all violations, provide compliance assistance where appropriate and escalate to formal enforcement where systems have not returned to compliance in a timely way or are not complying with a schedule to return to compliance.	Ongoing – will continue.	Assist with enforcement referrals, analysis, and data clean up or other joint efforts as requested by state.	

16.4 – The State will send R5 an update on compliance and enforcement activities, within the timeframe requested in the quarterly ERP letter.	Ongoing – Illinois EPA will continue to provide timely updates to USEPA-Region 5 requests.	Each quarter, Region 5 will send the states updated ERP reports requesting a state update. Region 5 will integrate State updates into reports before the next request is sent out.	
16.5 – Electronically report state formal enforcement actions, return to compliance (SOX) dates, and deactivation dates to SDWIS/FED, and correct data errors in SDWIS/FED which result in systems erroneously being classified as priorities based on the ERP. Reporting SOX dates and enforcement actions and ensuring to link to all appropriate violations helps ensure an accurate ERP list.	The State will update SDWIS/FED with this information quarterly, and link ERP addressing enforcement actions, and/or SOX dates to violations as appropriate such that SDWIS/FED accurately represents those actions for each violation affected.		
16.6 – See OECA annual commitment system (ACS) measure (SDWA02) in Attachment A. Commit to address and resolve a specific number of systems between July 2011 and June 2012.	Illinois now has legislation making Compliance Commitment Agreements enforceable. At this time, the impact of this legislation will be difficult to assess. Hence, Illinois EPA will commit to address and resolve 80% of the systems over the reporting period.	►Region 5 will track state commitments under measure SDWA02 and update state quarterly, engaging in discussion with states on progress as needed.	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
17.0 – Data Management			
17.1 – State must use the latest version of SDWIS/FedRep to validate and correct errors prior to data submittal. The State must also correct all object errors and as many data quality errors identified by the SDWIS/FED-ODS processing software. These corrections should be submitted before the end of the quarter. Further, States should follow agreed upon protocol (dated 10/5/2006) for transmittal, receipt, and review of output reports by the Region.	IDPH will commit to completing the locational data for the 145 Non-transient and Transient Non Community source water system facilities. For each data submission with errors, the State will contact the Region about their plans for fixing the errors.	Provide technical assistance and program assistance to all Region 5 States related to data management.	
17.2 – Continue to improve inventory reporting to SDWIS/FED focusing primarily on inventory data quality errors and improving locational data for CWS intakes, wells, and treatment plants for increased emphasis on Regional emergency response needs.	Ongoing – will continue.		
17.3 – Continue to improve the data reliability by the following activities (Data Quality Improvement Plan): 17.3a – State will commit to full automation including electronic reporting from labs and automated monitoring schedule generation and system notification.	Since data management is critical to each State's ability to maintain primacy, the State shall send a representative to the annual ASDWA Data Management Users conference. Note: Item 17.3g has been Completed and data will continue	Region 5 is continuing to develop compliance determination and violation reporting training (CDVRT). The LCR CDVRT module is nearly complete. In addition, we are trying to obtain funding to complete the remaining modules.	

17.3b – State will automate the compliance determinations for all rules for which it has primacy. 17.3c – State will update standard operating procedures, as necessary, to ensure proper compliance determinations are being made. 17.3d – State will provide timely compliance determination training to staff, particularly for new rules. 17.3e – The State will work with the Region to test/evaluate the eDV tool. 17.3f – For States using SDWIS/State, if they are not using the most current version of SDWIS/State, they should commit to a timeframe for when that would happen. In addition, the State should list those modules they are not using at all or not fully utilizing and describe the State's plans or schedule to use them including the eDV tool. 17.3g – The State will ensure the accuracy of the service area reporting for school and daycare PWSs and make revisions as necessary.	to be updated.		

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
18.0 – Annual Compliance Report			
18.1 – Prepare and submit an Annual Compliance Report (ACR). Please provide a summary of the number and percentage of systems (by system type) in compliance with monitoring requirements, by rule, as part of this report.	Illinois EPA will provide future reports by July 1st of each calendar year.	OECA to provide annual ACR guidance. Region 5 will forward guidance when received.	
19.0 – Variances and Exemptions			
19.1 – Follow all variance and exemption requirements when variances and exemptions are allowed by the State.	This is not applicable to Illinois.		

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
20.0 – Conduct Joint Assessment of Program Progress Using Evaluation Tools such as U.S. EPA's Strategic Plan and State/U.S. EPA Shared Goals			
20.1 – Gather information to track strategic plan progress. State directors will attend the annual Region 5 state directors meeting in **April 2012** and **April 2013** to discuss primacy and implementation issues.	IEPA will report these measures through the PPA.	Compile information and report to HQ. Annually assess each State's progress in attaining the shared goals milestones, and identify U.S. EPA or State follow-up actions needed to maintain or improve compliance. Negotiate appropriate disinvestments with States as necessary to ensure that the highest priority work is done. Work with State Drinking Water and Ground Water Programs to increase public	

Table 1. Primacy Activities			
Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
20.0 – Conduct Joint Assessment of Program Progress Using Evaluation Tools such as U.S. EPA's Strategic Plan and State/U.S. EPA Shared Goals			
		understanding of the impacts of budget cuts on public health protection efforts, and assist in state efforts to gain additional program resources. Region 5 will schedule semi-annual conference calls about every six months to discuss status updates and issues regarding state-specific topics.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
1.0 – Preparing for Security Threats at PWSs			
1.1 – State-specific security work plan activities.	Report work plan progress semi-annually.	Review work plan updates. Hold quarterly conference calls with state security contacts.	
1.2 – The state has adopted and can implement an adequate plan for the provision of safe drinking water under emergency circumstances including, but not limited to, earthquakes, floods, hurricanes, and other natural disasters.	IEPA has planning documents in association with the Illinois Emergency Management Agency. Based upon resource limitation, sector specific plans may be evaluated in the future to augment existing plans.	Review state emergency water plans and consult with the state on implementation capabilities.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
2.0 – Operator Certification			
2.1 – Annually provide documentation to U.S. EPA showing the ongoing implementation of the Operator Certification Program to avoid 20% withholding of the DWSRF capitalization grant.	Revise ERG workplan to reflect progress. Due Dates – September 30, 2011 and September 30, 2012 Develop a fiscal plan as the ERG approaches the end of the budget period (December 31, 2012).	Coordinate information and issues on Op Cert Program implementation and annual reports as well as ERG progress. The ERG funds are to be expended within the existing grant end dates, and to help Region 5 states expend these funds within this timeframe, Region 5 staff will share information about successful state efforts to use ERG funds.	
2.2 – For operators of CWSs and NTNCWSs: (1) provide training and certification opportunities for new operators and (2) provide training and opportunities for upgrading and renewing certification for existing operators.	Ongoing – will continue.		

2.3 – Provide supplemental certification and training to water system operators on relevant topics from section 7.0 "Sustainable Infrastructure" of the ARDP to ensure sustainable water utilities and water supplies. For example, conduct CEU-eligible training to water operators on supply/demand water efficiency or add supplemental questions on treatment plant energy efficiency activities to certification exams.	Will coordinate with USEPA-Region 5 on this activity.	Region 5 sustainable water infrastructure (SWI) workgroup will provide training and outreach materials to water system operators and technical assistance providers, in coordination with states.	

Table 2. Other Activities

Other Activity Components	State Commitment	Region 5 Activities	State/U.S. EPA Evaluation
3.0 – Capacity Development			
3.1 – Annually provide documentation to U.S. EPA showing the ongoing implementation of both the new systems program and the existing systems strategy to avoid 20% withholding of the DWSRF capitalization grant. Annual report should address the new Capacity Development reporting measures.	IEPA will provide future reports by December 31 of each calendar year.	Region 5 will send a reminder to the State about the capacity development annual report in August 2011 and August 2012.	
3.2 – Submit a report to the governor and provide a copy to U.S. EPA on the efficacy of the strategy and the progress made toward improving the capacity of water systems in the state.	IEPA will provide future reports to the governor as appropriate (next submittal is due by October 1, 2011).	Region 5 will send a reminder to the State about the report to the governor in August 2011.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
3.0 – Capacity Development			
3.3 – Promote "Sustainable Infrastructure" activities as described in section 7.0 of the ARDP in Capacity Development activities and assessments as part of improving the capacity and sustainability of water systems and water supplies. For example, provide technical assistance on starting an asset management program or conduct energy audits for treatment plants.	Drinking Water Program Staff are seeking efficiencies to encourage Capacity Development at community water supplies.	Region 5 SWI workgroup will provide training and outreach materials and assistance on tools (i.e., Check Up Program for Small Systems (CUPSS)) to water system operators and technical assistance providers, in coordination with states.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
4.0 – Source Water Assessments and Protection			
4.1 – Update source water assessments, as resources allow.			

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
4.0 – Source Water Assessments and Protection			
4.2 – Assist local community source water protection (SWP) plan preparation and implementation in cooperation with Source Water Collaborative (SWC) members (e.g., National Rural Water Association, American Planning Association, and others).	SWP plan development and implementation will be achieved with assistance from the following SWC partners: Illinois EPA will continue to work with the IRWA and local stakeholder to encourage regulatory and non-regulatory protection programs.	Continue to develop tools as needed, foster cross-program coordination, and encourage coordination with SWC partners to encourage broad-based actions at the state and local levels to address potential sources of contamination. Facilitate the development and expansion of State-SWC partnerships. Provide feedback and guidance. Encourage interstate communication through conference calls and an annual State–R5 EPA meeting.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
4.0 – Source Water Assessments and Protection			
4.3 – Report the number of CWSs with SWP plans and the number of CWSs implementing SWP measures (electronically via SDWIS, if possible). For states that do not report via SDWIS, R5 requests that States voluntarily provide a list of system names and/or PWSID numbers that have SWP plans in place and a list of system names and/or PWSID numbers that are substantially implementing SWP as defined by the State as of the end of FY 2012 on June 30, 2012 by August 15, 2012.	Groundwater Section staff are updating source water assessments and will evaluate the most efficient mechanism to report program measures to the USEPA-Region 5.	Maintain and update State information in the Region 5 portion of the annual SWP report to EPA-HQ.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
4.0 – Source Water Assessments and Protection			
4.4 – Develop and implement coordinated approaches with other regulatory and voluntary programs to protect both the quality and quantity of source water, particularly in areas of concern.	Illinois EPA continues to actively coordinate program activities between Clean and Safe Drinking Water Act program, both within the Bureau of Water. Such activities include coordination on Clean Water Act Section 319, Mine Program, NPDES and sludge application programs. Additionally, the Interagency Coordinating Committee and Groundwater Advisory Council continue to meet on a quarterly basis which brings together planning impetus with Agricultural and Resource based Agencies as well as Regulatory Program areas.	Provide training, technical assistance, and technology transfer capabilities. Facilitate the adoption and sharing of Geographic Information System databases to support local decision making. Work with Clean Water Act program to encourage assessment of surface waters for drinking water use, prioritize impaired waters, develop TMDLs, and develop tailored approaches to achieve substantial implementation. Enhance SWP integration elements like the watershed approach, stormwater management, and prioritized enforcement inspections based on SWP. Work with the state to characterize current and future pressures on source water quality and availability. Support voluntary programs such as WaterSense and other Sustainable Infrastructure activities to protect water resources.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
4.0 – Source Water Assessments and Protection			
4.5 – Develop and expand SWP program implementation mechanisms, where possible.	Ongoing – will continue.	Promote the innovative use of DWSRF set-asides and other potential program funding streams.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
5.0 – DWSRF			
5.1 – Implement all required activities.	Ongoing – will continue.	Review IUP and set-aside workplans. Ensure the set-aside funds are spent in a timely manner or transferred to the Loan Fund and then banked for future use.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
6.0 – Conduct Joint Assessment of Program Progress Using the PWSS Program Implementation Report			
6.1 – Review the draft report prepared by Region 5 and assist in filling gaps related to the State's PWSS program to support the various components of the PWSS program implementation logic model.	Illinois EPA will continue to coordinate with USEPA Region 5.	Use the logic model to improve our ability to understand measure, assess, and communicate progress. SPM will work with state program to determine state-specific approach, and schedule.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
7.0 – Sustainable Infrastructure			
7.1 – Enable water system and water supply sustainability by providing incentives through DWSRF set-asides and grant criteria, providing training, and encouraging sustainable water infrastructure (SWI) activities including, for example, those related to water and/or energy efficiency, asset management, and climate change adaptation and mitigation activities. SWI is important to the success of other activities in this work plan, including source water protection, DWSRF, operator certification, capacity development, and all-hazards resilience approaches, etc.	Illinois is piloting a small systems compliance grant program. This program is designed to provide financial capacity by awarding $2 million in up to $200,000 increments to several very small community water supplies. This grant program is being funded through DWSRF loan repayments. Upon culmination of this program, the effort will be evaluated for future use.	Participates in a region-wide SWI workgroup created to develop and share information about the cost savings and benefits of investments in SWI initiatives, including WaterSense. Participate in regional and national EPA climate change adaptation/mitigation workgroups that share information about ongoing initiatives. ►Region 5 to contact states to identify what, if any, sustainable water infrastructure/climate change efforts are a priority.	

Table 2. Other Activities			
Other Activity Components	**State Commitment**	**Region 5 Activities**	**State/U.S. EPA Evaluation**
8.0 – Environmental Justice			
8.1 Provide incentives through DWSRF set-asides and grant criteria or otherwise promote and encourage environmental justice, for example, by targeting enforcement in communities with environmental justice concerns.	Ongoing – will continue.	Region 5 has the capability to provide states with draft GIS maps that show areas with environmental justice concerns currently through the Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT) and eventually through other tools as an interim screening approach.	

OW ACS code	**Goal 2: Clean and Safe Water Subobjective 2.1.1: Water Safe to Drink**
SDW-03	Percent of the lead action level data for the Lead and Copper Rule for CWS serving over 3,300 people that is complete in SDWIS-FED. **This is an indicator that HQ reports.**
SDW-04	In FY2012, achieve an 89 percent fund utilization rate [cumulative dollar amount of loan agreements divided by cumulative funds available for projects] for the Drinking Water State Revolving Fund (DWSRF). **HQ reports.**
SDW-05	The number of DWSRF projects that have initiated operations (cumulative). **HQ reports.**
SDW-11	Percent of DWSRF projects awarded to small PWSs serving <500, 501-3,300, and 3,301-10,000 consumers. **This is an indicator that HQ reports.**
SDW-12	Percent of DWSRF dollars awarded to small PWSs serving <500, 501-3,300, 3,301-10,000 consumers. **This is an indicator that HQ reports.**
SDW-13	Percent of DWSRF loans that include assistance to disadvantaged communities. **This is an indicator that HQ reports.**
SDW-14	Number and percent of CWSs and NTNCWSs, including new PWSs, serving fewer than 500 persons. (New PWS are those first reported to EPA in last calendar year). **This is an indicator that HQ reports.**
SDW-15	Number and percent of small CWSs and NTNCWSs (<500, 501-3,300, 3,301-10,000) with repeat health-based Nitrate/Nitrite, Stage 1 D/DBP, SWTR and TCR violations. **This is an indicator that HQ reports.**
SDW-16	Average time for small PWSs (<500, 501-3,300, 3,301-10,000) to return to compliance with acute Nitrate/Nitrite, Stage 1 D/DBP, SWTR and TCR health-based violations (based on state-reported RTC determination date). **This is an indicator that HQ reports.**
SDW-17	Number and percent of schools and childcare centers that meet all health-based drinking water standards. **This is an indicator that HQ reports.**

OECA ACS code	Goal 5: Compliance and Environmental Stewardship Subobjective 5.1.2: Address Environmental Problems from Water Pollution
5.1.2 (SDWA02)	During FY2012, the primacy agency must address with a formal enforcement action or return to compliance the number of priority systems equal to the number of its PWSs that have a score of 11 or higher on the July 2011 ETT report.
Measure	**America's Children and the Environment, Third Edition (ACE3) Drinking Water Contaminants**
E6	Percentage of children served by CWSs that did not meet all applicable health-based drinking water standards. **This is an indicator that HQ reports.**
E7	Percentage of children living in areas served by CWSs with violations of drinking water monitoring and reporting requirements. **This is an indicator that HQ reports.**

Attachment 2:

ICCAW Federal CAFO Reporting Rule Comments
Jan. 19, 2012

January 19, 2012

Via email: ow-docket@epa.gov
Attn: Docket ID No. EPA–HQ–OW–2011–0188
Water Docket, Environmental Protection Agency
Mail code: 28221T
Pennsylvania Ave. NW.
Washington, DC 20460

RE: CAFO Reporting Rule Comments - Docket ID No. EPA–HQ–OW–2011–0188

To Whom It May Concern:

The Illinois Citizens for Clean Air & Water (ICCAW) submit the following comments on the National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feeding Operation (CAFO) Reporting Rule (Docket ID No. EPA–HQ–OW–2011–0188).

ICCAW is a state-wide coalition of family farmers and community groups from Illinois advocating for sound policies and practices that protect the environment, human health, and rural quality of life from the impacts of large-scale, industrialized livestock production facilities in Illinois. A majority of its members are family farmers and rural residents that live near large-scale livestock facilities that have been adversely impacted by the problems they create.

I. EPA has responsibility and the legal authority to collect robust information from CAFOs under the Clean Water Act.

Congress enacted the Federal Clean Water Act (CWA) to "restore and maintain the chemical, physical, and biological integrity of the nation's waters."[1] The CWA is the principal legislative source of the United States Environmental Protection Agency's (EPA) authority - and responsibility - to abate and control water pollution.[2] To achieve its intended purpose, the Act sets forth a program to regulate the discharge of pollutants from "point sources." It prohibits the "discharge of a pollutant" by "any person" from any "point source" into waters of the United States except when authorized by a permit issued under the NPDES program.[3] The term "Concentrated Animal Feeding Operation" (CAFO) is specifically included in the definition of a "point source."[4]

Under Section 308 of the CWA, the EPA is authorized to collect information from the "owner or operator of any point source" to carry out the objectives of the Act. This authority includes collecting information to determine whether any person is in violation of any limitation or

[1] 33 U.S.C. § 1251(a).
[2] 33 U.S.C. §§ 1311(a), 1342, 1362 (2003).
[3] *Id.* §§ 1311(a), 1342.
[4] 33 U.S.C. § 1362 (14).

standard[5] and to compel "owners or operators of point sources to establish and maintain records; make reports…and provide such other information as EPA may reasonably require…" to achieve the Act's intended purpose.[6]

Clearly, based on a plain reading of the Act, EPA has the *authority* and *responsibility* to collect robust information from CAFOs to ensure they comply with the CWA so that the integrity of our nation's waters are restored and maintained. Although EPA has had more than 30 years to regulate CAFOs under the CWA, the Agency still lacks the necessary information to assess the extent to which they contribute water pollution and are in compliance with the Act.[7]

To date, CAFOs have largely evaded regulation by EPA. EPA has noted that since the inception of the CWA's NPDES program in the 1970's, only a small number of CAFOs have actually sought pollution control permits, while numerous documented discharges occurred.[8] Nowhere is this situation more glaring than Illinois. According the 2010 Draft Illinois Integrated Water Quality Report and Section 303(d) List, Animal Feeding Operations are listed as one of the potential leading sources of lake and stream impairment in the state. The IEPA's Livestock Facility Investigation Annual Reports from 1999-2007 show that a large percentage of facilities violated water quality and effluent limitation standards and many of them had cited violations for not having required NPDES permits.[9] For example, the 2007 report shows that 50 livestock operations violated water quality standards, 31 violated effluent standards, and 33 were in violation for not having NPDES permits.[10] Given the fact that the IEPA typically only inspects a small percentage of known CAFOs in Illinois once every 5 years, it is reasonable to suspect that many more un-permitted discharges occur without being discovered and documented by the IEPA. Further, as of last year, Illinois had inventory information for only about 30% of the estimated 500 large CAFOs in the state and neither the IEPA nor the federal EPA had knowledge of the actual whereabouts of the vast majority of livestock operations throughout Illinois.[11] Without knowing where they are located, the agencies cannot identify and inspect facilities to determine which ones discharge and therefore are subject to NPDES regulations.

As a result of a de-delegation petition that was filed in 2008 by ICCAW against the IEPA for failing to properly regulate CAFOs, EPA Region 5 mandated the state to conduct and maintain a comprehensive survey of livestock facilities to determine which ones require NPDES permits.[12] In 2010 the IEPA committed to propose a revision in the state's livestock regulations so that livestock producers are required to file basic information with the agency to allow the IEPA to

[5] 33 U.S.C. § 1318(a).
[6] 33 U.S.C. § 1319.
[7] Government Accountability Office, Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern, GAO-08-944, September 2008, at 48.
[8] EPA, National Pollution Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations, 60 Fed. Reg. 7176-01, 7201 (Feb. 12, 2003) (codified at 40 C.F.R. pts. 9, 122-123, 412).
[9] *See*, IEPA BUREAU OF WATER, ILLINOIS EPA LIVESTOCK PROGRAM, LIVESTOCK FACILITY INVESTIGATION ANNUAL REPORTS (1999-2007), *available at:* http://www.epa.state.il.us/water/cafo/reports/index.html.
[10] *Id.* 2007 Report, at 4.
[11] *Id*.
[12] EPA, Informal Investigation of the IEPA National Pollutant Discharge Elimination System Program for Concentrated Animal Feeding Operations, September 2010, at 36.

establish a statewide inventory.[13] However, since the EPA proposed the NPDES CAFO Reporting Rule, the IEPA has expressed its intent to wait until EPA's final rule is enacted before moving forward with its own requirements, which are anticipated to be identical to EPA's.[14] Because it is expected that the IEPA, and likely other states, will rely on EPA's final CAFO Reporting Rule in crafting their own data collection programs, it is imperative that EPA enact adequate standards.

In summary, EPA has the legal *authority* and *responsibility* to collect robust information from CAFOs to ensure they comply with the CWA. Until EPA develops a comprehensive inventory of CAFOs that includes enough information for the Agency and the states to ensure compliance with the Act, they will continue to evade regulation and the CWA's goals will remain unmet. This being said, ICCAW has serious concerns with the proposed Rule as follows.

II. EPA's proposed reporting requirements lack vital information needed to carry of the objectives of the CWA.

EPA's proposal fails to include information to be collected from CAFOs per the Fifth Circuit 2008 CAFO Rule settlement agreement with the environmental petitioners. The final Rule needs to require all of the information in the agreement if EPA is to accomplish its goals in protecting water quality. The proposed Rule leaves out items such as: 1) integrator information; 2) the type and capacity of manure storage; 3) whether or not the CAFO implements a nutrient management plan, and 4) how much waste is transferred off-site and the quantity transferred to recipients of transferred manure. Without this information, how can EPA determine if a CAFO poses a pollution risk?

a. EPA should collect integrator information.

EPA has not provided a valid reason as to why the Agency does not intend to collect integrator information. There is a present trend in livestock production where large corporate producers or processors owning livestock enter into contracts with smaller producers or facility owners to raise the integrator's animals to market weight. Often, production contracts are crafted such that corporate integrators exercise primary operational control over the production practices used at their CAFOs. These types of arrangements establish integrator ownership interests in the pollution produced by the livestock operations. By not requiring integrator information, EPA will be limited in its ability to enforce the CWA against those responsible for the pollution. Further, identification of corporate integrators provides greater incentives for them to ensure proper waste management practices as it subjects them to EPA and public scrutiny.

b. EPA needs to collect information on the type and capacity of manure storage CAFOs have.

It is unclear why EPA has elected not to require information on the type and capacity of manure storage CAFOs have. Without knowing how a CAFO stores its waste, it is impossible to adequately evaluate the likelihood that it will discharge. Commonly, large-scale livestock

[13] IEPA, Illinois EPA Response to U.S. EPA Region 5's September 2010 "Initial Results of an Informal Investigation of the National Pollutant Discharge Elimination System Program for Concentrated Animal Feeding Operations in the State of Illinois," November 2010, at 3.
[14] Personal communication with IEPA staff, November 2, 2011.

operations store the waste they produce for many months in open-air lagoons or waste ponds that are designed to discharge in heavy rainfall events. Open-air waste ponds are prone to overflows as they often lack the capacity to contain the livestock waste they produce, let alone receiving rains from storm events. Further, lack of adequate storage creates a likelihood that a CAFO will dispose of its waste during weather conditions that will cause it to discharge from its land application areas.

In Illinois, CAFOs apply waste in a climate with frozen, snow-covered, or saturated ground during several months of the year - often on fields up-slope and with hydrologic connections to surface waters. If a facility has limited capacity to store its waste for less than 180 days, it will be prone to dispose of it more than twice a year, which creates an even greater chance that land application will occur during unfavorable weather conditions. This is a common occurrence in Illinois, as evidenced by the numerous discharges that occur every spring and fall. By not collecting information from CAFOs on the type and capacity of their manure storage structures, EPA is severely limiting itself in its ability to evaluate compliance with the CWA.

c. EPA should require CAFOs to report whether or not they implement nutrient management plans.

It is unclear why EPA is not requiring CAFOs to report this information. Without properly implemented nutrient management plans, concentrated amounts of nutrients run off or leach into and contaminate surface and groundwater sources. Contamination of water from excessive application of manure and wastewater to fields and cropland presents a substantial risk to the environment and public health. Further, the existence of a nutrient management plan is directly related to whether or not a CAFO that has a precipitation-related discharge from its land application area would be considered a violation of the CWA. Land application area discharges from CAFOs during certain precipitation events are considered exempt if the owner or operator applies waste in accordance with a site-specific nutrient management plan.[15] By not requiring this information, EPA will be limited in its ability to determine potential sources and risks of water pollution, as well as when certain discharges constitute violations of the CWA.

d. EPA must require CAFOs to report how much waste is transferred off-site and the quantity transferred to recipients of transferred manure.

EPA has not provided a viable reason as to why it has failed to include this requirement in the proposed Rule. Large CAFOs by nature do not have adequate land bases to absorb the excess nutrients they produce and dispose of through land application. Studies show that manure nutrients generated by large livestock facilities commonly exceed the assimilative capacity of crop and pastureland of the counties in which they are located.[16] EPA states that:

> Large operations often do not have enough land to effectively use manure as fertilizer. Furthermore, there is limited land acreage near the CAFO to effectively use the manure. This trend has coincided with increased reports of large-scale discharges from CAFOs, as

[15] 40 C.F.R. § 122.23 (e).
[16] *See,* EPA CAFO Final Rule Preamble, 40 CFR 7176 –7181 at 7180 (Feb. 12, 2003), citing USDA, Confined Animal Production and Manure Nutrients, Agriculture Information Bulletin 771; and USDA, Confined Animal Production Poses Manure Management Problems, Agricultural Outlook, September 2001.

> well as continued runoff that is contributing to a significant increase in nutrients and resulting impairment of many U.S. water bodies.[17]

Because large CAFOs often produce more livestock waste than the land in their localities can utilize, off-site transferees run the risk of over-application and mismanagement. Without proper planning and oversight, this inevitably leads to water quality degradation. To prevent continued agriculture related water quality impairment, EPA must take measures to track the off-site transfer of waste from large confinement operations. EPA should require the reporting of, not only the amount of waste transferred to another person by the facility, but also the identification of the off-site transferee who received it. This will prevent the mismanagement and over-application of waste once it leaves the site by allowing EPA to ensure that those off-site transferees are not receiving more waste than they can appropriately deal with. Furthermore, the absence of required off-site tracking of manure is an incentive for CAFO operators to get rid of their manure to avoid accountability.

III. The proposed Rule imposes insurmountable administrative burdens on EPA because it fails to require CAFOs to report adequate information.

EPA has stated that it decided to only collect information on some of the items listed in the settlement agreement because the Agency "believes it can effectively obtain site-specific answers for the remaining questions directly from the states, other federal agencies, specific CAFOs, or other sources, when necessary."[18] However, many states, such as Illinois, do not have this type of information systematically compiled as explained above. Further, the administrative burden on the Agency to collect this information from other sources or specific CAFOs would be far greater than it would be for CAFOs to provide. Responsible CAFO owners and operators should have complete information on all of the 14 items listed in the settlement agreement at their fingertips, which would allow them to fill out the requisite survey form in a matter of minutes. In comparison, it could take hours of investigation by multiple EPA staff members to gather the same types of data from multiple sources for an individual CAFO, with no guarantee of obtaining complete information. Given that EPA would have to do this for thousands of CAFOs to construct a comprehensive inventory that will allow the Agency to effectively identify polluters, the burden on the Agency far exceeds the burden on individual CAFO owners or operators to provide the same information.

a. Unless EPA requires CAFOs to provide robust information, states will also shoulder undue administrative burdens.

Further, if EPA does not require reporting of all 14 items in its final Rule, the administrative burden to collect this information will be passed onto the states that have been delegated CWA authority. As is the case in Illinois, many states are reluctant to enact more stringent requirements than federal law and are already facing resource issues. IEPA lacks sufficient resources to perform the necessary inspections and enforcement activities needed to ensure proper implementation of the NPDES program. In March of 2003, IEPA identified over $27

[17] *See*, EPA 2003 CAFO Final Rule Preamble at 7180.
[18] EPA, National Pollution Discharge Elimination System Concentrated Animal Feeding Operation Reporting Rule, 76 Fed. Reg. 65431-58, 65439 (Oct. 21, 2011) (to be codified at 40 C.F.R. pts. 9 and 122).

million in funding needed to administer the NPDES program, compared to the $13.5 million in available resources.[19]

Currently, the IEPA has only a handful of full time staff devoted to their CAFO program. These staff are responsible for conducting inspections and evaluating CAFO permit applications.[20] In addition, they are responsible for responding to citizen complaints involving CAFOs, as well as other NPDES related inspections and responding to non-CAFO complaints.[21] While efforts have been made in the past year to train and hire additional CAFO program staff, given the number of unaccounted for CAFOs in the state of Illinois, it is clear the IEPA will not have the capacity to adequately and expediently assess all CAFOs in Illinois to evaluate their compliance with the CWA unless strong federal reporting requirements are enacted.

Clearly, the burden on CAFO owners and operators to provide information on the 14 items listed in the settlement agreement is far less for individual facilities than the administrative burden that will be imposed on the IEPA to collect the same information from multiple sources on thousands of CAFOs in Illinois.

IV. All of the information collected under the CAFO Reporting Rule should be made readily available to the public.

ICCAW has serious concerns that EPA is intending to withhold certain information collected under the Rule from the public. The public's access to this information is necessary to ensure the goals of the CWA are met. The CWA requires that "public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this chapter shall be provided for, encouraged, and assisted by the Administrator and the States."[22] Failing to require CAFOs to report adequate information under the Rule and withholding such information from the public is untenable within EPA's own policy.

Public access is vital to the NPDES permitting and enforcement process. Such access is imperative because it allows people to participate in making informed decisions regarding environmental issues affecting their communities. Citizens have a right to know how CAFOs impact their environment and should have access to basic information about pollution sources to allow for involvement in the enforcement process. CAFO discharges add nutrients like phosphorous and nitrogen, pathogens, heavy metals, antibiotics, and hormones to surface waters.[23] These pollutants impair water quality and can harm public health. Citizens who live near CAFOs should be able to access the CAFO reports to review basic details as a means of self-education and self-protection.

Public access to such information is vital to the proper enforcement of the CWA. In Illinois, the IEPA, the regulatory authority with the primary responsibility to regulate pollution from CAFOs, has been severely criticized for not adequately implementing and enforcing the CWA against

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[19] Diamond, Danielle, Illinois' Failure to Regulate Concentrated Animal Feeding Operations in Accordance with the Federal Clean Water Act, 11 Drake Journal of Agricultural Law 2, Summer 2006, at 191.
[20] Illinois EPA Response to EPA Region 5's Informal Investigation, at 7.
[21] *Id.*
[22] 33 U.S.C. § 1251(e).
[23] EPA, March 2009 Enforcement Alert, *available at:* http://www.epa.gov/compliance/resources/newsletters/civil/enfalert/cafo-alert09.pdf.

them.[24] Because of the state's failures, citizens have increasingly had to respond to water quality threats on their own. Public involvement in monitoring and reporting CAFO pollution problems has been key to water protection in the state.

In order to guarantee the public's continued and rightful involvement in the regulatory process, EPA should require CAFOs to report complete information about their operations and make this information available to the public. EPA should post all CAFO reporting information on its website - including GPS coordinates, information regarding offsite transferees, etc. Otherwise, the public will be forced to seek the information via the Freedom of Information Act. This process is laborious and time consuming and places its own set of administrative burdens on regulatory agencies. Posting complete information on EPA's website will ensure that the public's participation in the regulatory process is "provided for, encouraged, and assisted by the Administrator..." in accordance with the CWA. [25]

a. Providing CAFO reporting information to the public will not pose risks to confidential business information or security.

USEPA has expressed a concern that the release of information collected under the Rule to the public would pose a risk to CAFO security, privacy, trade secrets and/or confidential business information. These concerns are not valid because none of the information proposed to be collected under the Rule or the settlement agreement would qualify as trade secrets, confidential business information, or pose a risk to security.

Pursuant to Section 308(b) of the CWA, "any records, reports, or information obtained under this section…*shall be available to the public* [emphasis added], except that upon a showing satisfactory to the Administrator by any person that… if made public would divulge methods or processes entitled to protection as trade secrets of such person…"[26] Therefore, EPA has a duty to make this information available to the public absent a showing that the information would constitute "trade secrets." Basic information being sought to be collected under the CAFO Reporting Rule, such as ownership, contact information, location, and general facility attributes, such as the number of animals housed at the operation and the type and capacity of waste storage utilized, in no way can be considered trade secrets. Illinois courts have held that even detailed information such as livestock waste facility engineering drawings, blueprints, and design plans are not considered trade secrets or commercial information.[27]

Concerns about security risks are also unfounded. An Illinois court recently found that the release of detailed design and construction drawings and blueprints of a proposed livestock facility to the public would not pose "a risk to security" as claimed by the CAFO owner/operator.[28] Clearly, basic location and ownership information and data that generally

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[24] *See,* EPA, Informal Investigation of the IEPA NPDES CAFO Program.
[25] 33 U.S.C. § 1251(e).
[26] 33 U.S.C. § 1318(b),
[27] *See e.g., Colleran v. Illinois Department Of Agriculture*, 2008 MR 14, Jo Daviess Co. (15th Cir., May 30 2008), *see also Ramona Cook v. Illinois Department of Agriculture,* 2011 MR 85, McDonough Co. (9th Cir., Oct. 14 2011), holding that livestock management facility construction blueprints and engineering design drawings were not proprietary or trade secrets such that they would be exempt from Illinois' Freedom of Information Act (5 ILCS 140/1 et seq.), and nor would their public disclosure pose a "threat to security."
[28] *Id.* Cook v. IDOA.

describe the type of pollution controls a CAFO employs would not pose a risk to security if made publicly available.

It is unclear why EPA would question making any of the information collected from CAFOs through the Reporting Rule publicly available based on claims of confidential business information or security risks. The same types of information are made available online by EPA for other point sources, such as food processing facilities, water treatment plants, etc. It makes no sense to afford CAFOs special treatment based on their unfounded claims about these risks.

V. In order to carry out the objectives of the CWA, EPA must collect information directly from CAFOs in accordance with proposed Option 1.

USEPA is proposing two options regarding which CAFOs will be required to submit information. Option 1 would require all CAFOs to complete a simple survey providing basic information about their facilities to submit to EPA. Option 2 would only require the collection of information from CAFOs in impaired watersheds. EPA is also considering collecting data through alternative approaches. Option 1 is the only viable proposal.

a. EPA's proposed Option 2 will not advance the goals of the CWA.

EPA's proposed Option 2 would focus on the collection of information only from CAFOs located in impaired watersheds. Option 2 is inadequate because it would leave out a large universe of CAFOs, including those that pose threats to high quality watersheds. Beyond this, information on impaired watersheds is limited and outdated. Focusing only on impaired watersheds, EPA will unnecessarily neglect certain rivers, streams, and watersheds that may be severely impacted by CAFO pollution but that have yet to be effectively monitored by EPA or the states.

As EPA explains, state water quality reports are not comprehensive, and "many water bodies have not been assessed or the impairment cause has not been identified."[29] Further, CAFO impacts to waterways may not be fully accounted for because some states have not established water quality standards for all of the pollutants they produce and many states have not set nutrient standards.[30] If EPA elects Option 2 and does not conduct a nation-wide inventory, many areas being impacted by CAFO pollution will remain unaddressed.

b. Collection of data through EPA's proposed alternative approaches is not feasible.

EPA is also proposing three alternative approaches to meet the objectives of the Rule. These approaches involve the collection of information by EPA from existing sources, such as state licensing and registration programs, USDA census data, satellite imagery, aerial photographs, etc. These alternative approaches are problematic because none of the sources will provide EPA with the complete information it needs. Arguably, this information has been available to EPA and the Agency has not been able to effectively utilize it for its CWA purposes. Further, the administrative burden that would be imposed on EPA to collect information from the various sources would be so great that it would be nearly impossible to get an accurate and comprehensive picture of CAFO water pollution impacts to waters of the United States. As the

[29] EPA, Proposed NPDES CAFO Reporting Rule, at 65442.
[30] *Id.*

Government Accountability Office notes, "no federal agency collects consistent, reliable data on CAFOs…" and existing data is "inconsistent and inaccurate" and "does not provide necessary information on the characteristics of these CAFOs."[31]

Clearly, Option 1 is the only proposal put forth by EPA that will accomplish the objectives of the CWA.

Thank you for the opportunity to comment.

Respectfully submitted:

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[31] Government Accountability Office, Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern, GAO-08-944, September 2008, at 1.

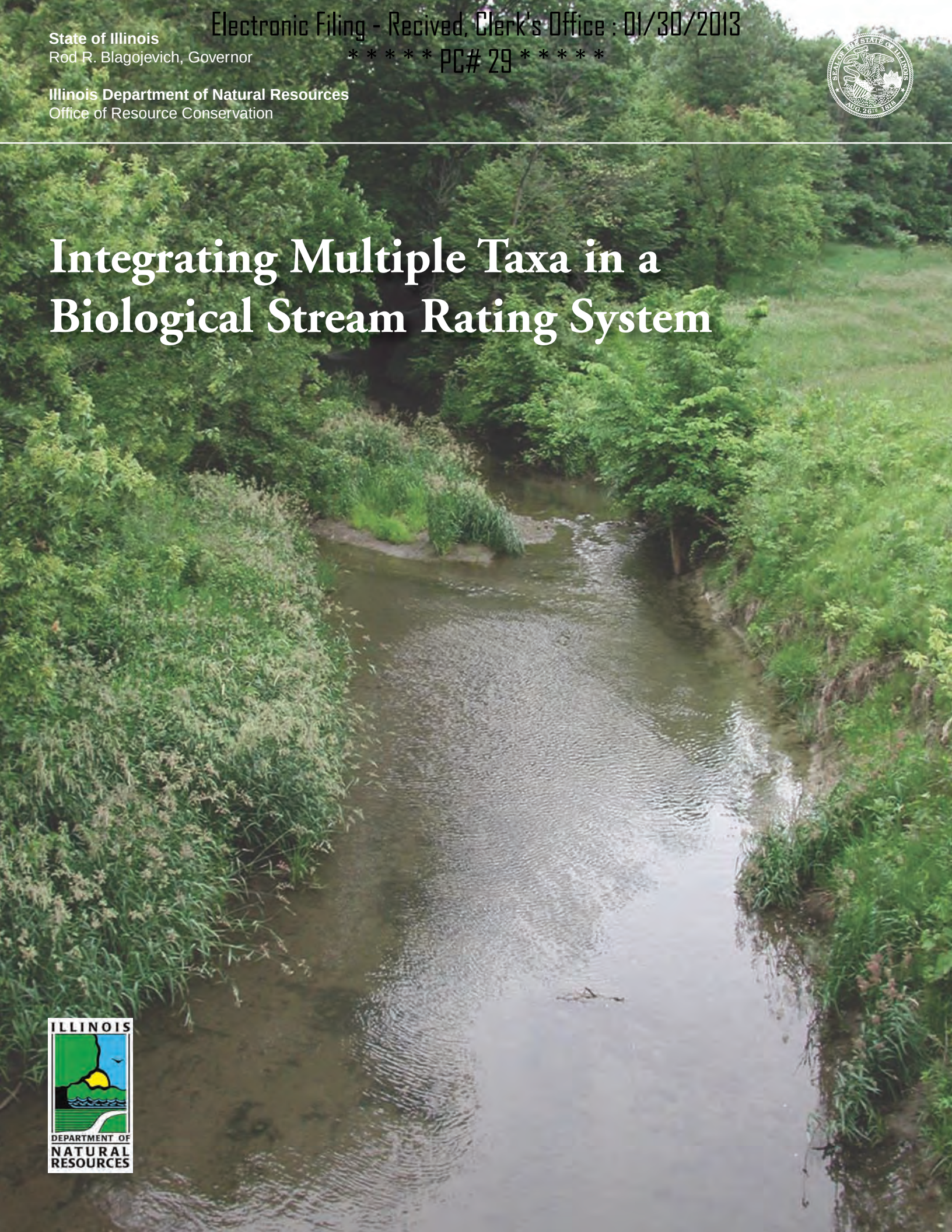
Attachment 3:

Illinois Department of Natural Resources:
"Integrating Multiple Taxa in a Biological Stream Rating System"

State of Illinois
Rod R. Blagojevich, Governor

Illinois Department of Natural Resources
Office of Resource Conservation

Integrating Multiple Taxa in a Biological Stream Rating System



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cover - Kevin Cummings - Bean Creek - Salt Fork
page 2 - Kevin Cummings - Hickory Creek
page 6 - Ed Dewalt - *Hydroperla fugitans* (Plecoptera: Perlodidae) the Springfly
page 6 - Kevin Cummings - Threatened mussels at Salt Fork
page 7 - Kevin Cummings - Mussel sampling on the North Fork Vermilion River
page 11 - Chris Taylor - *Orconectes propinquus*
page 15 - Kevin Cummings - Asian clams at Lone Tree Creek
page 21 - Kevin Cummings - Pink Heelsplitter from the Sangamon River

Acknowledgments

This work would not have been possible without the previous efforts of the Biological Stream Characterization Work Group that instituted a statewide stream rating system in the late 1980s and the Illinois Natural History Survey that developed the initial Biologically Significant Streams listing. We would like to thank all the members of our Biologically Significant Streams work group for their efforts at enhancing this project. Special thanks to Kevin Cummings, Ed DeWalt, Mark Joseph, Christine Mayer, Chris Phillips, Bob Schanzle, Bob Szafoni, Chris Taylor, John Wilker, and the IDNR stream specialists for providing access to data from streams throughout Illinois. This report is based largely on work done by Leslie Bol and Leon Hinz of the Illinois Natural History Survey, and Ann Marie Holtrop of the IDNR. Their work was funded by IDNR through the Illinois State Wildlife Grant Program (T-20-P-001). ●

Preface

Updated stream ratings are provided in this report under authority of state law (see 515 ILCS 5-5 and 520 ILCS 5/2.1). This state law provides the Illinois Department of Natural Resources (IDNR) with ownership of the wildlife and aquatic resources residing within the borders of the State of Illinois. The IDNR is designated as the agency of state government charged with the regulation, protection, and preservation of those natural resources. Tools such as the stream ratings provided in this report are used by IDNR as the basis for field program implementation for resource protection. For over twenty years, resource mangers in Illinois have used stream biological ratings as a vehicle for the interpretation, assessment, and communication of aquatic resource values. The first stream ratings, published in 1989, were based on a five-tiered classification system predicted largely on the type and condition of the fishery resource. In July 2005, the State of Illinois submitted a Comprehensive Wildlife Conservation Plan to the U. S. Fish and Wildlife Service as part of a Congressional mandate to be eligible for future federal funding. The plan was accepted, renamed the Illinois Wildlife Action Plan, and became the strategic document guiding protection and conservation efforts throughout the state. As the name implies, the Illinois Wildlife Action Plan outlines a plan of action to address the particular needs of wildlife that are declining and presents a targeted approach to habitat enhancement and conservation. The Wildlife Action Plan broadly addresses all types of wildlife including fish, mussels, amphibians, and reptiles. To help establish baseline conditions against which change promoted by the Illinois Wildlife Action Plan could be measured and understood, the following report describes in detail a stream rating process based on multiple aquatic taxonomic groups. Users desiring access to the most current ratings and additional location information are encouraged to search http://www.dnr.state.il.us/orc/BioStrmRatings/. The ratings will provide the Illinois Department of Natural Resources with a mechanism for identifying high-quality examples of all stream communities and will guide management and restoration activities throughout the state.

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Introduction

Comprehensive statewide biological, chemical, and physical information associated with streams in Illinois has been routinely collected since 1980 through a partnership between the Illinois Department of Natural Resources (IDNR) and the Illinois Environmental Protection Agency (IEPA; Bertrand et al. 1996). This partnership was established in order to assess fish and macroinvertebrate communities, water quality, and habitat throughout major basins of Illinois. In 1984, a Biological Stream Characterization (BSC) Work Group was convened to create a mechanism for interpreting data collected as part of the interagency Basin Survey Program, and "to provide managers an overall prospective of the state's stream resources" (Hite and Bertrand 1989). The BSC Work Group developed stream ratings using letter grades "A" through "E", thereby establishing a means of communicating the quality of biological resources in streams to diverse stakeholders.

At the time the BSC Work Group began, the fish-based Index of Biotic Integrity (IBI) was recently developed, and it became the predominant stream integrity indicator used for rating streams (Hite and Bertrand 1989). In recognition of the need to also protect other stream-dependent organisms in the state, the Illinois Natural History Survey (INHS) developed a list of Biologically Significant Streams (BSS) that incorporated data on mussel communities and rare species (endangered, threatened, watch list) of crustaceans, fish, mussels, and aquatic plants in addition to stream segments rated as "A" by the initial BSC (Page et al. 1992). The goal of the BSS project was to protect 100% of the stream-dependent biodiversity, thus a stream with characteristics that met any one of the established criteria could achieve status as a BSS (Page et al. 1992).

Despite the lack of regular updates, the BSC and BSS processes generated products that are still used extensively by diverse stakeholders including state and federal agencies, local watershed groups, consultants, environmental interest groups, and municipalities.

In 2006, the IDNR initiated an effort to combine and update the previous stream rating efforts into a single rating. The purpose behind the project was not only to update outdated information (i.e., the existing ratings were based on data at least 15 years old) but to create a rating system that would help resource mangers determine efficacy in implementing the aquatic goals of the Illinois Wildlife Action Plan (State of Illinois 2005). To be most useful in evaluating and guiding implementation of the Wildlife Action Plan, IDNR sought a single rating for stream segments that represented multiple signals of stream condition. This intent was similar to the "overall prospective" identified by Hite and Bertrand (1989). Although the main purpose behind stream ratings has changed since the creation of BSC and BSS, several other objectives for the development and use of ratings remain. These include:

- Facilitate planning and prudent allocation of State resources in IDNR monitoring activities;
- Inventory and identify the nature, extent, and distribution of Illinois stream resources;
- Establish a common vehicle for the interpretation, assessment, and communication of aquatic resource values;
- Identify stream segments exhibiting a high potential for resource management or restoration activities;

- Focus greater emphasis on the importance of uncommon aquatic biotic resources and an awareness of where these resources exist.

Since BSC and BSS were developed, the quantity and quality of aquatic data and assessment tools has increased. For example, multi-metric indices have been developed for benthic macroinvertebrates (Tetra Tech, Inc. 2007) and mussels (Szafoni 2002), and revised for fish (Smogor 2000). Further, the Basin Survey Program, which assesses fish and macroinvertebrate communities, has continued. These available indices and data presented new opportunities to create a rating that reflects how different taxonomic groups can respond dissimilarly to shared stream conditions because of differences in life-history, mobility, and sensitivities to stressors (Paller 2001). Specifically in this project we used fish, macroinvertebrate, and mussel information because these taxa reflect steam conditions at different spatial and temporal scales (Diamond and Serveiss 2001, Freund and Petty 2007, Kilgour and Barton 1999, Lammert and Allan 1999). For instance, due to their limited mobility, typically shorter life spans, and association with stream substrate, macroinvertebrates may be indicators of local and more recent stream conditions (Freund and Petty 2007), whereas fish may be better indicators of regional conditions because they have greater movement capabilities and longer life cycles. Mussels, due to their limited dispersal as adults, may also indicate local conditions, but due to longer life spans may reflect historic stressors related to specific areas (Diamond and Serveiss 2001). By incorporating various taxonomic groups and averaging standardized taxonomic scores, we generated an overall rating for stream segments that is representative of multiple signals of stream conditions. This report describes an approach that results in assigning up to three designations for a stream segment, which are a diversity rating, integrity rating, and identification as a biologically significant stream. ●

General Approach for Diversity and Integrity Ratings

Several purposes of the previous BSC and BSS processes overlapped between the two initiatives. Both had objectives to identify the extent of Illinois stream resources, to identify stream segments of exceptional quality, and to focus protection efforts toward uncommon resources or biologically significant streams (Bertrand et al. 1996, Page et al. 1992). However, the two initiatives differed in their overall intent to rate a stream's biological diversity (Page et al. 1992) or biological integrity (Bertrand et al. 1996; Hite and Bertrand 1989). For the purposes of implementing Illinois' Wildlife Action Plan, IDNR sought a rating system that would include both diversity and integrity measures. Although the approach to obtain the diversity and integrity ratings is similar, we have not directly combined the two ratings for an overall rating. Diversity and integrity ratings were kept separate because it is possible to have highly intact communities that are not biologically very diverse. For instance, species richness expectations for small or cold-water streams are expected to be low compared with larger or warmer streams. Therefore, it is possible to have a small stream that would rate high for integrity but low for diversity. Additionally, keeping the two ratings separate enables stakeholders with different purposes to consider the rating that is most applicable to their needs. The letter ratings of A-E were maintained for both the diversity and integrity ratings as these designations were used in the previous BSC revision.

Given the change in focus and use for this project from previous stream ratings, we considered several aspects of the previous rating processes and modified the process accordingly. Because multiple data sources are used to generate a rating, there was a need to standardize data from different sources in an effort to give equal weight to all communities of organisms found in streams if adequate and comparable sampling had occurred. Second, we sought a data driven and reproducible process that did not include narrative information (see Hite and Bertrand 1989 and Bertrand et al. 1996 for an explanation of how narrative information was used previously). Third, we envisioned a product that could be easily updated as new information became available.

The general approach for obtaining a diversity or integrity rating is a six step process:

1. Select data for inclusion in the rating.
2. Convert raw data to a class score.
3. Standardize classes into a proportional score (P score).
4. Average the proportional scores within a given taxonomic group to obtain a single taxonomic score (T score).
5. Average proportional and/or taxonomic score for multiple sites on a valley segment.
6. Determine the final diversity and/or integrity rating for a valley segment.

We considered all the information that contributed to both integrity and diversity ratings in order to identify Biologically Significant Streams (BSS). Similar to the initial BSS effort, we incorporated multiple datasets and identified streams based on available taxonomic groups rather than relying on the fish data as the primary stream integrity indicator. However, unlike the additive approach of the original BSS that identified all reaches with appropriately high

threatened and endangered species presence regardless of what other available information may have indicated, the current process uses a holistic approach that combines data sources to determine if the biologically significant stream designation is appropriate.

Fish, mussel, macroinvertebrate, crayfish, and threatened and endangered species data collected by various state agencies were used for stream ratings. All datasets were overlaid on the 1:100,000 – scale, National Hydrography Dataset (NHD; USGS 2000) that was refined for a previous project (Holtrop and Dolan 2003). Point locations of data that were greater than 60m from the nearest digitized stream line were visually inspected using an overlay of aerial images to determine if the point was associated with a large river or a small stream that was not digitized. Points that were associated with large rivers and undigitized streams were separated into a different file and omitted from further analysis. Points that did not fall into either of these categories were further investigated to determine if there was an error with the spatial coordinates. Errors were remedied where possible, and points that could not be corrected and still fell greater than 60m from the nearest stream were omitted.

Point data or sampling sites for the final ratings were summarized according to valley segment. Valley segments are aggregations of linearly adjacent, physically similar stream reaches (Seelbach et al. 1997). Physical characteristics used to define valley segments were related to stream size (drainage area), surficial geology (bedrock, coarse substrates), discharge (flow yield), and gradient. Valley segments were independently derived prior to this project using a spatially-constrained clustering method based on the cluster affinity search technique (Brenden et al. 2008). Valley segment numbers were assigned to datasets through a spatial join in ArcMap 9.2. Datasets were then associated with each other for calculation of the final rating according to valley segment number in a query performed in Microsoft Office Access 2003.

Diversity Ratings

Background

Diversity simply defined is the number of different kinds of things (Angermeier and Karr 1994) or the variety of life and its processes (Hughes and Noss 1992). Although diversity can be represented mathematically using summary indices or a simple species number, we chose to consider it more broadly as the variety of taxa within several important aquatic groups (e.g., mussels, fish, macroinvertebrates, and crayfish). In December 2006, project stakeholders met and discussed the appropriateness of available datasets for inclusion in the diversity analysis. We considered data collected within the past decade (1997-2006) that were collected as part of IDNR, IEPA, or INHS monitoring programs. We limited data to these institutions to ensure that collection methods were standardized, repeatable, and will be continued in the future so that data will be available for revisions of these ratings.

Approach

The general approach for obtaining a diversity rating is a six step process.

Step 1. *Select data for inclusion into the rating.*

We considered only data that were collected within the past decade. However, if a single site had more than one sample from the past decade, we used the sample with the highest richness for inclusion in the final rating calculation. We used this approach rather than taking the most recent sample or an average of the samples because the highest richness represents a conservative estimate of the biological potential for the site and this approach accounts for variation that may occur with sampling. Additionally, we did not average the data from multiple samples since the average could represent a condition that had not been found at the site. The following data were used in the final diversity ratings.

Fish – Fish data from community samples taken as part of cooperative basin surveys and other department monitoring were provided by the IDNR. These data were reviewed by regional IDNR stream biologists for verification that the samples were representative of community samples with adequate sampling efficiency. The species

richness metric was retrieved from the Index of Biotic Integrity (IBI; Smogor 2000) summaries and was used as a component of the diversity rating. A total of 731 sites were used in the diversity score analysis (Table 1). There were fewer sites with fish species richness than fish IBI scores since the individual metrics scores used to calculate the fish IBI were not always available.

Table 1. The number of sites from each dataset used to calculate diversity ratings.

Potential Data Source	Number of Sites
Fish Species Richness	731
Macroinvertebrate Taxa Richness	452
CTAP EPT Species Richness	179
S1S2 EPT Species Richness	104
Mussel Species Richness	596
Crayfish Species Richness	18
Threatened and Endangered Species Richness	413
Total	2493

Aquatic Macroinvertebrates – Data for aquatic macroinvertebrates were compiled from three different entities.

Macroinvertebrate Taxa Richness

First, benthic macroinvertebrate data were compiled from the IEPA in Springfield. These data were collected following protocols established for use in the Stream Condition Index (Tetra Tech, Inc. 2007), but referred to as the Macroinvertebrate Index of Biotic Integrity (MIBI) in this report. The taxa richness metric was retrieved from the MIBI, and a total of 452 sites were used for the final diversity score analysis (Table 1).

Critical Trends Assessment Program (CTAP)

Second, Ephemeroptera (mayflies), Plecoptera (stoneflies), and Tricoptera (caddis flies; EPT) data that were collected since 1997 as part of CTAP (http://ctap.inhs.uiuc.edu/index.asp) were obtained. Although the MIBI contains an EPT richness metric, the CTAP data were used because these data were collected in the spring of the year prior to the emergence of many of these species and also typically on smaller streams than those included in the IEPA sampling. A total of 179 sites were used for the final diversity score analysis (Table 1).

S1S2 EPT

Third, we included information on sensitive Ephemeroptera, Plecoptera, and Tricoptera data provided by Dr. Ed DeWalt (INHS). These data were included because currently no EPT species are listed as endangered or threatened by the Illinois Endangered Species Protection Act (http://dnr.state.il.us/espb/datelist.htm), although some species within these orders have been identified as critically imperiled (S1) or imperiled (S2) at the state level by an INHS entomologist (DeWalt et al. 2005, Favret and DeWalt 2002). S1S2 refers to conservation status ranks used by NatureServe (http://www.natureserve.org/). A total of 104 sites were used for the final diversity score analysis (Table 1).

Mussels – Mussel data were obtained from the INHS mollusk collections database (http://www.inhs.uiuc.edu/cbd/collections/mollusk/molluskintro.html) and IDNR. Records associated with freshwater snails, fingernail clams, zebra mussels, and Asian clams were not included, as well as any records not associated with stream habitat. In order to query data that were representative of community samples, we restricted our data to a list of collectors' names obtained from Kevin Cummings, the INHS malacologist and mussel database manager. A total of 596 sites were used for the final diversity score analysis (Table 1).

Crayfish – Native crayfish data were obtained from the INHS crustacean

collection database (http://www.inhs.uiuc.edu/cbd/collections/crustacean/crustaceanintro.html). Despite the lack of systematically collected crayfish data across the state, we included crayfish in a limited capacity in the final diversity ratings because they are abundant in Illinois streams and we anticipate that additional collections will be available for future updates of stream ratings. A total of 18 sites were used for the final diversity score analysis (Table 1).

Threatened and Endangered Species – Data on threatened and endangered (T&E) fish, mussel, crayfish, amphibian, and plant species (see Appendix A for species lists) were extracted from the Biotics Database maintained by the IDNR Office of Resource Conservation, Division of Natural Heritage. A total of 413 sites with T&E species were used for the final diversity score analysis (Table 1).

Step 2. *Convert raw data to a class score.*

One of the objectives for this project was to give equal weight to all communities of organisms found in streams if adequate and comparable sampling had occurred. To do this, we developed classes for each dataset used in the analysis in an attempt to interpret raw data from different sources and classify it similarly. Classes were independently developed for each dataset using each sample collection as an independent record rather than pooling samples from a single site. For example, if one site had multiple samples collected between 1997-2006, then each sample was treated as an independent record for the purpose of creating the class scores. Therefore, richness expectations were based on the number of species you would expect to find in a single sampling event. Once the classes were established, only the sample that had the highest richness from each site was used to calculate the final diversity rating.

Fish Species Richness — The fish species richness metric was retrieved from the Index of Biotic Integrity (IBI; Smogor 2000) summaries and was used as a component of the diversity rating. We used the classes developed for IBI because they accounted for variation in fish species

richness expectations across different sized streams, slope, and region. We maintained these classes with a single modification. In the IBI, fish richness metric scores range from 0-6. Because the "0" does not represent a true absence of fish, we added "1" to each class thereby resulting in class scores from 1-7.

Macroinvertebrate Taxa Richness — The MIBI did not have classes associated with individual metrics; however the availability of least-disturbed samples provided the opportunity to define classes for macroinvertebrate taxa richness by using the same approach that was used to define classes for individual metrics within the fish IBI (Smogor 2000). The top class for taxa richness was set at the 75th percentile of reference sites. Using this approach, taxa richness values for MIBI ranged from 0 to 35+ and were placed into seven classes (Table 2). Data were not further stratified by stream size or location because previous analysis determined that neither affected taxa richness expectations (Tetra Tech, Inc. 2007).

Table 2. Number of taxa corresponding to each class in the Macro-invertebrate Index of Biotic Integrity (Tetra Tech, Inc. 2007).

Class Score	Taxa Richness
7	35+
6	31 - 34
5	25 - 30
4	19 - 24
3	13 - 18
2	7 - 12
1	0 - 6

CTAP EPT Species Richness — In order to maintain similarity across data sources, we used the 90th percentile as the boundary for the highest class for datasets that were not developed with a reference site approach (i.e., mussels, CTAP EPT macroinvertebrates, S1S2 macroinvertebrates, crayfish, and threatened and endangered species). Our rationale was that by raising the standard for the top class for these datasets to at least the 90th percentile, the highest class would be similarly restrictive as the datasets that did have reference site data available. Using the 90th percentile as the cut for the top class, three classes were created (Table 3).

Table 3. Number of species corresponding to the three classes developed for the Critical Trend Assessment Program's Ephemeroptera, Plecoptera, and Tricoptera data. The species from the three orders are considered together.

Class	Percentile	Number of Species
1	<50th	1 - 8
2	50th - 89th	9 - 18
3	90th+	19+

Mussel Species Richness — A mussel species richness of ten species or greater was previously used to identify BSS (Page et al. 1992) and was also used as the threshold for defining the highest classification for the species richness factor in the Illinois Mussel Classification Index (Szafoni 2002; MCI). However, we investigated the relationship among mussel species richness across different sized streams defined by steam link (Shreve 1967) within different drainages and subsequently adopted new class scores based on our analysis. Three classes were developed for mussel species richness expectations for each of the major drainages based on the percentiles within three stream size groupings of the tributary streams and the mainstem (Table 4). Class one consisted of samples that were below average richness within the drainage (0-49th percentile), class two were above average samples (50-89th), and class three were exceptionally high scoring samples (90th percentile and above (Table 4)).

Bonus Points –The final diversity rating also integrates information about taxa that

Table 4. Class scores for mussel species richness values based on expectations according to drainage and stream size. Stream size is defined by link number, which is the number of first order streams based on the 1:100,000 National Hydrography Dataset (NHD) upstream of a given stream reach. Link codes refer to groupings of link numbers.

Stream Size	Drainage	Class 1 (<50th percentile)	Class 2 (50th - 90th percentille)	Class 3 (90th percentile +)
Small (Link code 1)	Illinois	<3	3 - 7	8+
	Mississippli	<2	2 - 5	6+
	Ohio	1	2	3+
	Wabash	<3	3 - 8	9+
Medium (Link code 2 - 3)	Illinois	<5	5 - 11	12+
	Mississippli	<5	5 - 10	11+
	Ohio	<2	2 - 3	4+
	Wabash	<5	2 - 10	11+
Large (Link code 4 - 6)	Illinois	<5	5 - 11	12+
	Mississippli	<7	5 - 11	12+
	Ohio	<2	2 - 5	6+
	Wabash	<6	6 - 13	14+
Mainstem (Link code 7)	Illinois	<9	9 - 10	11+
	Mississippli	<15	15 - 20	21+
	Ohio	<6	6 - 13	14+
	Wabash	<3	3 - 9	10+

were deemed important due to their rarity. The S1S2 EPT, Crayfish, and T&E datasets had a limited range of data and subsequently were used differently in the final ratings than other fish, macroinvertebrate, and mussel data described previously. The rationale for this is described in steps 4 and 6 below. Class scores for these three datasets were based on percentiles, but were adjusted in weight based on how these data were added to the diversity rating.

Step 3. *Standardize classes into a proportional score (P score).*

All class scores range from "1" to a greater number with the greatest number always representing the highest class. In this step, we divided the assigned class score by the total number of classes available to obtain a proportional score (P score), which has a maximum of 1. For example, a site that had 26 macroinvertebrate taxa falls in class 5, which equates to a P score of 5/7 (0.714). Proportional scores were used to standardize differing numbers of classes among variables.

Step 4. *Average the proportional scores for the three different macroinvertebrate datasets in order to obtain a single taxonomic score (T score).*

When multiple datasets (i.e., taxa richness from MIBI, EPT richness from CTAP, and S1S2 EPT species) were available for macroinvertebrates, the average of the proportional scores was used to determine the taxonomic score (i.e., macroinvertebrate taxonomic score). Creating a taxonomic score allowed us to include information derived from separate assessments into a combined signal for macroinvertebrates. However, we averaged all available macroinvertebrate information into a

taxonomic score rather than keeping the datasets separate and averaging them all into a final score in order to give equal weight to fish, macroinvertebrates, and mussels in the final diversity rating.

S1S2 EPT data were added to the macroinvertebrate taxonomic score as bonus point data rather than averaged into the taxa score in order to ensure that the presence of these sensitive taxa always improved a stream rating. The maximum number of bonus points was awarded to samples with three or more species as this corresponds to the 90th percentile for the number of species found per sample. Samples with 1-2 species were awarded half the maximum. The diversity score prior to adding bonus points is based on the average of the macroinvertebrate taxonomic score, the fish proportional score and the mussel proportional score. Since the macroinvertebrate taxonomic score is potentially 1/3 of the overall diversity score, and S1S2 EPT potentially contribute 1/3 to the macroinvertebrate taxonomic score, the S1S2 EPT data potentially contribute 1/9th (0.11) of the pre-bonus points diversity score. We therefore, assigned 0.11 for samples with 3+ and 0.055 for 1-2 species.

Some valley segments had S1S2 EPT data available but lacked other macroinvertebrate data. In these cases we added the bonus points after the fish and mussel taxonomic scores had been averaged (Step 5). However, since the data were added at a different point in the process, the bonus points were divided by three since they would contribute to a third of the diversity score prior to the T&E and Crayfish bonus points being added. Therefore, for valley segments without other macroinvertebrate data, 0.037 was added when there were 3+ species and 0.018 for samples with 1-2 species.

Step 5. *Average proportional and/or taxonomic score for multiple sites on a valley segment.*

When multiple sites were associated with a particular valley segment within a dataset, the average of these proportional or taxonomic (for macroinvertebrates) scores was used to calculate the final diversity score. An average from the different sites was used rather than considering the highest proportional score from the valley segment since conditions within the stream segment may vary between sites and an average for the whole valley segment was a better representation than the signal from a single site.

Step 6. *Determine the final diversity rating for a valley segment.*

The final diversity score is based on five potential data sources: average of the fish proportional scores available for the valley segment, average of the mussel proportional scores available for the valley segment, the average macroinvertebrate taxonomic scores, as well as crayfish and T&E species richness.

Threatened and Endangered Species (T&E)

Aquatic T&E data were added to the diversity score after the fish proportional scores, mussel proportional scores, and macroinvertebrate taxonomic scores have been averaged. Because T&E species were one of five potential values contributing to a final diversity rating, the 95th percentile of T&E values (i.e., 2+ species) was awarded 0.2 (1/5) bonus points. Sites having one T&E species were awarded 0.1 bonus points. The maximum points T&E species could add to a final diversity score was 0.2, even if more than one sample for a given valley segment had 2+ T&E species.

Crayfish

Similarly to T&E species, crayfish are added as bonus points after available fish, macroinvertebrate, and mussel information had been averaged. However, bonus points for crayfish were only awarded to samples that had three or more species. Three or more species represented the 95th percentile of available data and resulted in 0.1 bonus points.

The final diversity score for a valley segment was calculated as:

Diversity Score = average (average fish species richness P scores + average mussel species P scores + average macroinvertebrate T Scores) + threatened and endangered species bonus points + crayfish bonus points, where P score = proportional score and T score = taxonomic score.

The cut-offs for the final diversity letter ratings were determined by visually inspecting the distribution of the diversity scores (Figure 1). We also attempted to have a similar percentage of valley segments within each letter category as the previous BSC projects. A total of 1127 valley segments were assigned a diversity rating of A-E (Figure 2). This represents 3% of the total 38046 valley segments that exist for the state of Illinois. Of the valley segments that were rated, the percentage with the assignment of the ratings A-E is 13, 22, 38, 25 and 1 respectively. While this procedure has been developed for assigning ratings using multiple datasets, approximately one half of the total valley segments that were rated had data available from only one dataset (Table 5).

Table 5. Number of datasets contributing to final diversity ratings.

Datasets	Total Valley Segments
1	565
2	370
3	134
4	44
5	11
6	3
Total	1127

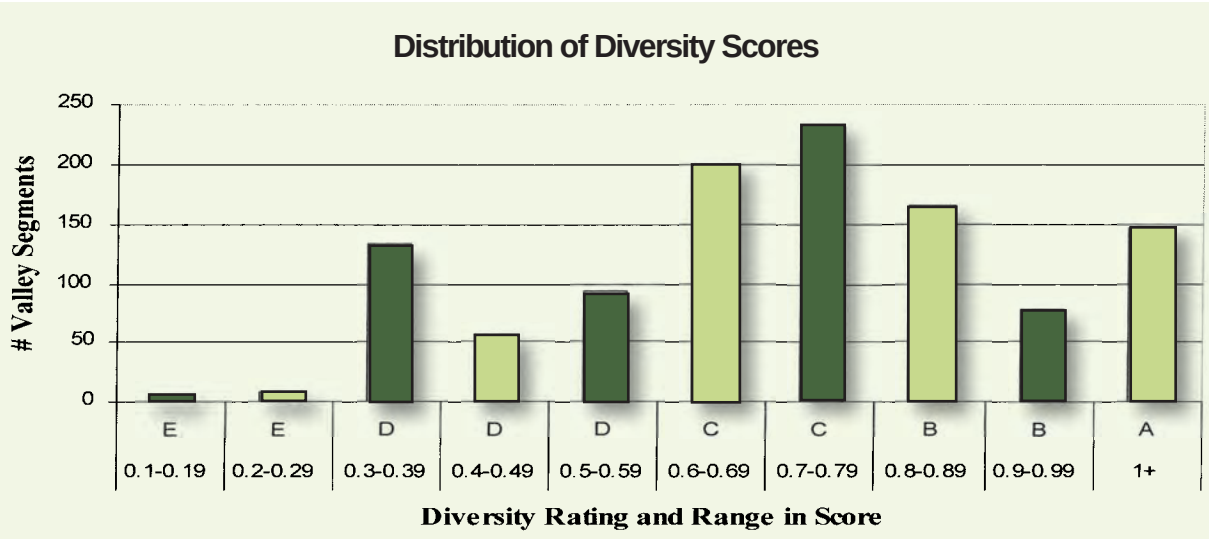

Figure 1. Distribution of diversity scores and corresponding letter rating. The percentage of valley segments with diversity ratings of A-E is 13, 22, 38, 25, and 1 respectively.

Examples of Diversity Ratings

To further illustrate the diversity process, we present several examples (Table 6). In the first example, only one dataset is associated with the valley segment. The fish species richness is 15, which corresponds to a class score of 5. To obtain the proportional score, 5 is divided by the total number of classes, which is 7. Since there are no other datasets to average with the fish species richness, the final diversity score is the same as the fish proportional score. A final diversity score of 0.714 equates to a letter rating of C.

In the second example, data are available from three taxonomic groups. The fish species richness is 22, which equates to a class score of 6 and a proportional score of 0.857. The mussel species richness is 6, which equates to a class score of 2 and a proportional score of 0.667. The macroinvertebrate taxa richness is 42, which equates to a class score of 7 and a proportional score of 1. The diversity score is determined by averaging these three proportional scores. The final score of 0.841 corresponds to a letter rating of C.

The third example has two sets of macroinvertebrate data as well as fish and mussel data. The fish species richness is 10, equating to a class score of 3 and a proportional score of 0.429. The mussel species richness is 1, equating to a class

Table 6. Examples of calculating diversity scores.

	Example with single dataset	Example with three taxonomic groups	Example with two macroinvertebrate datasets	Example with S1S2 EPT bonus points	Example with two mussel sites and threatened and endangered species bonus points
Valley Segment	21679	39073	37913	3557	44269
Fish Species Richness	15	22	10		33
Fish species richness class score	5	6	3		7
Fish proportional score	0.714 (5/7)	0.857 (6/7)	0.429 (3/7)		1 (7/7)
Mussel species richness		6	1		1 and 13
Mussel species richness class score		2	1		1 and 3
Mussel proportional score		0.667 (2/3)	0.333 (1/3)		0.667 (average of 0.33 and 1)
Macroinvertebrate taxa richness		42	31		40
Macroinvertebrate taxa richness class score		7	6		7
Macroinvertebrate taxa richness proportional score		1 (7/7)	0.857 (6/7)		1 (7/7)
CTAP EPT species richness			17	20	
CTAP EPT species richness class score			2	3	
CTAP EPT species richness proportional score			0.667 (2/3)	1 (3/3)	
S1S2 EPT specie richness				1	
S1S2 EPT specie richness bonus points				0.055	
Macroinvertebrate taxonomic score		1	0.76	1.055	1
Pre-bonus points Diversity score	0.714	0.841	0.51	1.055	0.889
Crayfish species richness					
Crayfish species richness bonus points					
Threatened and Endangered species richness					2
Threatened and Endangered species richness bonus points					0.2
Final Diversity Score	0.714	0.841	0.51	1.055	1.089
Diversity Rating	C	B	D	A	A

score of 1 and a proportional score of 0.333. The macroinvertebrate taxa richness is 31 equating to a class score of 6 and a proportional score of 0.857. The CTAP EPT species richness is 17 equating to a class score of 2 and a proportional score of 0.667. Before the diversity score can be calculated, available macroinvertebrate data are combined into a taxonomic score. The macroinvertebrate taxonomic score is determined by averaging the macroinvertebrate taxa richness proportional score and the CTAP EPT proportional score. The final diversity score (0.51 with a diversity rating of D) is calculated by averaging the fish and mussel proportional scores and the macroinvertebrate taxonomic score.

The fourth example also has two datasets available for macroinvertebrates. However, one of the datasets is S1S2 EPT bonus data. The CTAP ETP species richness is 20, which represents a class score of 3 and a proportional score of 1. There is one S1S2 EPT species associated with the valley segment that is awarded 0.055 bonus points. The macroinvertebrate taxonomic score is therefore the CTAP EPT proportional score plus the S1S2 EPT bonus points. Since no other data are available, the final score is equal to the macroinvertebrate taxonomic score (1.055 with a diversity rating of A).

The final example illustrates the procedure for dealing with valley segments that may have more than one sampling site associated with them and for calculating a final diversity score using threatened and endangered species bonus points. The fish species richness is 33 equaling a class/metric score of 7 and a proportional score of 1. There are two mussel sites associated with the valley segment with species richness of 1 and 13. These correspond to class/metric scores of 1 and 3 respectively. To determine the final proportional score for the mussels, the average is taken of the two site proportional scores. The fish and mussel proportional scores are then averaged before bonus points are awarded. Two threatened and endangered species are associated with the valley segment equating to 0.2 bonus points. Once these are added to the pre-bonus point diversity score of 0.889, the final diversity score is 1.089, which equals an A rating. ●

Map of Diversity Ratings

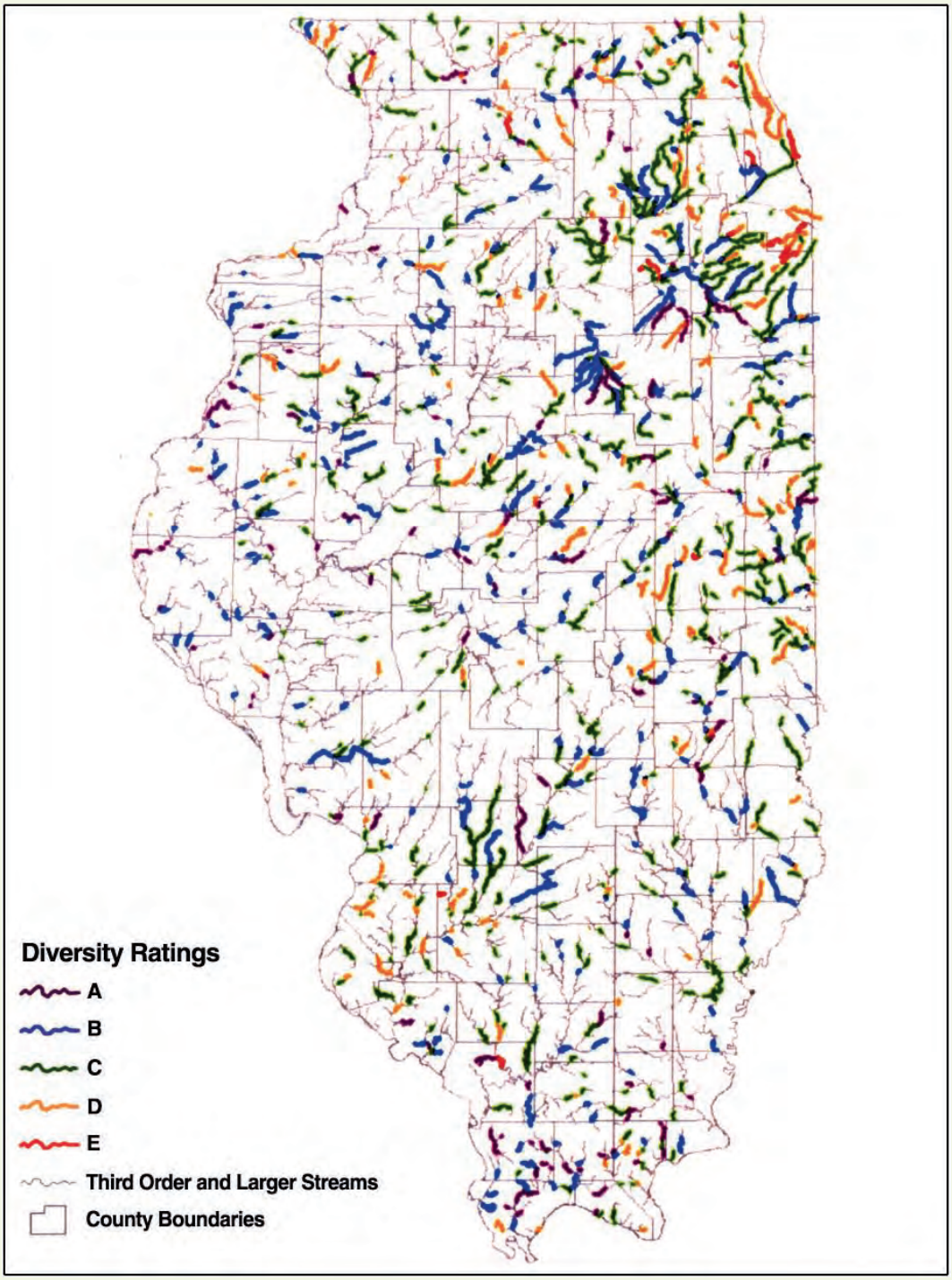

Figure 2. Geographic distribution of diversity ratings. Three percent of all valley segments for Illinois have a diversity rating. Access to the diversity data associated with individual streams is available at: http://www.dnr.state.il.us/orc/BioStrmRatings/.

Integrity Ratings

Background

Biological integrity refers to a system's wholeness (Angermeier and Karr 1994) and the ability of a system to support organisms and processes comparable to natural habitat of the region (Hughes and Noss 1992). Indices or assessment measures like the fish and macroinvertebrate Indexes of Biotic Integrity (Smogor 2000, Tetra Tech, Inc. 2007) measure how closely a test community resembles a natural, least-disturbed, or intact community (see Stoddard et al. 2006 for a discussion of these terms). Intactness for fish and macroinvertebrates was determined from the indices of biotic integrity in comparison to least disturbed or reference sites. Intactness for mussels was determined in comparison to historical species richness expectations for a site. In December 2006, project stakeholders met and discussed the appropriateness of available datasets for inclusion in the integrity analysis. We considered data collected within the past decade (1997-2006) that were collected as part of IDNR, IEPA, or INHS monitoring programs. We limited data to these institutions to ensure that collection methods were standardized, repeatable, and will be continued in the future so that data will be available for revisions of these ratings.

Approach

The general approach for obtaining an integrity rating is a six step process.

Step 1. *Select data for inclusion into the rating.*

We considered only data that were collected within the past decade. However, if a single site had more than one sample from the past decade, we used the sample with the highest value for inclusion in the final rating calculation. We used this approach rather than taking the most recent sample or an average of the samples because the highest value represents a conservative estimate of the biological potential for the site and this approach accounts for variation that may occur with sampling. Additionally, we did not average the data from multiple samples because the average could represent a condition that had not been found at the site. The following data were used in the final integrity ratings.

Fish – Fish data from community samples taken as part of the cooperative Basin Survey Program and other department monitoring were provided by the IDNR. These data were reviewed by regional IDNR stream biologists to verify that the samples were representative community samples with adequate sampling efficiency. Fish Index of Biotic Integrity (IBI) scores from the compiled samples were used to calculate integrity ratings. A total of 744 sites with calculated Fish Index of Biotic Integrity (IBI; Smogor 2000) scores were used in the final integrity score analysis (Table 7).

Table 7. The number of sites from each dataset used to calculate integrity scores.

Integrity Dataset	Number of Sites
Fish IBI	744
Macroinvertebrate IBI	452
Mussel Classification Index	134
Mussel Single Sample Intactness	329
Mussel Historical Intactness	366
Total	2025

Aquatic Macroinvertebrates – Benthic macroinvertebrate data were compiled

from the IEPA in Springfield. These data were collected following protocols established for use in their Stream Condition Index (Tetra Tech, Inc. 2007), referred to as the Macroinvertebrate Index of Biotic Integrity (MIBI) in this project. A total of 452 sites with total MIBI scores were used for the final integrity score analysis (Table 7).

Mussels – Mussel data were obtained from the INHS mollusk collections database (http://www.inhs.uiuc.edu/cbd/collections/mollusk/molluskintro.html) and IDNR. Records associated with freshwater snails, fingernail clams, zebra mussels, and Asian clams were not included, as well as any records not located in streams. In order to query data that were representative of community samples, we restricted our data to a list of collectors' names obtained from Kevin Cummings, the INHS malacologist and mussel database manager. Three variables were used to determine integrity ratings for mussels: mussel community index (MCI), single sample intactness, and historical intactness.

Freshwater Mussel Classification Index (MCI)

Data were obtained from Bob Szafoni (IDNR) for sites where the MCI has been calculated (Szafoni 2002). The MCI is comprised of four metrics: species richness, abundance, presence of intolerant species, and recruitment (Szafoni 2002). Each of these metrics is scored and the scores are then summed to determine an index score. Although the MCI is comprised of multiple metrics like the fish IBI and MIBI, it differs from these because the response of metrics included in MCI to human impacts in watersheds has not been considered as part of the MCI development. Because reference conditions were not used to evaluate metrics, the resulting MCI scores do not represent how far a sampled mussel community is from a natural or reference condition. Rather, they were selected to represent the characteristics of a healthy functioning community. Fundamentally this is different than the fish and macroinvertebrate IBIs, however we included the MCI in this project with the expectation that the index will be refined in the future and the availability of data will increase. A total of 134 sites were used for the final integrity score analysis (Table 7).

Intactness

One metric currently considered for inclusion into the MCI is community intactness, which is simply defined as the proportion of live species found at site to what is expected. Initial analysis suggested that the expected value increased with the number of samples available for a site. Therefore, we calculated both single sample and historical intactness values to account for different numbers of samples among sites.

Both intactness values were calculated for a site using the community sample from the past decade with the highest species richness of live mussel species divided by the total number of species including dead (dead and newly empty shells) and relict (old shells) specimens. For single sample intactness, the total number of species was from the single sample while for historical intactness it included all the species found at the site from all available samples. If both historical and single sample intactness were calculated for a site, then historical intactness was used in the final integrity ratings. A total of 366 historical intactness sites and 329 non-overlapping single sample intactness sites were used for the final integrity score analysis (695 total mussel sites, Table 7).

Step 2. *Convert raw data to a class score.*

One of the objectives for this project was to give equal weight to all communities of organisms found in streams if adequate and comparable sampling had occurred. To do this, we developed classes for each dataset used in the analysis in an attempt to interpret raw data from different sources and classify it similarly. Classes were independently developed for each dataset using each sample collection as an independent record rather than pooling samples from a single site. For example, if one site had multiple samples collected between 1997-2006, then each sample was treated as an independent record for the purpose of creating the class scores. Therefore, integrity and intactness expectations were based on the number of species you would expect to find in a single sampling event. Once the classes were established, only the sample that had the highest value from each site was used to calculate the final integrity rating.

Fish Index of Biotic Integrity — The fish Index of Biotic Integrity (IBI; Smogor 2000) scores were used as a component of the integrity rating. Because the IBI already had five integrity classes associated with the index (Smogor 2005), we maintained these classes with little modification. In the IBI, the integrity classes ranged from one (best) to five (worst). We reversed the numbering of the classes to give the sites with the highest IBI score a 5 instead of a 1.

Macroinvertebrate Index of Biotic Integrity (MIBI) — The MIBI (Tetra Tech, Inc. 2007) scores, based on seven metrics, were used as a component of the integrity rating. In the MIBI, final scores are placed into one of four classes, with one being the worst and four being the best. We maintained these four classes for this project.

Mussels

Mussel Classification Index (MCI)

Szafoni (2002) defined five classes for the MCI ranging from 0-4. We maintained classes 1 through 4 for the integrity ratings. Sites with a total score of 0 had no live mussels present and were not included in the final integrity rating calculations.

Intactness

We used the 90th percentile as the boundary for the highest class for datasets that were not developed with a reference site approach or did not have classes already developed for the index. Our rationale was that by raising the standard for the top class for intactness the 90th percentile, the highest class would be similarly restrictive as the datasets that did have reference site data available. We developed classes for historic and single sample intactness independently. For each,

intactness classes consisted of the 1-10th percentile for class 1 and the 11-50th, 51-89th and 90th+ percentile for classes 2, 3, and 4 respectively. Similar to mussel species richness expectations, classes were assigned according to drainage and stream size (Tables 8 and 9).

Step 3. *Standardize classes into a proportional score (P score).*

Proportional scores were used to standardize differing numbers of classes among variables. All metric/class scores range from "1" to a greater number with the greatest number always representing the highest class. In this step, we divided the assigned class score by the total number of classes available to obtain a proportional score (P score), which has a maximum of 1.

Step 4. *Average the proportional scores within a given taxonomic group to obtain a single taxonomic score (T score).*

Three datasets were potentially available for mussels: MCI score (Szafoni 2002), single sample intactness, and historical intactness. If both historical and single sample intactness were available for a site, then historical intactness was used in the final integrity ratings. When MCI and intactness scores were both available for mussels, then the average of the proportional scores was used to determine the taxonomic score (i.e., mussel taxonomic score). Creating a taxonomic score allowed us to

Table 8. Class scores for mussel single sample intactness percentages based on expectations according to drainage and stream size. Stream size is defined by link number, which is the number of first order streams based on the 1:100,000 National Hydrography Dataset (NHD) upstream of a given stream reach. Link codes refer to groupings of link numbers.

		Single Sample Intactness Percentage			
Stream Size	Drainage	Class 1	Class 2	Class 3	Class 4
Small (Link code 1)	Illinois	1 - 27	28 - 65	66 - 83	84+
	Mississippli	1 - 19	20 - 50	51 - 83	84+
	Ohio	1 - 20	21 - 42	43 - 54	55+
	Wabash	1 - 33	34 - 60	61 - 79	80+
Medium (Link code 2 - 3)	Illinois	1 - 26	27 - 71	72 - 90	91+
	Mississippli	1 - 35	36 - 71	72 - 88	89+
	Ohio	1 - 12	13 - 44	45 - 76	77+
	Wabash	1 - 20	21 - 50	51 - 82	83+
Large (Link code 4 - 6)	Illinois	1 - 21	22 - 50	51 - 83	84+
	Mississippli	1 - 32	33 - 64	65 - 77	78+
	Ohio	na	na	na	na
	Wabash	1 - 24	25 - 55	56 - 88	89+

Table 9. Class scores for mussel single sample intactness percentages based on expectations according to drainage and stream size. Stream size is defined by link number, which is the number of first order streams based on the 1:100,000 National Hydrography Dataset (NHD) upstream of a given stream reach. Link codes refer to groupings of link numbers.

		Historical Intactness Percentage			
Stream Size	Drainage	Class 1	Class 2	Class 3	Class 4
Small (Link code 1)	Illinois	1 - 22	23 - 50	51 - 79	80+
	Mississippli	na	na	na	na
	Ohio	1 - 15	16 - 27	28 - 59	60+
	Wabash	1 - 17	18 - 50	51 - 71	72+
Medium (Link code 2 - 3)	Illinois	1 - 20	21 - 62	63 - 79	80+
	Mississippli	1 - 20	21 - 57	58 - 79	80+
	Ohio	1 - 14	15 - 31	32 - 53	54+
	Wabash	1 - 14	15 - 41	42 - 71	72+
Large (Link code 4 - 6)	Illinois	1 - 11	12 - 44	45 - 69	70+
	Mississippli	1 - 16	17 - 45	46 - 63	64+
	Ohio	na	na	na	na
	Wabash	1 - 13	14 - 40	41 - 62	63+

include information derived from separate assessments into a combined signal for mussels. However, we averaged all available mussel information into a taxonomic score in order to give equal weight to fish, macroinvertebrates, and mussels in the final integrity rating.

Step 5. *Average proportional and/or taxonomic score for multiple sites on a valley segment.*

When multiple sites were associated with a particular valley segment for a dataset, the average of these proportional or taxonomic (for mussels) scores was used to calculate the final integrity score. An average from the different sites was used rather than considering the highest proportional score from the valley segment since conditions within the stream segment may vary and an average for the whole valley segment was a better representation than the signal from a single site.

Step 6. *Determine the final integrity rating for a valley segment.*

The final integrity score for a valley segment was calculated as:

Integrity Score = average (average fish IBI P scores + average MIBI P scores + average mussel T scores), where P score = proportional score and T score = taxonomic score

The cut-offs for the final integrity letter ratings were determined by visually inspecting the distribution of the integrity scores (Figure 3). We also attempted to have a similar percentage of rated valley segments within each letter category to the previous BSC projects. A total of 1019 valley segments were assigned an integrity rating of A-E (Figure 4). This represents 2.7% of the total valley segments. The percentage of valley segments with the assignment of ratings A - E is 9, 31, 45, 10 and 5 respectively. While this procedure has been developed for assigning ratings using multiple datasets, approximately one half of the total valley segments that were assigned an integrity score used data from only one dataset (Table 10).

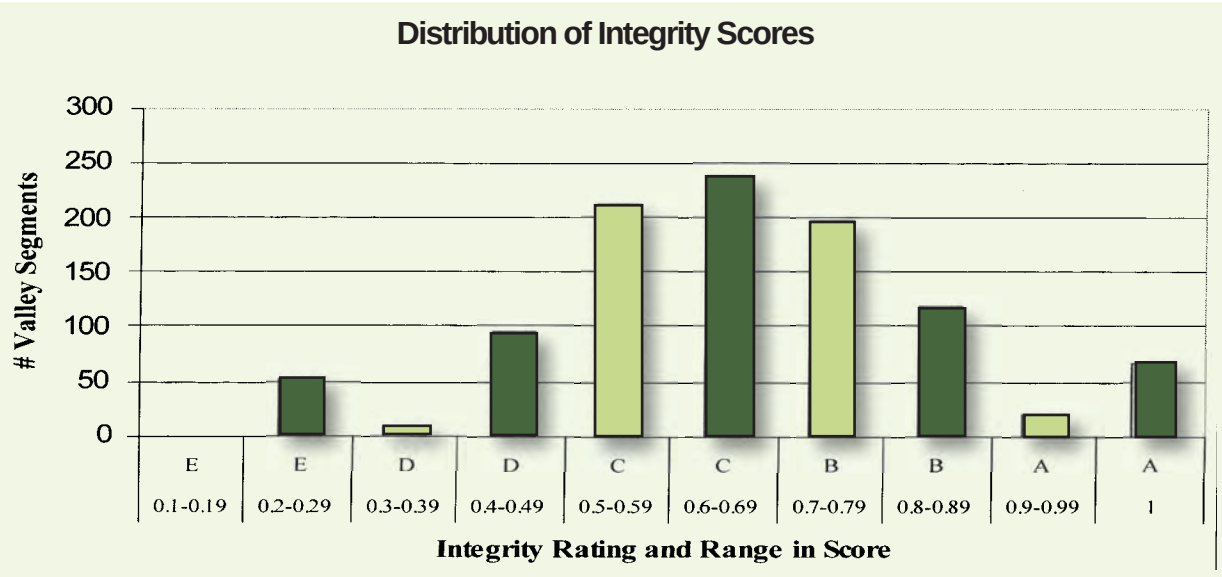

Figure 3. Distribution of integrity scores and corresponding letter ratings. The percentage of valley segments with integrity ratings of A-E is 9, 31, 45, 10, and 5 respectively.

Examples of Integrity Ratings

We provide several examples to further illustrate the integrity rating process (Table 11). In the first example only the single dataset of macroinvertebrate IBI is associated with the valley segment. The MIBI score is 39.99 which equals a class 2 out of 4; therefore the proportional score is 0.5. Since there are no other datasets available for this valley segment the final integrity rating is also 0.5 (Integrity Rating C).

Table 10. The number of datasets contributing to final integrity ratings.

Datasets	Total Valley Segments
1	515
2	306
3	104
4	80
5	12
Total	1019

In the second example both the MIBI and fish IBI are available. The fish IBI score is 47 corresponding to class 4 and a proportional score of 0.8. The MIBI score is 65.39 corresponding to class 3 and a proportional score of 0.75. The average of the fish IBI and MIBI proportional scores is calculated to determine the final integrity score of 0.775, which equates to an integrity rating of B.

In the third example, the fish IBI, MIBI, and two mussel datasets are available. The fish IBI score is 55, which is a class 4 score with a proportional score of 0.8. The MIBI score is 78.23 with a class score of 4 and a proportional score of 1. The mussel

Table 11. Examples of calculating integrity scores.

	Example with single dataset	Example based on Fish and Macroinvertebrate IBIs	Example with t average of mussel datasets
Valley Segment	38663	29766	44269
Fish IBI score		47	55
Fish IBI class score		4	4
Fish IBI proportional score		0.8 (4/5)	0.8 (4/5)
Macroinvertebrate IBI score	39.99	68.39	78.23
Macroinvertebrate IBI class score	2	3	4
Macroinvertebrate IBI proportional score	0.5 (2/4)	0.75 (3/4)	1 (4/4)
Mussel Classification Index score			16
Mussel Classification Index class score			4
Mussel Classification Index proportional score			1 (4/4)
Mussel single sample intactness percentage			29
Mussel single sample intactness class score			2 (2/4)
Mussel single sample intactness proportional score			0.5
Mussel historical intactness percentage			
Mussel historical intactness class score			
Mussel historical intactness proportional score			
Mussel taxonomic score			0.75
Integrity score	0.5	0.775	0.85
Integrity rating	C	B	B

classification index score is 16 with a class score of 4 and a proportional score of 1. The single sample intactness percentage is 29, which is a class 2 score and a proportional score of 0.5. The two mussel proportional scores are averaged for a mussel taxonomic score of 0.75. The final integrity score is then the average of the fish IBI proportional score, the MIBI proportional score, and the mussel taxonomic score. The final score equals 0.85, which is equivalent to an integrity rating of B. ●

Map of Integrity Ratings

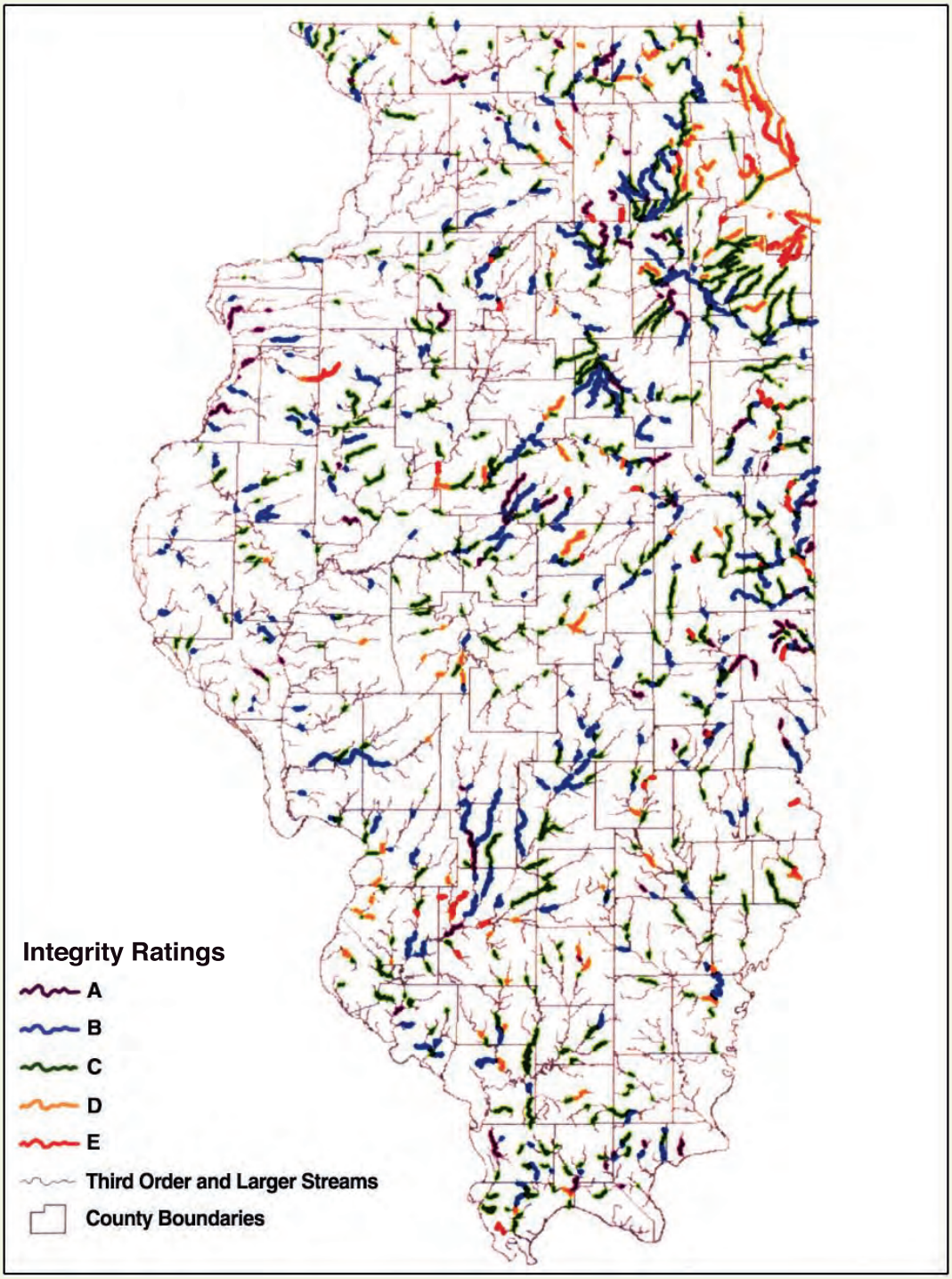

Figure 4. Geographic distribution of integrity ratings. Of the total 38,046 valley segments for the state, only 2.7% have an integrity rating. Access to the integrity data associated with individual streams is available at: http://www.dnr.state.il.us/orc/BioStrmRatings/.

Biologically Significant Streams

Biologically Significant Streams (BSS) are defined as streams that have a high rating or score based on data from at least two taxonomic groups. This can be achieved by obtaining an A rating either for diversity or for integrity that is based on data from two or more taxonomic groups. A second way to achieve this status is for a stream segment to have class scores in the highest class for at least two different taxonomic groups when considering the combined data from the diversity and integrity ratings. While these criteria may seem more rigorous than the previous BSS assessment, we believe this is merited. By requiring BSS segments to have either an A rating or high class scores from separate assessments, we assured that only the highest rated reaches are given biologically significant status. By considering two taxonomic groups, we have more confidence in the BSS designation because at least two signals are indicating high biological significance within the stream.

A total of 1366 valley segments had data associated with them. Our primary criteria requiring a valley segment to contain the highest class score from two different taxonomic groups accounted for 84% of all BSS identifications. However, most valley segments (56%) that were identified as biologically significant also received an A rating for Diversity and/or Integrity (Table 12).

Stream segments identified as biologically significant are unique resources in the state and we believe that the biological communities present must be protected at the stream reach, as well as upstream of the reach. It is well documented in the scientific literature that the physical and chemical properties of water at a stream site reflect upstream influences (Omernick et al. 1981, Smart et al. 1981, Hunsaker and Levine 1995). However, we are unaware of any criteria that can definitively identify the upstream extent of influence on biota within each stream reach identified as biologically significant. Therefore, we used some simple, practical constraints for extrapolating from site-specific information to upstream stream segments to arrive at the final segments identified as biologically significant. Stream reaches (i.e., arcs defined as confluence to confluence reaches) upstream of a valley segment that was identified as BSS were also

Table 12. The underlying qualifications for designation as a biologically significant stream (BSS). All BSS were evaluated based on information from at least two datasets from differing taxonomic groups. For streams rated A for diversity or integrity, at least two datasets from different taxonomic groups had to contribute to the final rating. For streams that had the highest class score, the two different taxonomic groups could be derived from a combination of both the diversity and integrity datasets.

Rationale	Count
2+ highest classes but no A ratings	54
Total with A rating	68
Total BSS valley segments	122
Breakdown 2+ highest class ratings	
Integrity A & 2+ highest classes	5
Diversity A & Integrity A & 2+ highest classes	11
Diversity A & 2+ highest classes	33
2+ highest classes but no A ratings	54
Total with 2+ highest classes	103
Breakdown A ratings	
Diversity A & Integrity A	1
Integrity A & 2+ highest classes	5
Diversity A	8
Integrity A	10
Diversity A & Integrity A & 2+ highest classes	11
Diversity A & 2+ highest classes	33
Total with A Rating	68

identified as biologically significant if ALL of the following criteria applied:

1) The nearest downstream valley segment has sufficient biological information to warrant BSS status.

2) The stream reach is part of the BSS and not a tributary connecting to it.

3) The stream reach is not smaller than third order in size. Stream order is a relative measure of stream size; larger orders represent larger streams. Using third order as a size limit is consistent with the extent of range for the majority of fish, mussel, and macroinvertebrate information used, which predominately was collected from third-order streams and larger. Importantly, not all stream segments smaller than third order were denied BSS status outright. As per the first criterion, regardless of stream size, if sufficient biological information was available from the valley segment and the information indicates high integrity or diversity, the segment was identified for BSS status.

4) The stream reach is free-flowing, i.e., not obviously part of a lake, reservoir, or large river. ●

Map of Biologically Significant Streams

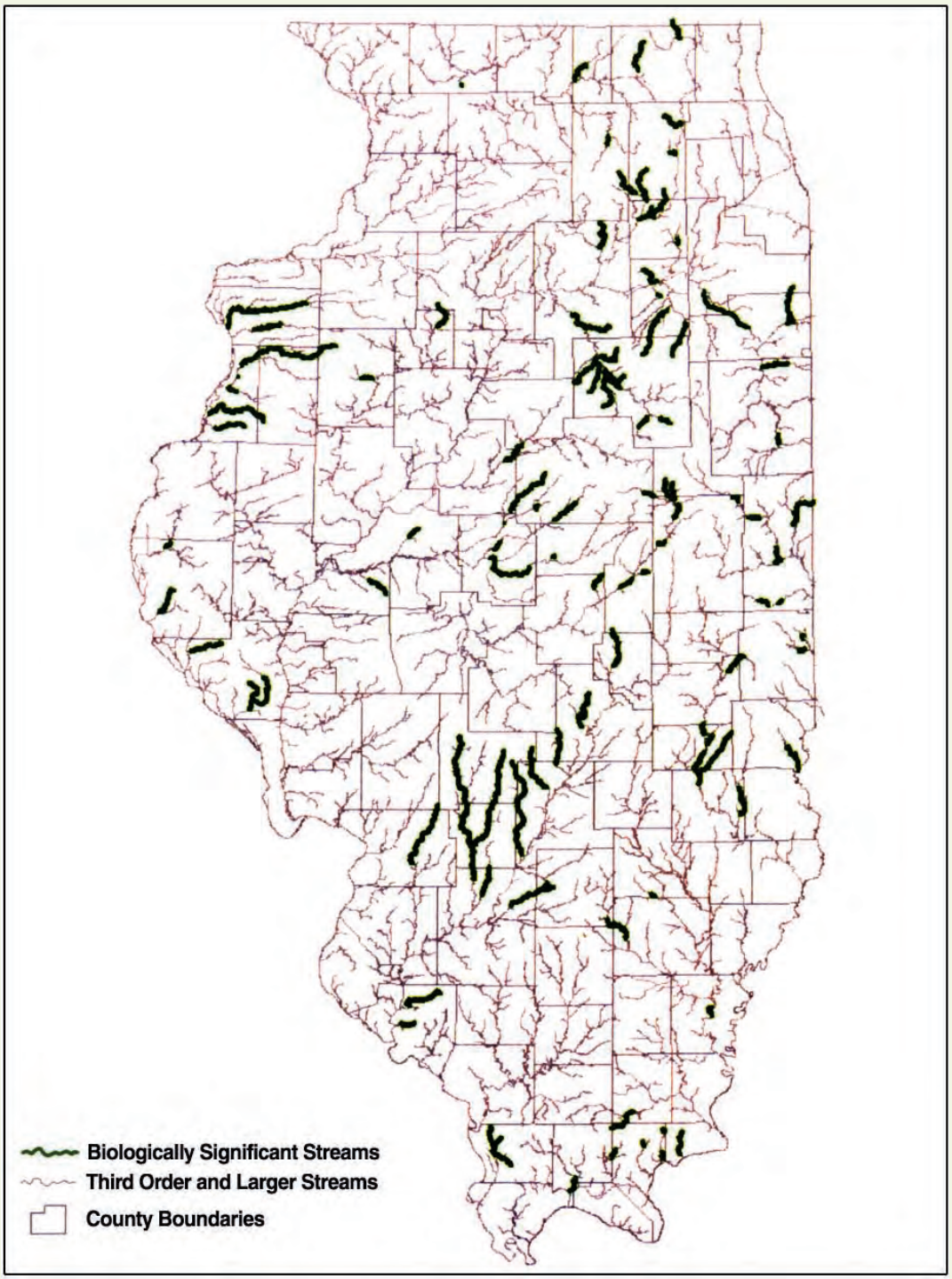

Figure 5. Geographic distribution of biologically significant streams. Access to the data associated with individual streams is available at: http://www.dnr.state.il.us/orc/BioStrmRatings/.

Conclusions

The ratings proposed in this document incorporate aspects of both previous BSC and BSS processes. Since the publication of BSC and BSS, new initiatives have been implemented to collect biological information relevant to streams such as the Critical Trends Assessment Program, Mussel Classification Index, and the Benthic Macroinvertebrate Stream Condition Index (MIBI in this report). The fish IBI has also been revised and the list of threatened and endangered species has changed since the original publication of BSS. With the additions and changes to these data sources, it was pertinent to reassess the strengths and weaknesses of the previous stream ratings in the context of supporting implementation of Illinois' Wildlife Action Plan. The Illinois Wildlife Action Plan identifies a broad array of species in greatest need of conservation, and therefore it was appropriate to consider multiple taxonomic groups in this project. In keeping with the Illinois Wildlife Action Plan's stream habitat goal that: "High–quality examples of all river and stream communities . . . are restored and managed within all natural divisions in which they occur", the current stream ratings and identification of biologically significant streams provide a new and updated tool to identify and target such areas. By combining multiple datasets from different taxonomic groups into a single rating, this project gives ratings that are a holistic representation of stream biological resources. Because we considered data in addition to fish, ratings were applied to an additional 483 valley segments that lacked fish data.

Data Issues

Other taxonomic groups were investigated but not used because of limited available data. For example, information on amphibians and reptiles in Illinois were obtained from the INHS amphibian and reptile collection. Of the listed amphibian and reptile species, the Dusky Salamander, is a species found in stream habitat (Phillips et al. 1999) and is considered an indicator species in small streams without fish (Southerland et al. 2004). While we included the Dusky Salamander in with the T&E species, we did not include other reptiles and amphibians because we lacked sufficient statewide information on the distribution of herpitiles inhabiting streams.

Plant information was also pursued because multiple species were included previously in the Biologically Significant Illinois Streams (Page et al. 1992) publication. However, of the plant species that are still protected under the Illinois Endangered Species Protection Act, only the heart-leaved plantain (Plantago cordata) is considered an associate of stream habitat (Herkert and Ebinger 2002). Many of the species included in the original BSS were aquatic plants associated with pond habitats and therefore were not included in our analysis. We consulted State experts, including INHS personnel previously involved with BSS (Page et al. 1992), to determine if other potential botanical datasets were available. However, no additional plant species were included in our ratings since there have not been systematic statewide surveys of plants associated with stream habitat.

Updates and Revisions

One of the goals of the previous BSC initiatives was to update stream ratings on an annual basis and to publish the revised ratings every five years. However, the original BSC stream ratings were updated only once based on data that were collected through 1993. Similarly, the BSS project was based on data collected through 1991 and has not been updated since. Therefore, stream designations identified in these projects are based on data that is at least 14 years old. Given that these ratings are used by a diverse group of stakeholders, it was clear that an updated version was required.

Several reasons may explain why previous stream ratings have changed through this project including: a new process evaluating diversity and integrity data, addition of data previously unavailable, revision to the fish IBI and T&E species list, and changes in stream condition. Because previous stream ratings may have changed for these reasons, comparisons of new ratings to previous ratings (from Hite and Bertrand 1989, Page et al. 1992, Bertrand et al. 1996) are not appropriate. For example, a stream reach rated as C in this report that was previously B should not be interpreted automatically as a degradation in stream quality. In addition to a revised process for assigning letter grades, biologically significant streams must now have data from two different taxonomic groups. Therefore, some streams previously identified as BSS did not receive the BSS designation in this effort because they lacked sufficient data given the change in criteria.

The ratings included in this report can assist in identifying streams that are in need of restoration or improved conservation. Given that less than 5% of the valley segments in the state have data associated with them, this project also indicates data gaps and can help prioritize future survey efforts. Current fish and macroinvertebrate indexes are only applicable to wadeable streams, thus we limited ratings to wadeable conditions. Development of assessment tools for headwaters and larger rivers would allow broader application of ratings in the future. Systematic surveys of mussels and crayfishes would support index refinement and broader inclusion of these taxa. As statewide surveys increase, the inclusion of other taxa such as herpitiles or aquatic macrophytes may be possible in future updates of the stream ratings.

The final product of diversity and integrity ratings and biologically significant streams, available at http://www.dnr.state.il.us/orc/BioStrmRatings/, indicates the data sources that contribute to each final rating and includes the proportional scores for these data. This information will enable different stakeholders with varying goals to use the ratings and contributing data for their particular purposes. For example, if a stakeholder wanted to target their efforts at streams with high mussel species diversity they would be able to identify those streams according to the mussel species richness proportional score contributing to the final diversity score. Similarly, efforts focused at streams with a high fish IBI score could consider the fish IBI proportional score contributing to a final integrity score.

The major data collection programs (collaborative basin surveys, CTAP, Endangered Species Board updates) used in this project operate on a five year interval to assess streams statewide. Therefore, the IDNR intends to update ratings annually at http://www.dnr.state.il.us/orc/BioStrmRatings/ and publish new ratings, including designating biologically significant streams, after the completion of each round of basin surveys. A published revision of ratings should be available approximately every 5-6 years. With each published update, a new range of data from each of the sources will be selected to encompass the last ten years. For certain datasets such as the fish and macroinvertebrate IBIs, the values that correspond to the class scores will not have to be recalculated since they were already established. However, for other datasets such as the mussel species richness and intactness data, the number of species that correspond to the percentiles that were used to determine class scores will undoubtedly change with the collection of additional data. For these datasets, the values that represent the different class scores should be recalculated using the new data for each revision until these values can be more formally established. In addition, the cut-offs for the letter ratings are based on the distribution of the final scores. In the future these cut-offs could change as new data are analyzed. Therefore, the final scores that correspond to the letter ratings A-E should be reevaluated with any update.

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Appendix A. List of threatened and endangered species included in stream ratings.

Amphibians

Endangered

Spotted Dusky Salamander	*(Desmognathus conanti)*

Crayfish

Endangered

Indiana Crayfish	*Orconectes indianensis*
Kentucky Crayfish	*Orconectes kentuckiensis*
Shrimp Crayfish	*Orconectes lancifer*
Bigclaw Crayfish	*Orconectes placidus*

Fish

Endangered

Lake Sturgeon	*Acipenser fulvescens*
Western Sand Darter	*Ammocrypta clarum*
Bluebreast Darter	*Etheostoma camurum*
Harlequin Darter	*Etheostoma histrio*
Cypress Minnow	*Hybognathus hayi*
Bigeye Chub	*Hybopsis amblops*
Pallid Shiner	*Hybopsis amnis*
Northern Brook Lamprey	*Ichthyomyzon fossor*
Sturgeon Chub	*Macrhybopsis gelida*
Greater Redhorse	*Moxostoma valenciennesi*
River Chub	*Nocomis micropogon*
Pugnose Shiner	*Notropis anogenus*
Bigeye Shiner	*Notropis boops*
Blacknose Shiner	*Notropis heterolepis*
Taillight Shiner	*Notropis maculatus*
Weed Shiner	*Notropis texanus*
Northern Madtom	*Noturus stigmosus*
Pallid Sturgeon	*Scaphirhynchus albus*

Threatened

Eastern Sand Darter	*Ammocrypta pellucidum*
Longnose Sucker	*Catostomus catostomus*
Cisco	*Coregonus artedi*
Gravel Chub	*Erimystax x-punctatus*

Iowa Darter	*Etheostoma exile*
Banded Killifish	*Fundulus diaphanus*
Starhead Topminnow	*Fundulus dispar*
Least Brook Lamprey	*Lampetra aepyptera*
Redspotted Sunfish	*Lepomis miniatus*
Bantam Sunfish	*Lepomis symmetricus*
River Redhorse	*Moxostoma carinatum*
Ironcolor Shiner	*Notropis chalybaeus*
Blackchin Shiner	*Notropis heterodon*

Mussels

Endangered

Spectaclecase	*Cumberlandia monodonta*
Fanshell	*Cyprogenia stegaria*
Snuffbox	*Epioblasma triquetra*
Pink Mucket	*Lampsilis abrupta*
Wavy-rayed Lampmussel	*Lampsilis fasciola*
Higgins Eye	*Lampsilis higginsii*
Orangefoot Pimpleback	*Plethobasus cooperianus*
Sheepnose	*Plethobasus cyphyus*
Clubshell	*Pleurobema clava*
Ohio Pigtoe	*Pleurobema cordatum*
Fat Pocketbook	*Potamilus capax*
Kidneyshell	*Ptychobranchus fasciolaris*
Rabbitsfoot	*Quadrula cylindrica*
Salamander Mussel	*Simpsonaias ambigua*
Purple Lilliput	*Toxolasma lividus*
Rainbow	*Villosa iris*

Threatened

Slippershell	*Alasmidonta viridis*
Purple Wartyback	*Cyclonaias tuberculata*
Butterfly	*Ellipsaria lineolata*
Elephant-ear	*Elliptio crassidens*
Spike	*Elliptio dilatata*
Ebonyshell	*Fusconaia ebena*
Black Sandshell	*Ligumia recta*
Little Spectaclecase	*Villosa lienosa*

Plants

Endangered

Heart-leaved Plantain	*Plantain cordata*

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XM - 8/08

IOCI0048-09

CERTIFICATE OF SERVICE

I, Jessica Dexter, hereby certify that I have filed the attached **NOTICE OF FILING and ENVIRONMENTAL GROUPS' RESPONSE TO COMMENTS FILED JANUARY 16, 2013** upon the attached service list by depositing said documents in the United States Mail, postage prepaid (or via email where indicated) in Chicago, Illinois on January 30, 2013.

Respectfully submitted,

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