PUBLIC PARTICIPATION RESPONSIVENESS SUMMARY

FOR THE

SECTION 303(d) LIST OF IMPAIRED WATERS

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL SERVICES DIVISION

DECEMBER, 2002

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RESPONSIVENESS SUMMARY

The following constitutes a summary of the comments received in response to the proposed Section 303(d) Impaired Waters List. Notice of Availability of the 303(d) list was published on August 24, 2002 in the Des Moines Register. In addition, notice of the availability of the list was sent to interest groups and statewide news network organizations. Public comments were accepted from August 19 through November 1, 2002.

Approximately 30 individuals or organizations provided comments, with the majority of comments concerning item I below. This document provides a discussion of the issues raised by the comments and how the comments were incorporated into the development of the final list. For a list of the individuals and organizations that commented and a summary of individual comments, please refer to Appendix A.

The comments received are addressed below in terms of the issue involved.

I. COMMENTS OPPOSING THE USE OF IOWA S CREDIBLE DATA LAW

Several commentors were opposed to the use of Iowa's Credible Data Law (CDL) in the development of the proposed 2002 303(d) Impaired Waters List. The comments regarding the CDL and the listing of waterbodies can be separated into three general categories:

1. Comments opposed to the removal of waters from the 1998 303(d) list based on the CDL;
2. Comments opposed to the data exclusions of the CDL; and
3. Comments regarding the legality of the CDL itself.

Some commentors also recommended that stakeholder groups be developed to address the data problems of the CDL and the listing problems created by the CDL.

Commentors were opposed to the removal of waters from the 303(d) list based on the requirements of Iowa's Credible Data Law. They state that the Clean Water Act and Federal Law prohibit the removal of waterbodies from the 303(d) list without sufficient and specific evidence that the waterbodies are meeting the water quality standards, and that the delisting of waterbodies based only on an absence of data meeting the CDL is a violation of federal law. If it is determined that a waterbody is impaired, it must be listed regardless of whether or not the data meets the requirements of the CDL. The DNR must not remove waters from the 303(d) list without further justification for their removal. Specifically, the DNR should

- Look carefully at whether Best Professional Judgement really proves that a waterbody is no longer impaired,

Iowa's fishkill database.

One commentor stated that the criteria of Best Professional Judgement in the Credible Data Law must only apply when listing impaired waters and not when delisting waters. If the BPJ of a biologist is not sufficient to add an impairment to the list, it should likewise not be sufficient to remove an impairment from that list.

The commentors indicated that federal requirements state that all "existing and readily available water quality data and information" be considered in the development of the 303(d) list. Thus, all data should be considered when listing waterbodies, especially since Iowa does not devote enough resources to credible data monitoring. In the case of wetlands, Iowa does not have monitoring or criteria especially for wetlands, so all types of data (Best Professional Judgement in particular) should be considered when listing (or delisting) wetlands.

A few commentors commented specifically about the legality of certain provisions of the CDL. The commentors attest that the CDL states that a water designated as impaired in the 305(b) list need not be on the 303(d) list, that a waterbody will not be put on the 303(d) list if an impairment may be abated by existing effluent limits or other pollution control measures, and that the CDL disapproves of using narrative water quality standards. The commentors state that these are all violations of the Clean Water Act and should not be reasons for the delisting of waterbodies. One commentor stated that although states can raise the bar

above federal regulations, they cannot do so in a way that 1) contravenes Congressional legislative intent, and 2) has the effect of weakening federal standards, both of which the CDL does.

For a complete list of the comments in opposition to the use of Iowa's Credible Data Law, please see Appendix A.

Response:

1. Federal regulations require states to submit a list of waterbodies not meeting water quality standards from "time to time." As part of this list, each state is to identify those water quality limited-segments still requiring TMDLs. In addition, the federal regulations require that the state demonstrate good cause for not including a water or waters on the list. Good cause includes, but is not limited to, more recent or accurate data; more sophisticated water quality modeling; flaws in the original analysis that led to the water being listed; or changes in conditions.

The credible data law (Sec. 9. Section 455B.171) was enacted by the Iowa legislature in 2000, and established guidelines that the IDNR must follow when determining whether any water of the state is to be placed on any section 303(d) list. Credible data is defined as scientifically valid chemical, physical, or biological monitoring data collected under a scientifically accepted sampling and analysis plan, including quality control and quality assurance procedures. Data dated more than five years before the department's date of listing shall be presumed not to be credible data unless compelling reasons can be identified as to why the data is credible. The credible data law also states that credible data is required in (1) determining whether any water of the state is to be placed on or removed from any section 303(d) list, (2) determining whether any water of the state is supporting its designated use or other classification, (3) determining any degradation of a water of the state under 40 C.F.R § 131.12, and (4) establishing a total maximum daily load for any water of the state.

As stated in Iowa's credible data law, the use of credible data shall be consistent with the requirements of the federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq. The Department believes both the federal regulations and state (credible data) law can be met by taking into account all existing and readily available water quality-related data and information that meets the more stringent data quality controls of the state law.

Some of the waterbodies that were included on the 1998 list are not included on the 2002 list for various reasons. These include new water quality monitoring data or new or more recent water quality assessments, new conditions that have remedied the water quality problem, new water quality and watershed modeling to identify potential pollutant loads, and flaws in the original analysis. A waterbody specific rationale has been prepared for those waterbodies that were on the 1998 303(d) list, but are not included on the 2002 list.

2. All existing and readily available water quality-related data and information were evaluated for purposes of the 305(b) report and 303(d) listing. For a waterbody to be considered for listing on the 303(d) list, necessary data quantity and quality requirements must be met to reduce the chances of listing a waterbody in error and to meet the requirements of the credible data law.

Data from the current lakes study (2000-01) by Iowa State University is being used to calculate Trophic State Indexes for chlorophyll-a, total phosphorous, and transparency. These indexes are being used to determine impairments to the narrative water quality standards, and have resulted in approximately 20 lakes being added to the 2002 303(d) list

As stated in the credible data law, data dated more than five years before the department's date of listing shall be presumed not to be credible data unless compelling reasons can be identified as to why the data is credible. Data older than five years old can be and is used to show water quality trends. These trends

Volunteers who supply water quality data must be designated as qualified volunteers as stated in the credible data law. The Department has now adopted a rule that states the criteria necessary to be a qualified volunteer, however, this rule was not in place during the previous biennial period.

The USGS NAWQA study collected bacterial samples and had them analyzed for E. coli. The Iowa water quality standard for Class A waters is a measurement of fecal coliform bacteria. The State of Iowa does not currently have a water quality standard for E. coli. Thus, data for *E. coli* are not useful for either identifying violations of state water quality standards or for adding waters to Iowa's Section 303(d) list. Iowa DNR, however, is planning to drop fecal coliform bacteria in the Iowa Water Quality Standards in favor of *E. coli* as the indicator bacterium for determining support of Class A uses. Once adopted into the state Water Quality Standards, E. coli data will be used to determine the degree to which Iowa's Class A waters support their designated use for primary contact recreation.

Both USGS and USF&WS are solicited for water quality data from the most recent biennial period. Chemcial water quality data were downloaded from the USGS web site (http://waterdata.usgs.gov/ia/nwis/qw) for stations where water quality data were collected during the biennial period ending in September 2001: Wapsipinicon River near Tripoli, Iowa River at Wapello, Iowa River near Rowan, Missouri River at Omaha, South Fork Iowa River northeast of New Providence, and the Mississippi River at Clinton. Chemical water quality data from USGS-sponsored monitoring in Mississippi River Pool 13 as part of the Long-Term Resource Monitoring Program were evaluated for use in Section 305(b) reporting and Section 303(d) listing. The limited parameter suite used for this program (e.g., does not include pesticides or indicator bacteria) did not allow development

of a water quality assessment for that reach of the Mississippi River. Staff from the LTRMP station at Bellevue, Iowa, however, have conducted routine monitoring on two Iowa tributaries to the Mississippi River in Clinton County (Elk River and Rock Creek). These data were the primary basis for the Section 305(b) assessments for both of these waterbodies.

Iowa's credible data law (Sec. 9. Section 455B.171) established guidelines that the IDNR must follow when determining whether any water of the state is to be placed on any section 303(d) list. Credible data is defined as scientifically valid chemical, physical, or biological monitoring data collected under a scientifically accepted sampling and analysis plan, including quality control and quality assurance procedures. Based on the definition of credible data set in Iowa law, best professional judgement is not deemed to be credible data and cannot be used when determining whether a water of the state is placed on the 303(d) list.

Iowa's water quality standards state that the fecal coliform content shall not exceed 200 organisms/100 ml, except when the waters are materially affected by surface runoff. Thus, data from surface waters that are "materially affected" by surface runoff, regardless of the level of fecal coliform bacteria in the sample, are not used for purposes of either Section 305(b) reporting or Section 303(d) listing. The issue of high-flow exemptions for Iowa's fecal coliform standard is being reviewed by IDNR and its water quality standards technical advisory committee.

The Department believes there is a valid and legally defensible reason to exclude waters where fish kills have occurred due to illegal or unauthorized discharges. The intent of Section 303(d) is to identify all impaired waters for which the TMDL process is needed to achieve applicable water quality standards. Waters that are impaired due to unauthorized discharges can be addressed through enforcement of existing, required pollution control programs. Calculation and implementation of a TMDL is not needed to achieve full support of such water's designated use and thus, there is a logical basis for excluding waters impaired due to illegal discharges.

Calculation of a TMDL for spills and illegal discharges would be virtually impossible because of the sporadic and unanticipated nature of the pollution. Even if a TMDL could be calculated, implementation of the TMDL would present the same enforcement challenge as discharges that violate existing regulations and permit limits.

3. *(The following response was written by IDNR s general counsel)*
A state administrative agency is a creature of statute. As such, an agency has no general or inherent power, but only those powers conferred by the legislature and such implied powers as are reasonably inferred, or implied to carry out the powers expressly granted. An agency has no power to act in conflict with the authority granted to it by the legislature.

The comment raises the issue of preemption arising under the supremacy clause of the United States Constitution (U.S. Constitution Article VI, Clause 2.) That clause mandates that federal law overrides, i.e., "preempts" a state law or regulation where there is an actual conflict between the two sets of legislation such that both cannot stand. A determination of whether state law or rules are inconsistent with federal law or regulation, and whether Congress or the federal agency specifically intended to preempt state requirements lies within the province of the courts, not a state administrative agency. A critical question in any preemption analysis is always whether Congress intended that federal legislation supersede state law, an issue that cannot be resolved by the state administrative agency. Preemption doctrine requires a determination that state law "actually conflicts" with federal law.

The preemption doctrine is a constitutional issue arising under the United States constitution. Administrative agencies are not empowered to determine constitutional questions and they have no authority to consider or question the constitutionality of an act of the legislature such as their own enabling legislation. They may not declare unconstitutional the statutes they are empowered to administer and enforce. The agency is constrained to act in accordance with its enabling statute.

II. COMMENTS SUPPORTING THE USE OF IOWA S CREDIBLE DATA LAW

Comments: Three commentators supported the use of the Credible Data Law in the development of the proposed 2002 303(d) list. Two commentors fully support the adoption of the 2002 303(d) list based on the use of the Credible Data Law, while the other commentor was concerned that some of the data used to develop the list did not meet the requirements of the Credible Data Law.
Specifically, the commentors concerns were:

- The Trophic State Index (TSI) being used to determine impairment, as there is limited supporting information provided by the IDNR for the basis of the decision to use the TSI. This number should not be used as a standard due to lack of credible supporting data.
- The inclusion of the Part Two Waterbodies. Virtually all of these waters are on the list due to violations of narrative water quality standards. After the review of the 305(b) report, it appears that best professional judgement is applied to determine if these waters should be listed, and credible data is not used. These waters must be removed from the final 303(d) list until data is sufficient to place them on the listing of waters for further investigation, or the state risks violation of the credible data law.

For a complete list of the comments in support of the use of Iowa Credible Data Law, please see Appendix A.

Response:

1. Historical assessments of lake water quality in Iowa have been based primarily on the best professional judgement of Iowa DNR fisheries biologists. The reliance on best professional judgement resulted from the lack of routine ambient monitoring at Iowa lakes and the lack of water quality criteria for parameters that are most likely to indicate lake water quality impairments (e.g., nutrients (nitrogen and phosphorus), chlorophyll, and turbidity). Assessments based on best professional judgement were supplemented with lake monitoring data as this information has been available. Previous statewide surveys of Iowa lakes, such as those conducted by Iowa State University in 1979 and in 1990 and 1992, however, have involved monitoring in summers of only one year at approximately 10-year intervals. This amount of data, although providing a snapshot of lake water quality given the climatic conditions of the specific year of sampling, has not been useful for developing a more accurate characterization of water quality over the long-term. Fortunately, the current and on-going lake survey conducted by Iowa State University is designed as a five year study and thus is capable of providing data that can be used to better characterize lake water quality than was possible with data from previous surveys.

For purposes of developing water quality assessments for the 2002 Section 305(b) reporting cycle, Carlson's "trophic state index" (TSI) was used with data generated for 130 Iowa lakes as part of the Iowa State University surveys in 2000 and 2001. "Trophic state" has long been used by limnologists to classify lakes and is based on the chemistry and biology of lakes. Although a number of approaches exist to classifying lakes according to trophic state, and although a number of controversies exist regarding how "trophic state" is defined, the use of this framework has the advantages of historical usage, general acceptance of the terminology of the trophic state concept (e.g., eutrophic), and an improved ability to describe lake condition versus a description using a single variable or number (e.g., total phosphorus concentration of 100 parts per billion).

The trophic state index developed by limnologist Robert Carlson of Kent State University is a numeric indicator of the biomass of suspended algae in lakes and thus reflects a lake's nutrient condition and water transparency. The level of plant biomass is estimated by calculating the TSI value for chlorophyll-a; TSI values for total phosphorus and secchi depth serve as surrogate measures of the TSI value for chlorophyll. The focus on turbidity in general, and chlorophyll in particular, seems appropriate for assessing the degree to which Iowa lakes support their designated Class A (primary contact recreation) and Class B (aquatic life) uses. As described by Carlson in his 1991 paper, turbidity, and especially turbidity related to large populations of suspended algae, is a key indicator of the degree to which a lake supports uses for primary contact recreation:

> [plant] biomass is a proximate measure of the problems that plague lakes. Probably few citizens complain about the productivity of their lake and fewer yet lodge complaints about phosphorus concentrations. A [plant] biomass-related trophic state definition places the emphasis of the classification on the problem rather than on any potential cause.

For purposes of assessing support of the Class A (primary contact recreation) and Class B (aquatic life) uses at Iowa lakes, median values from ISU lake monitoring in 2000 and 2001 were used to calculate TSI values for total phosphorus, chlorophyll-a, and Secchi depth. The resulting water quality assessments were based primarily on TSI values for chlorophyll-a and Secchi depth (water transparency); the TSI values for total phosphorus were used to interpret inconsistencies between TSI values for chlorophyll and Secchi depth. Due to the lack of sufficient data to accurately characterize lake water quality (i.e., three to five years of sampling with a frequency of from three to five samplings per year), assessment thresholds for identifying “impaired” lakes were set in the hypereutrophic range (TSI values for chlorophyll-a and/or Secchi depth greater than 70). Using these thresholds provides overwhelming evidence of water quality impacts and provides good confidence that lakes assessed as “impaired” would likely be assessed as “impaired” given the more complete dataset that will result from additional years of lake monitoring. Data for inorganic suspended solids from the ISU surveys, as well as information on lake plankton communities in Downing et al. (2002) were also used to interpret TSI values and to provide a more complete assessment of water quality at Iowa’s lakes.

2. Waterbodies that are included on Part 2 of the 2002 303(d) list are impaired by “pollution”, and therefore do not require development of a TMDL. The impairments in this part include exotic species, hydrologic modifications, and habitat alterations. Exotic species impairments were identified by local DNR biologists where exotic or invasive species are causing impairments to the designated uses of a particular waterbody. These invasive species are typically purple loosestrife in wetlands and common carp in lakes. Hydrological modifications are most often noted at wetlands, and exist in two groups within the list. Those Missouri River wetlands that have been left unconnected with the river due to the Missouri River channel degradation, and inland wetlands that have had their inflow altered by the installation of levees or channel changes so that the wetlands do not receive the necessary flow to maintain an adequate water level. Those stream segments that are included in this part as impaired by habitat alterations, were done so based on data collected as part of the biocriteria sampling completed by the DNR and UHL.

III. COMMENTS ON THE METHODOLOGY USED TO DEVELOP THE 303(d) LIST

Comments: There were four comments regarding the methodology used to develop the proposed 2002 303(d) Impaired Waters List. Two of these comments address the movement of waters to the "list of waters in need of , one was concerned with the consent decree entered in a federal lawsuit against the EPA, No. C 94-134 and C 99-30, in the Northern District of Iowa, and one generally addressed the listing methodology. The comments are summarized as follows:

- The DNR's methodology for developing the 2002 303(d) list states that waterbodies with evidence of impairment that do not qualify for inclusion on the 303(d) list will be placed on a separate list for further investigation. We do not support moving any waterbodies from the current (1998) list of impaired waters to this list for further assessment. There is not an enforcement mechanism to make sure that further monitoring takes place to determine whether a waterbody is in fact impaired. The IDNR should assess a listed waterbody where impairment is in question prior to beginning TMDL development, and if the assessment shows the waterbody is not impaired, it can be removed from the impaired list during the next listing cycle.
- This comment regards the consent decree entered in a federal lawsuit against the EPA, No. C 94-134 and C 99-30, in the Northern District of Iowa. This decree is very specific in requiring that certain existing and readily available data listed in the decree relating to the Mississippi River be considered in drafting the 2002 303(d) list. There is no indication in the proposed 303(d) list nor the accompanying statement of methodology that indicates this statement was considered in drafting the list.
- The DNR's methodology for developing the 2002 303(d) list states that fish kills caused by an "illegal or unauthorized release of manure or other toxic substances" will not be considered for Section 303(d) listing of TDML development. There is no logic to excluding a waterbody from the 303(d) list because the activity that caused the pollution is illegal. Also, that same IDNR methodology document states on page 2 that, "Historically, Iowa has listed impaired waterbodies regardless of whether the pollutant/pollution source(s) can be legally controlled or acted upon by the State of Iowa. This methodology is consistent with that history." These incongruous statements in the same document reduce confidence in the methodology of the DNR. We believe that waterbodies that have suffered repeated fish kills are indeed impaired and must not be removed from the 2002 list.
- Federal regulations indicate that the priority ranking should be based on the "severity of the pollution and the uses to be made of such waters". Thus, high priority should be given to waters with "imminent human heath or aquatic heath problems" and those with impacts on endangered or threatened species. However, IDNR also bases its prioritization on whether there is adequate data and whether there is local support for a TMDL. These factors do not comport with federally required criteria.

For a complete list of the comments regarding the methodology used to develop the 303(d) list, please see Appendix A.

Response:
1. As called for in Iowa's credible data law, a listing of waters for which further investigative monitoring is necessary shall be maintained. Comments received indicated that the use of this list was supported as a step to adding waters to the 303(d) list, but not as a means of omitting waters from the list. The IDNR's intention is to place waters with an indication of impairment (without credible data) on this list for additional monitoring so that credible data can be obtained. The IDNR already maintains a followup list for streams with biological impairments. Therefore, these waters are not "falling off" the list to be forgotten.

2 A review of existing and readily available water quality data and related information suggests that the problems observed due to sedimentation and/or turbidity in the Iowa reach of the Upper Mississippi River (UMR) do not constitute violations of numeric or narrative criteria in *Iowa s Water Quality Standards* (Chapter 61, Iowa Administrative Code). Thus, none of the 14 waterbody segments defined for the Iowa reach of the UMR as part of Section 305(b) reporting were identified as candidates for Iowa's 2002 Section 303(d) list due to suspended sediment, accumulation of suspended sediment (sedimentation), or turbidity.

The *Iowa Water Quality Standards* do not contain numeric criteria for sediment/siltation, turbidity, or surrogate measures (e.g., total suspended solids) that apply to ambient surface water conditions. The *Standards* do contain eight narrative criteria that apply to all surface waters in Iowa; one of these narrative criteria may be relevant to nonpoint source-related water quality problems of sedimentation and turbidity in the Upper Mississippi River:

> *Such waters shall be free from materials attributable to wastewater discharges or agricultural practices producing objectionable color, odor, or other aesthetically objectionable conditions [General Water Quality Criteria, Section 61.3(2)(c)].*

Application of this narrative criterion to potential water quality impacts related to turbidity and/or siltation on the UMR, would, however, involve identification of an associated "aesthetically objectionable condition." IDNR is not aware of any sediment or turbidity-related water quality impacts in this river segment that constitute an "aesthetically objectionable condition" that would qualify as a violation of this narrative criterion. The general failure of state water quality standards to recognize the products of erosion as "pollutants" was noted by a 1981 report of the Upper Mississippi River Basin Commission (Final Report: The Upper Mississippi River Main Stem Level B Study). As suggested by the recent

U.S. EPA effort to establish numeric criteria for nutrients and related turbidity, developing state water quality criteria for nonpoint source pollutants is often problematic. Regardless, this shortcoming in state water quality standards has apparently not been addressed in the 20 years since that report.

The decision not to add Iowa's segments of the UMR for sedimentation/turbidity impacts to Iowa's 2002 Section 303(d) list was made after review and consideration of materials provided to Iowa DNR by U.S.EPA in January 2002 and July 2002 as part of the Consent Decree with between U.S. EPA and SAILORS Inc., Mississippi River Revival, and Sierra Club. These materials included 39 separate journal articles, government reports, presentation abstracts, and water quality datasets. IDNR is preparing a separate report that summarizes the review of these 39 items as well as additional water quality information related to impacts of suspended sediment and turbidity on the Upper Mississippi River.

While the literature on water quality of the Upper Mississippi River often refers to impacts of siltation/sedimentation, this literature does not identify tools for assessing whether the impacts observed are different than would be expected given the development of this river system for commercial navigation by the U.S. Army Corps of Engineers as authorized by the U.S. Congress. The degree to which these federally-mandated alterations contribute to impacts of sediment and turbidity on the UMR must be quantified before states can begin to determine whether the impacts observed are other than those expected as the result of the intentional alteration of the hydrology of the UMR system

The development of the UMR for commercial navigation has resulted in the near cessation of natural hydrologic processes that continually created and destroyed riparian wetlands through flooding and lateral migration of the river channel. In a natural condition, a river system is a dynamic and self-renewing system. The series of dams and channel control structures constructed to facilitate commercial navigation on the UMR have created a largely static river system that is attempting to reach a new equilibrium with sediment transport and accumulation that is dictated by its changed hydrological setting. The net accumulation of fine sediments in backwater areas is an expected step in achieving this new equilibrium.

IDNR does recognize, however, that maintenance of the UMR's navigation system needs to be conducted in a way that minimizes environmental impacts including delivery of sediments to backwater areas, increases in turbidity, and hydrologic isolation of additional backwater habitats.

3. The Department believes there is a valid and legally defensible reason to exclude waters where fish kills have occurred due to illegal or unauthorized discharges. The intent of Section 303(d) is to identify all impaired waters for which the TMDL process is needed to achieve applicable water quality

standards. Waters that are impaired due to unauthorized discharges can be addressed through enforcement of existing, required pollution control programs. Calculation and implementation of a TMDL is not needed to achieve full support of such water's designated use and thus, there is a logical basis for excluding waters impaired due to illegal discharges.

Calculation of a TMDL for spills and illegal discharges would be virtually impossible because of the sporadic and unanticipated nature of the pollution. Even if a TMDL could be calculated, implementation of the TMDL would present the same enforcement challenge as discharges that violate existing regulations and permit limits.

4. The current federal regulations requires that the list include a priority ranking for all listed waters, taking into account the severity of the pollution and the uses to be made of such waters. The IDNR's methodology meets this requirement, but also adds priority to those waters where enough water quality related information is readily available to complete the TMDL, or where there is adequate public support to implement the TMDL requirements. This is important because in Iowa the majority of our water quality impairments are due to nonpoint sources, where voluntary approaches are typically used to achieve water quality improvements.

In addition, it is not necessary to meet all of the criteria in a particular priority category to be given that priority. For example, a waterbody with an impacted endangered species would be given high priority regardless of whether sufficient data is available or local support is evident.

IV. GENERAL GROUPS OF WATERBODIES THAT SHOULD BE LISTED

Comments: Some commentors supported the listing of specific groups of waterbodies, in particular, river segments affected by Combined Sewer Overflows (CSO), drinking water sources, and lakes. The commentors believe that where a receiving waterbody is classified as Class A recreational contact use, the presence of an active CSO discharge is sufficient to classify the segment as only "partially supporting" recreational uses. The commentors also state that because of the importance of drinking water supplies and the expense of treatment of these sources to communities, it does not make sense to wait until the MCL is exceeded to list an active drinking water source the 303(d) list. In other words, any drinking water source that is threatened should, in their opinion, be placed on the 303(d) list. One commentor stated that all of Iowa's lakes should be listed as impaired based on summer algal blooms that detract from their designated uses. For a complete list of the comments regarding the general groups of waterbodies that should be listed, please see Appendix A.

Response:
1. Active combined sewer overflows exist in about 15 communities throughout Iowa. The Department does not agree that a Class A water receiving a CSO discharge is sufficient to classify the waterbody as impaired and include it on the 303(d) list. If fecal coliform data were available that supported listing for such impairment

2. IDNR feels that current assessment methods are sufficient to identify Class C waterbodies with levels of contaminants that may exceed MCLs and/or HALs in the future. That is, Class C waterbodies with data that suggest a worsening trend, but that do not yet suggest "impairment" of Class C uses, are also added to the 303(d) list.

3. IDNR feels that adding all Iowa lakes to the 303(d) list due to aesthetically objectionable blooms of algae is inappropriate. Data from the ongoing statewide survey of 130 Iowa lakes conducted by Iowa State University suggests a wide range of chlorophyll values (a surrogate measure of suspended algae) and water transparencies, with trophic state index values ranging from the lower range of mesotrophic to strongly hypereutrophic. Lakes with high levels of chlorophyll and low water transparencies are candidates for Section 303(d) listing. The uncritical addition of all lakes to the 303(d) list would unnecessarily waste staff time and monetary resources that could be better utilized on waterbodies where data suggest actual impairment of designated uses.

V. WATERBODY-SPECIFIC COMMENTS

Several commentators submitted comments about the proposed delisting and listing of specific waterbodies. Due to the specific nature of these comments, they have been individually addressed below, and not summarized as in previous sections.

1. **Comment:** Yellow Smoke Park Lake should not be included on the 2002 303(d) list. The recently completed TMDL identified one small drainage that was delivering sediment through gully erosion. A sediment and water control basin has been constructed using the state's WSPF program with local funds. We believe the lake was originally placed on the list because 1) based on soil type, slope, and landuse, the watershed showed a high potential risk for sedimentation and 2) IDNR Biologists were unable to explain some poor years of fish growth. Yellow Smoke Park Lake should not be included on the 2002 303(d) list

Commentor: *Roger McCaffrey, Chairman, Crawford County Soil and Water Conservation District; Mike Peterson and Lance Nelson, Crawford County Conservation Board*

Response: Yellow Smoke Park Lake is included on Part 3 of the 2002 303(d) list. This part identifies those waterbodies where a TMDL has been completed, but where water quality standards have not been attained. While the needed work has already been completed, an assessment of the biological community has not yet been completed to verify improved conditions for the aquatic community. This assessment is scheduled for 2003.

2. **Comment:** Do not delist Little Spirit Lake or Upper Gar Lake from the impaired waters list. These lakes of the Iowa Great Lakes are designated as high quality waters in the Iowa Code, and therefore require higher standards for protection.

Commentor: *Concerned Citizens of Little Spirit Lake (68 signatures); Peggy McClintock*

Response: During the public comment period for the draft 2002 303(d) list, the IDNR investigated other means of assessing water quality in lakes. This is particularly difficult due to the lack of numeric water quality criteria for chlorophyll and nutrients. It was determined that Carlson's Trophic State Index can give a more accurate measure of water quality than in-lake concentration alone. The TSI values for chlorophyll-a and total phosphorous indicate hypereutrophic conditions in Little Spirit Lake. Based on these factors, Little Spirit Lake has been added to the 2002 303(d) list. The TSI values for Upper Gar Lake do not indicate the same hypereutrophic conditions as seen in Little Spirit Lake, and therefore has not been added to the 303(d) list.

3. **Comment:** We support the listing of Honey Creek, Wolf Creek, Five Mile Creek, and a portion of the Chariton River for low dissolved oxygen on the draft 2002 303(d) list. We would like the DNR to consider the following streams for addition to the 2002 303(d) list for low dissolved oxygen, based on sampling conducted by the Rathbun Land and Water Alliance.

Chariton River Tributaries	Chariton River
Brush Creek	"Upper" Chariton River
	"Middle" Chariton River

South Fork Chariton River Tributaries	South Fork Chariton River
Jordan Creek	"Upper" South Fork Chariton River
Nine Mile Creek	"Middle" South Fork Chariton River
Jackson and West Jackson Creeks	"Lower" South Fork Chariton River
South Fork Walker and Walker Creeks	

Commentor: *John Sellers, Vice President, Rathbun Land and Water Alliance*

Response: The DNR has evaluated the data from the Rathbun Land and Water Alliance, and have found that several additional tributaries to Rathbun

Reservoir should also be included on the 2002 303(d) list for low dissolved oxygen. These stream segments include the following: Chariton River (IA 05-CHA-0030_1), South Fork Chariton River (IA 05-CHA-0060_1 & 05-CHA-0060_2), Jackson Creek (IA 05-CHA-0063_0), Jordan Creek (IA 05-CHA-0062_0), and Nine Mile Creek (IA 05-CHA-0066_0).

4. **Comment:** We request the following waters remain on the impaired waters list until the necessary studies are completed to disprove that they are impaired:

Bays Branch	Big Marsh	Blackhawk Wildlife Area
Burt Lake	Carter Lake	Cedar Lake
Des Moines River	Don Williams Lake	Easter Lake
Elkhorn Marsh	Fisher Lake	Green Island Lake
Hendrickson Marsh	Iowa River	Lake Meyer
Little Clear Lake	Littlefield Lake	Lizard Lake
Marlene Park Pond	Mariposa Lake	Mississippi River
Muskrat Slough	Otter Creek Marsh	Ottumwa Lagoon
Pierce Creek Pond	Rice Lake	Roberts Creek Lake
Springbrook Lake	Sunken Grove Lake	
Sweet Marsh A,B,C & Reservoir		
Troy Mills Marsh	Union Slough	Walnut Creek Marsh
West Twin Lake	Williamson Pond	

We request the following waters remain on the list until water monitoring substantiates the best professional judgement that they are no longer impaired:

North Colyn Marsh	South Colyn Marsh	Lake Cornell
LaHart Area	Cardinal Marsh	Brown's Slough
Klum Lake	Riverton	Swan Lake (Johnson Co.)

Commentor: *Charles Winterwood, Chair, Iowa Chapter Sierra Club*

Response: A waterbody specific rationale for each waterbody that was removed form the 1998 303(d) list has been developed for each waterbody that was on the 1998 303(d) list but not included on the 2002 list.

5. **Comment:** We would like to request that Lake Geode be included on the 2002 list of impaired waters. Proposed hog confinements within the Lake Geode watershed threaten the water quality of the lake.

Commentor: *Tom and Sally Parrott*

Response: Data from the Iowa Lakes Survey by Iowa State University from 2000-2001 was evaluated using Carlson's Trophic State Index. Based on this index, Lake Geode has very low chlorophyll, good transparency, and low total

phosphorous. This index does not indicate a current impairment to the lake, or a declining water quality trend. Therefore, Lake Geode will not be included on the 2002 303(d) list.

6. **Comment:** I would like to request that Flint Creek in Des Moines County be included on the 2002 impaired waters list. Flint Creek has exceeded the water quality standard for indicator bacteria, sometimes by as much as 100 times the acceptable level. Flint Creek is designated a Class B (LR) water however, despite its use for primary contact recreation.

Commentor: *Phil Broder, Director, Des Moines County Conservation Board*

Response: Flint Creek (WBID IA 02-ICD-0020) in Des Moines County, is designated Class B(LR) in the Iowa Water Quality Standards. Because there is no class A use designation, water quality criteria for primary contact do not apply. The information received in this comment letter will be forwarded to the IDNR staff responsible for water quality standards.

7. **Comment:** We would like to request that data for three waterbodies be re-evaluated to determine impairment. Home Pond, Lake Morris, and Loch Ayr were included on the draft 2002 303(d) list as impaired by atrazine. A review of the data from the Syngenta Voluntary Monitoring Program indicates that the annual mean concentration for atrazine was not exceeded at any of these waterbodies. Based on this data, we would like to request that Home Pond, Lake Morris, and Loch Ayr are removed from the 2002 303(d) list.

Commentor: *Dennis Tierney, Ph.D., Syngenta Crop Protection, Inc., and Rick Robinson, Director, Environmental Affairs, Iowa Farm Bureau Federation*

Response: While the data from the Syngenta Voluntary Monitoring Program does not indicate a violation of the Iowa water quality standards for atrazine in these Class C waters, it does indicate a reason for concern. These three waterbodies are currently assessed as fully supported-threatened in Iowa's 305(b) database. The DNR may place waterbodies assessed as threatened on the 303(d) list, if there is a declining water quality trend or if it is expected that water quality standards will not be attained at the next listing. Therefore, Home Pond, Lake Morris, and Loch Ayr will all remain on the 2002 303(d) list, but the priority for these three waters will be changed from high to low.

8. **Comment:** The 2002 list does not list any segment of the Mississippi River for sediment or turbidity. EPA has provided IDNR, pursuant to the SAILORS consent decree, with data that supports listing the Mississippi River for these impairments. Under the terms of the decree, EPA agreed to consider these reports to be "existing and readily accessible data" that IDNR must consider in making its listing decision, and IDNR is to include a waterbody-specific rationale for its decision to either list or not list the Mississippi River for sediment and/or

turbidity. IDNR has not made such a determination and has apparently not even considered this data, in violation of federal law and the SAILORS consent decree.

Commentor: *Jerry L. Anderson, Midwest Environmental Justice Advocates*

Response: Please see the response to item #2 in Part III above.

VI. COMMENTS NOT RELATED TO THE PROPOSED 303(d) LIST

1. **Comment:** The Council encourages the DNR to conduct a review of state protocols for fish consumption advisories to be more protective of sensitive populations in the state.

Commentor: *Iowa Environmental Council*

2. **Comment:** There are stream segments not classified for drinking water than should be classified as Class C waterbodies. There is no formal procedure for classifying Class C waterbodies. Most Class C waterbodies were identified in the 1970 and 80's. If a utility's intake withdrew water directly from a stream segment, the segment was classified as a Class C waterbody.

We strongly urge:

- The re-assessment of surface waters in Iowa and their link to drinking water sources
- Re-evaluate the zone of contaminant influence for a drinking water source (only contaminants found within an area 300 feet upstream from a drinking water intake are considered impaired for drinking water, when it is well documented that a much larger section of the water body is contributing)
- Target monitoring to stream segments impacting drinking water
- Commit to a centralized database for water monitoring data.

Commentor: *Linda Kinman, Research/Regulatory Coordinator, Des Moines Water Works and Iowa Association of Water Agencies*

3. **Comment:** Our analysis and comments on the 303(d) list have been hampered by DNR's failure to produce its 305(b) report in a timely fashion. Without this information on the state of Iowa's waters, it is more difficult to judge the adequacy of the 303(d) list. The public has to have full confidence that the data considered in the 305(b) report has adequate time for review and correction.

Commentor: *Erin E. Jordahl, Director, Iowa Chapter, Sierra Club; Jerry L. Anderson, Midwest Environmental Justice Advocates; Rick Robinson, Director, Environmental Affairs, Iowa Farm Bureau Federation*

4. **Comment:** The 305(b) list must be separate and distinct from the 303(d) list in order to meet the credible data law requirements. Attempts to integrate these two lists will not meet this standard. The IDNR must make sure it has two

separate and distinct lists. Also, the 305(b) list needs to be based on numeric and quantitative assessments.

Commentor: *Rick Robinson, Director, Environmental Affairs, Iowa Farm Bureau Federation*

5. **Comment:** We are concerned about the large number of waters for which habitat alterations and exotic species have caused impairments. While we recognize that these waters are not impaired by pollutants, we would encourage IDNR to state its plan and commitment to dealing with these impairments in a timely manner.

Commentor: *Jerry L. Anderson, Midwest Environmental Justice Advocates*

6. **Comment:** IDNR should create wetlands assessment and criteria monitoring programs, to more appropriately deal with the listing and delisting of wetlands. The IDNR has had four years to begin the process of creating wetlands criteria and monitoring programs, but has not done so.

Commentor: *Erin E. Jordahl, Director, Iowa Chapter Sierra Club*

7. **Comment:** After looking at the list and the accompanying statement of methodology, it is clear the adequate comments cannot be made within the 30 day comment period currently established. The statement of methodology is replete with statements and assumptions that will require significant review and research on which to base adequate comments. Without the 305(b) report and the underlying data, it is virtually impossible to make comments on the 303(d) list. We respectfully request that the time for submitting comments to the draft 303(d) list be extended to 60 days after the issuance of the current 305(b) report.

Commentor: *Wallace L. Taylor, Attorney, Sierra Club*

8. **Comment:** It seems dramatic, but the logic is in place to list all of our lakes as impaired based on algal growth and excess nutrient loading and aquatic plant (macrophyte) decline. All of our lakes suffer extensive algal blooms in the summer that detract from their designated uses under Iowa Code, and this also affect our drinking water.

Commentor: *Jane Shuttleworth, President, Okoboji Protective Association*

Appendix A
Complete List of Comments by Issue

I. COMMENTS OPPOSING THE USE OF IOWA S CREDIBLE DATA LAW

1. **Comment:** It is vitally important that Iowa's Impaired Waters List be as comprehensive and complete as possible. The 2002 list is neither complete nor comprehensive at this point, due in large part to the data limitations imposed by the State Legislature in 2000 in the so-called "credible data law". These restrictions on data used to create the Impaired Waters List are not in compliance with federal listing requirements.

To correct this situation, and ensure Iowa is able to accurately address our priority water quality problems, we recommend the following:

- Do not remove waterbodies included on the 1998 Impaired Waters List simply because they fail to meet Iowa's restrictive "credible data" requirements. This includes at least 49 different impairments on 38 waterbodies in the state.
- Wetlands especially suffer from this restrictive data requirement. The 44 wetlands proposed form "delisting" should be included on the 2002 list. Because Iowa has failed to establish monitoring criteria for wetlands, the DNR should rely on "best professional judgement" to ensure we protect and improve our vital wetlands.
- The 2002 list should reflect all the data that is available to the DNR as required by the Clean Water Act and regardless of the restrictive requirements of Iowa's law. This would include
  - **The Iowa lakes Survey conducted by Iowa State University.** This comprehensive study provides some of the best information available on the condition of 132 Iowa lakes.
  - **Water bodies with repeated fish kills.** Such waterbodies must be considered biologically impaired. The DNR maintains data on such waterbodies, and this information should be consulted as the DNR prepares Iowa's Impaired Waters List.

Commentor: *Form letter (see Appendix B)*

2. **Comment:** We are concerned that in some cases Iowa's 303(d) list is not in compliance with all federal listing requirements. As a result, not all surface waters that are known to be impaired and in need of restoration have been included on Iowa's list. Of particular concern are the proposed listing restrictions resulting form the enactment of "credible data" legislation (SF 2371) by the 2000 Iowa General Assembly. We understand the difficulty the "credible data" law presents to DNR, but it is essential that Iowa's list conform with all federal listing requirements.

The Federal Clean Water Act specifies that waters cannot be removed from a state's 303(d) List of Impaired Waters without specific and sufficient evidence that those waters are currently meeting water quality standards. The absence of

data meeting the state “Credible Data” requirements is the only justification given for the removal of 49 impairments on 38 waterbodies. The delisting of waters on the current list (1998) impaired waters list based only on the absence of data meeting the state “credible data” requirements violates federal law. DNR and/or EPA reviewed waters on the current list during the last listing cycle and it was determined at that time that there was sufficient data and other information to support the listing. Since no new data or information substantiating that the listing was in error or that demonstrates that the waterbody is no longer impaired has been provided, these 49 impairments on 38 waterbodies should remain on Iowa’s 2002 Impaired Waters List.

Some of the waterbodies proposed for removal based only on the absence of “Credible Data” actually have scientific data that supports the listing. Several waterbodies listed as impaired by nutrients or organic enrichment are proposed for removal based on “No Credible Data” despite the fact that data collected by the ISU lake study in 2000 and 2001 verifies high nutrient levels.

Best Professional Judgement (BPJ) of DNR biologists is the justification given for the delisting of 29 impairments on 27 waterbodies. While some of these removals may be justified, in many cases additional data or other documentation is needed to support delisting.

New conditions are the justification given for the delisting of 22 impairments on 17 waterbodies. Waterbodies proposed for removal based on “new conditions” should remain on the impaired waters list until it can be demonstrated that the waterbody’s “New Conditions” now support all designated uses.

Flaws in the analysis of data used for the 1998 listing is the justification given for delisting 15 impairments on 15 waterbodies. Waterbodies proposed for delisting based on “Flaws in Analysis” should be re-evaluated to determine whether the data is truly flawed. These waterbodies should be removed from the 2002 lists only when it is clearly established that an error was made in the original listing.

New water quality data and assessments showing no impairment is the justification for the removal of 12 impairments on 12 waterbodies. Waterbodies proposed for removal based on “New Data” should remain on the list until the new data clearly demonstrates that the waterbody is no longer impaired.

Modeling data showing no impairment is the justification for the delisting of 16 waterbodies (primarily wetlands) impaired by siltation. These waterbodies should not be removed from the list based only on the results of watershed modeling without field verification of the modeling results.

Two waters impaired for aquatic plants were delisted based on “biologist BPJ” and three waterbodies impaired by nutrients were delisted based on “Flaws in Analysis” in submittal letters to EPA in 2001 and 2002. It would appear this action was taken without the opportunity for the public to provide comments. Additional documentation is required to justify removal of these five waterbodies from the 2002 Impaired Waters List and the public should be given the opportunity to provide comments. In the future, Iowa DNR should provide public notice and an opportunity for public comment prior to a submittal letter to EPA requesting a waterbody be delisted.

The decision to add waterbodies to the 2002 list should be based on evaluation of all data and information available to the DNR from all sources, including best professional judgement. If it is determined that a waterbody is impaired, federal law requires that it must be listed, regardless of whether or not the data meets the "credible data" requirements established in Iowa law.

Wetlands in Iowa are greatly affected by the "credible data" requirements because Iowa currently does not conduct regular monitoring of wetlands and has not established criteria and assessment protocols specifically for wetlands. Therefore 44 of the 56 wetlands on the 1998 list are proposed for removal form the 2002 list. Since the only assessment information available for most wetlands in Iowa is "best professional judgement" of wildlife experts, the listing of wetlands on the 2002 list must rely on the available information.

We have completed a review of data from the first two years of the Iowa Lakes Survey conducted by Iowa State University in 2000 and 2001. We are concerned that data from the first two years of the IDNR-sponsored lake monitoring study was not considered in determining which lakes should be included on the proposed 2002 list. While the completeness criteria for lake studies in DNR's Methodology for developing Iowa's 303(d) list specifies that as least three years of data is necessary for an accurate lake assessment, many of these lakes have historical data and other information that can be used in conjunction with data from the recent lakes study for an accurate assessment.

In addition to the recent ISU lake study, previous lake studies conducted by ISU in 1979 and 1990-91 provide additional data on water quality in many of the lakes covered by the recent survey. These previous lake studies are valuable in establishing water quality trends and include assessments of the uses at the time the survey was conducted.

Our review of monitoring data used to assess support of Class A primary contact recreation uses indicated that some of the bacteria data from the USGS NAWQA study in Eastern Iowa was not used to evaluate support of recreational uses. Apparently the data was not used by DNR because from 1997 to 2001, the USGS study used *E. coli* bacteria data and did not include an analysis of fecal coliform bacteria. While fecal coliform bacteria is the indicator bacteria in Iowa's current water quality standards, *E. coli* is recognized by EPA and IDNR as a better indicator for impairment of recreation uses and Iowa is currently in the process of switching from the current fecal coliform st6andard to the *E.coli* standard. We strongly object to the exclusion of this data from the 305(b) assessment and the 303(d) listing process.

Commentor: *Iowa Environmental Council*

3. **Comment:** We understand that DNR is using 2000 and 2001 lake data from the DNR Lake Survey conducted by Dr. Downing at ISU. Are we mistaken in the understanding that the DNR is not considering statewide lake data from their previous lake surveys conducted in the 1970's and 1990's? Certainty of data requires a long term commitment to it to be able to distinguish between trends, patterns, and insignificant variables. Therefore, all available data should be considered.

Commentor: *Jane Shuttleworth, President, Okoboji Protective Association*

4. **Comment:** The criteria of "Best Professional Judgement" in the Credible Data Law must only apply when listing impaired waters on the 2002 list and not when delisting impaired waters. Several waterbodies have been removed from the 2002 list based on the statements of State Wildlife and Fisheries Biologists. Nowhere is there an indication that the biologists presented credible data to verify that the water is no longer impaired and should be removed from the list. The biologists used their "best professional judgement (BPJ)".

Iowa must be more proactive in evaluating waters of the state. Not having enough data should not be a reason to assume a waterbody is not impaired. There is always the opportunity to prove the data wrong, but if not data is used, public heath may be at risk.

In protecting the waters of Iowa it is imperative that "Sound Science" and "Best Professional Judgement" both be a part of the evaluation process. The "Credible Data Law" has tied the hands of professionals working to protect Iowa's waters. This law must be amended to allow professionals to use all of the tools in their toolbox – sound science and their BPJ.

It is not in the best interest of public heath to exclude data more than five years old, trending data must also be part of the equation. Changes to the environment and public heath may evolve over many generations. Trending data must be part of the evaluation process and trends are not quantified by a time-line.

A stakeholder group should be developed to identify and recommend a process for delisting waterbodies. A stakeholder group should be developed to identify and recommend changes to the credible data law to include provisions for best professional judgement, sound science, and inclusion of data beyond five years.

If approved, 61 waterbodies previously identified as impaired due to siltation will be removed from the 1998 list. Siltation transports nutrients, pesticides, and bacteria, all of the highest ranked impairments to Iowa's water resources. A stakeholder group should be developed to identify and recommend a process for delisting waterbodies. The 2002 delisting of waterbodies impaired by siltation, nutrients, and bacteria should be re-evaluated.

Commentor: *Linda Kinman, Research/Regulatory Coordinator, Des Moines Water Works*

5. **Comment:** The federal CWA specifies that waters may not be removed from a states 303(d) list without specific and sufficient evidence that those waters are currently meeting water quality standards. The absence of data meeting the state "credible data requirements was the only justification given for the removal of 49 impairments on 38 waterbodies. The delisting of waters on the current (1998) list based only on the absence of data violated federal law. Waters on the current list were reviewed by IDNR and/or EPA during the last listing cycle and it was determined at that time that there was sufficient data or other information to support the listing. Since no new data of information substantiating that the list

was in error or that demonstrate that the waterbody is no longer impaired have been provided, these 49 impairments on 38 waterbodies should remain on the 2002 list.

In addition, 29 impairments on 27 waterbodies were removed from the 2002 list based solely on best professional judgement of a wildlife or fisheries biologist. What we are led to believe then is that the BPJ of a biologist is not "credible data" to add an impairment to the list, but it is "credible data" to remove an impairment from the list. This inconsistency is evident many times throughout the list of impaired waters proposed for exclusion from the 2002 list. Besides being an obvious double standard, we believe this inconsistency is in fact illegal. If the best professional judgement of a biologist is not sufficient to add an impairment tot he list, it should likewise not be sufficient to remove an impairment form the list.

Iowa currently does not conduct regular monitoring of wetlands and has not established criteria and assessment protocols specifically for wetlands, consequently these wetland areas are negatively affected by Iowa's "credible data" requirements. 44 of the 56 wetlands on the 1998 list are proposed for removal from the 2002 list. These impairments still exist. Since the only assessment information available for wetlands in Iowa is BPJ of wildlife experts, the listing of wetlands on the 2002 303(d) list must include all of the wetlands listed on the 1998 list.

Since Iowa does not devote enough human or financial resources to official, "credible" water monitoring, we must rely on other sources, including best professional judgement of qualified personnel, and trained volunteer monitors. The EPA considers data collected by such means to be satisfactory and requires states to incorporate that information in formulating the 303(d) list. While the states are indeed allowed to "raise the bar" above that required by federal regulations, states may not do so in a way that 1) contravenes Congressional legislative intent, and 2) has the actual effect of weakening federally established standards. If the IDNR refuses to use this valuable information, many impaired waters will not be acknowledged and thus will not receive the attention and help they need.

Commentor: *Ryan Maas, Prairieland Watershed Alliance*

6. **Comment:** The proposed 2002 list removes 44 impairments based on the impact of Iowa's "credible data" law, because they were based on the "best professional judgement" (BPJ) or IDNR staff. Removing these waters is wrong for two reasons. First, the BPJ of IDNR professionals is the best and sometimes only way to determine violations of the criteria. Federal regulations required that IDNR consider all "existing and readily available water quality related data and information" to develop the 303(d) list. Such "information" would certainly include the judgement of relevant officials that these waters are not meeting the standards. The failure to consider this data violates federal law.

Moreover, no waters that are on the 1998 list should be removed without specific and sufficient evidence that those waters are not meeting the water quality standards. The only way an impaired segment may be removed from the

list is by meeting the good cause requirements of 40 CFR 130.7(b)(6)(iv). The waterbody may not be removed from the list simply because the previous listing decision was based on BPJ. It may be delisted only upon a showing of new data or information establishing a lack of impairment. In sum, the list is flawed because it removes waters based solely on the fact they were listed due to BPJ, and it is flawed because it fails to consider listing any new waters based on BPJ.

Also, for this listing cycle, IDNR has explicitly refused to consider available data, such as the results of most volunteer water monitoring and any data that does not meet stringent "completeness criteria" regarding number of samples needed. In addition, IDNR indicates that fecal coliform bacteria test data will only be considered from "flows not materially affected by surface runoff". This exemption of data from the times when greatest contamination is expected is both bad science and a violation of the Clean Water Act. IDNR failed to solicit and review existing and readily available data from sources such as the USGS and the USF&WS. The IDNR must consider data such as this in its listing decision. Moreover, IDNR refuses to list any water impaired by "illegal or unauthorized releases of manure or other toxic substances". The Clean Water Act and federal regulation required the listing of all waters impaired by a pollutant, and do not allow such and exemption. IDNR should review its fishkill database and list waters with repeated fish kills.

The 2002 list removes some impairments due to "insufficient credible data". The credible data restrictions of the listing methodology require IDNR to disregard data more than five years old. Thus, IDNR has taken waters off the list NOT because they now have "new data" indicating a lack of impairment, but rather because the data that indicated an impairment is now stale under the terms of the credible data law. This approach violates federal law and the SAILORS consent decree. Moreover, if the Iowa legislature is going to require this level of qualitative and quantitative data, it must fund a comprehensive monitoring program adequate to deliver the necessary data.

Many waters have been removed from the list solely because of the results of watershed modeling. It cannot be "good cause" to remove an impaired water solely because modeling indicates it ought not be impaired, if observations indicate that it is. Certainly federal regulations allow for delisting if "more sophisticated water modeling" indicates a lack of impairment, but surely only if the original listing was also based on modeling data. More evidence should be required before delisting.

Many waterbodies have been delisted because the best professional judgement of IDNR agents now indicates that the water is no longer impaired. While this type of evidence must be accepted, IDNR should look carefully at whether or not it really proves the water is no longer impaired.

Commentor: *Jerry L. Anderson, Midwest Environmental Justice Advocates*

7. **Comment:** We believe that the credible data law is illegal and violated federal law. The specific violations are as follows:

- Data more than five years old is presumed not to be credible. There is no reason why data more than five years old would not be credible per se. This is purely an arbitrary requirement.
- Data collected by anyone other than the DNR, professional designee, or qualified volunteer, is considered not credible. There is no logical or scientific justification for this requirement.
- The credible data law states that a waterbody shall not be placed on the 303(d) list if the impairment is caused solely by violations of a NPDES permit or stormwater permit. The CWA recognizes two sources of pollution, point source and nonpoint source pollution. The Act also requires states to adopt water quality standards for impaired waters without distinguishing between the two sources of pollution. The water quality standards are the basis for the 303(d) list.
- The credible data law states that a waterbody shall not be placed on the list if an impairment may be abated by existing effluent limits or other pollution control measures. This clearly violates the CWA. The CWA requires that if a waterbody is impaired it must be on the 303(d) list.
- The credible data law states that a water designated as impaired in the 305(b) report need not be on the 303(d) list. This clearly violates the CWA. All impaired waters that do not meet water quality standards are to be included on the 303(d) list. The same section of the law then says all data need not be used in developing the 303(d) list. This includes the following: data from the Iowa Lakes Survey, fish kill data, and monitoring data for pesticide contamination of drinking water sources.
- The credible data law also disapproves of using narrative standards vis a vis numerical standards. There is no basis for this position. Many types of pollution do not have numerical standards. As previously noted, the CWA requires that water quality standards be based on all types and sources of pollution.

The use of Iowa's credible data law has resulted in the removal of waters form the 1998 impaired waters list without sufficient justification. The federal CWA states that waters cannot be removed from a state's 303(d) list without specific and sufficient evidence, "good cause", that those waters are currently meeting water quality standards. However, the credible data law is not good cause to remove waterbodies from the 303(d) list.

Unless the IDNR can show that new, more accurate data proves that publicly owned wetlands should not be on the 303(d) list, those 44 wetlands proposed for removal should stay on the 2002 list. When the EPA put the wetlands on the 1998 list, the IDNR stated that the wetlands did not belong on the list because they are currently assessed by lake criteria, which is inappropriate. Until assessment criteria and monitoring programs are created for wetlands, best professional judgement, the only assessment information currently available for wetlands, should be used.

Commentor: *Erin E. Jordahl, Director, Iowa Chapter Sierra Club*

8. **Comment:** I am concerned about the Impaired Waters List under consideration by the DNR. The proposed 2002 list is much shorter than the 1998 list- not because there is any evidence of better water quality in the waterbodies set to be removed from the list, but because of a so-called "credible data" law passed by the Iowa legislature 2 years ago.
A shorter list would be wonderful if there were evidence that once-polluted bodies of water were now clean. However, my understanding is that DNR proposes to delete many waterbodies form the list merely because you lack the information to meet the "credible data" requirements.

It is my understanding that the federal Clean Water Act prohibits deleting a body of water form a state's Impaired Waters List in the absence of specific evidence that the body of water in question meets water quality standards. I hope that when the department finalizes this year's list, no bodies of water listed in 1998 will be missing unless data shows that the body of water is no longer impaired.

If evidence shows that a waterbody has been polluted in the past, common sense says it is not prudent to take that body of water off an Impaired Waters List unless evidence exists to show marked improvement in water quality.

Commentor: *Laura Belin*

9. **Comment:** I have a real concern about the new 2002 Impaired Waters List resulting form the state's so called "credible data law" passed in 2000. The new list does not reflect the reality of Iowa's waterbodies. The waters that have been delisted" have not changed in the least from their condition of a year ago, in fact may have deteriorated further. It would seem appropriate to rework the impaired list to provide the public with a true picture of Iowa's troubled waters.

Commentor: *Alvin F. & Jeannette M. Bahlmann*

10. **Comment:** A number of stream, lake, and wetland areas are proposed to be delisted from Iowa's Impaired Waters List. If that were because they are no longer impaired it would be cause to celebrate. However, it appears that many of them are to be delisted merely because there has been no additional "credible data" that they are impaired since the EPA first listed them. Please do not delist waters unless they can be shown to be no longer impaired. That will require testing, and more than just once.

Commentor: *Steven D. Lekwa, Director, Story County Conservation*

II. COMMENTS SUPPORTING THE USE OF IOWA S CREDIBLE DATA LAW

1. **Comment:** We believe Iowa's 2002 Section 303(d) list of impaired waters appears to be a thoughtful implementation of Iowa's scientifically based Credible Data law. We believe this law provides direction for inclusion on the list pursuant to credible, scientific monitoring data. We believe the 2002 list appears to represent a faithful implementation of Iowa's Credible Data law. The 158

waterbodies included on Iowa's 2002 list appear to be listed for scientifically measured criteria in quantities inconsistent with applicable water quality status.

Commentor: *Carol Balvanz, VP Public Policy, Iowa Cattleman s Association*

2. **Comment:** We are pleased to see the application of the new credible data law to this listing process. Federal law does not prohibit the application of this law by the state of Iowa. In fact, the placement of a waterbody on the impaired waters list without the use of credible data would likely be subject to legal challenge.

In general, it appears that the DNR is following the intent of the credible data law and for the most part is only listing those waters for which scientifically valid chemical, physical, or biological monitoring has been collected under a scientifically accepted sampling plan. There are some exceptions however, and these are as follows:

- We are concerned with the Trophic State Index (TSI) of 80 being used to determine if a lake is impaired, and therefore listed, and whether this satisfies the credible data test. This concern is due to limited supporting information provided by the IDNR for the basis of the decision to use TSI 80. Additionally, while we understand this is a "first cut" from the IDNR, it was not supplemented with a specific plan as to how the department will determine the appropriate TSI or another standard criteria. In the future, without that plan, a TSI of 80 could become more than a guidance number. Therefore, this number should not be used as a standard due to lack of credible supporting data.
- The inclusion of the Part Two Waterbodies (waters impaired by pollution, but not impaired by one of more pollutants) in the 303(d) list raises serious concerns. Virtually all of these waters are on the list due to violations of narrative water quality standards. After the review of the 305(b) report, it appears that best professional judgement is applied to determine if these waters should be listed. It seems clear that if another staff person were to consider the same information, an entirely different outcome may result. This points towards best professional judgement being applied, not the use of credible data. Numeric criteria are necessary to prevent the use of best professional judgement. These waters must be removed from the final 303(d) list until data is sufficient to place them on the listing of waters for further investigation, or the state risks violation of the credible data law.

We support the department's decision no to list specific waters that were included on the 1998 impaired waters list. The use of more recent data, recognition of flaws in the original analysis, and development of new conditions are sufficient factors in supporting a decision not to list these waters. The department should undergo any necessary documentation required by EPA Region VII to formally not list these waterbodies. It also helps the state prioritize limited resources for waters with more immediate needs.

Commentor: *Rick Robinson, Director, Environmental Affairs, Iowa Farm Bureau Federation*

III. COMMENTS ON THE METHODOLOGY USED TO DEVELOP THE 303(d) LIST

1. **Comment:** The DNR's methodology for developing the 2002 303(d) list states that fish kills caused by an "illegal or unauthorized release of manure or other toxic substances" will not be considered for Section 303(d) listing of TDML development. DNR states that "impacts form this type of fish kill will be addressed through DNR's enforcement procedures." There is no logic to excluding a waterbody from the 303(d) list because the activity that caused the pollution is illegal. Impairment is impairment, regardless of the source. Where waterbodies are impaired due to repeated illegal discharges of manure or other pollutants, as evidenced by repeated fish kills, it is clear that current management practices and enforcement are not effective. What's more, that same IDNR methodology document states on page 2 that, "Historically, Iowa has listed impaired waterbodies regardless of whether the pollutant/pollution source(s) can be legally controlled or acted upon by the State of Iowa. This methodology is consistent with that history." These are directly incongruous statements in the same document that greatly reduce confidence in the methodology of the DNR. We believe that waterbodies that have suffered repeated fish kills are indeed impaired and must not be removed from the 2002 list.

Commentor: *Ryan Maas, Prairieland Watershed Alliance*

2. **Comment:** The DNR's methodology for developing the 2002 303(d) list states that fish kills caused by an "illegal or unauthorized release of manure or other toxic substances" will not be considered for Section 303(d) listing of TDML development. DNR states that "impacts form this type of fish kill will be addressed through DNR's enforcement procedures." There is no logic to excluding a waterbody from the 303(d) list because the activity that caused the pollution is illegal. Impairment is impairment, regardless of the source. Where waterbodies are impaired due to repeated illegal discharges of manure or other pollutants, as evidenced by repeated fish kills, it is clear that current management practices and enforcement are not effective. Our analysis of fish kill data for Iowa identified several waterbodies with repeated fish kills that should be included on Iowa's 303(d) list for impairment of aquatic life uses.

The DNR's methodology for developing the 2002 303(d) list states that waterbodies with evidence of impairment that do not qualify for inclusion on the 303(d) list will be placed on a separate list for further investigation. It is our understanding that DNR is maintaining this list, however, this list was not provided to the public for comment. The Council requests that this list be made available to the public as soon as possible.

We do not support moving any waterbodies from the current (1998) list of impaired waters to this list for further assessment. We suggests that DNR conduct assessment of listed waterbodies where the impairment is in question

prior to beginning development of TMDL's. If the assessment shows the waterbody is not impaired, it can be removed from the list during the next listing cycle. Where uncertainty exists about whether a waterbody should be added tot he Impaired Waters List, the Council supports including the waterbody on the list for further investigation if, at a minimum, there is a firm commitment to complete this additional assessment work prior to the next listing cycle.

Commentor: *Iowa Environmental Council*

3. **Comment:** This comment regards the consent decree entered in a federal lawsuit against the EPA, No. C 94-134 and C 99-30, in the Northern District of Iowa. This decree is very specific in requiring that certain existing and readily available data listed in the decree relating to the Mississippi River be considered in drafting the 2002 303(d) list. There is no indication in the proposed 303(d) list nor the accompanying statement of methodology that indicates this statement was considered in drafting the list.

We do not support moving any waterbodies from the 1998 impaired waters list to the "list of waters in need of further investigation". There is not an enforcement mechanism to make sure that further monitoring takes place to determine whether a waterbody is in fact impaired. The IDNR should assess a listed waterbody where impairment is in question prior to beginning TMDL development, and if the assessment shows the waterbody is not impaired, it can be removed from the impaired list during the next listing cycle. A waterbody should only be included on the list for further investigation if there is a firm commitment to complete additional assessment work prior to the next listing cycle.

Commentor: *Erin E. Jordahl, Director, Iowa Chapter Sierra Club*

4. **Comment:** IDNR has listed separately those waterbodies for which an impairment has been noted, but the cause has not been identified. Instead of doing a TMDL for these segments, IDNR will perform data collection and analysis to determine the cause of the impairment before the next listing cycle. While we appreciate DNR's intention to test and analyze these waters, it appears that this separate list is not necessary. DNR may perform additional testing and analysis on any of the 303(d) list. The only reason the cause would be relevant for listing purposes is if the source is not a pollutant. If the DNR ultimately determines that the problem is habitat alteration instead of a pollutant, the water can be moved to the Part Two list. Otherwise, establishing the list merely delays the process for two years. It would seem that the IDNR may have difficulty identifying the cause of the impairment for many of the waters listed until they begin the TMDL process. Thus, the Part Five list could become very large indeed.

Federal regulations indicate that the priority ranking should be based on the "severity of the pollution and the uses to be made of such waters". Thus, we support giving high priority to waters with "imminent human heath or aquatic heath problems" and those with impacts on endangered or threatened species. However, IDNR also bases its prioritization on whether there is adequate data

and whether there is local support for a TMDL. These factors do not comport with federally required criteria.

Commentor: *Jerry L. Anderson, Midwest Environmental Justice Advocates*

IV. GENERAL GROUPS OF WATERBODIES THAT SHOULD BE LISTED

1. **Comment:** Iowa currently has 13 municipal utilities with combined sewer overflow (CSO) permits that allow discharge of raw sewage into our during wet weather. The Council strongly opposes the removal of these waters from Iowa's list of impaired waters because of the obvious continuing impact n recreational uses caused by these CSO's. The Council strongly believes that where the receiving water is designated for Class A recreational contact use, the presence of an active CSO discharge is sufficient to classify the segment as only partially supporting recreational uses, at best.

Two of the major contaminants of concern in Iowa drinking water sources are pesticides and nitrate. Currently, in order to list a drinking water source for atrazine, DNR requires that that average of all samples over a year exceed the MCL level. For nitrate, 15% of the samples collected must exceed the MCL over the 2 year reporting period. The requirement that 15% of the nitrate samples exceed the MCL prior to assessing the drinking water source as impaired for nitrate seems extreme. Pesticide levels tend to be higher in the spring and significant exposures may occur to the public even though the yearly average does not exceed the MCL. This is of particular concern to pregnant women and young children.

The council is concerned that the listing criteria applied to these contaminants is too stringent and we would like to see a more proactive approach to the listing of drinking water impairments. One way to accomplish this without changing the assessment protocols would be to include active drinking water sources on the list when they are assessed as threatened and not wait until they are assessed as impaired. Without a more aggressive approach to protect drinking water sources the listing of a drinking water source may occur only when the problem is already so serious that the water supply source can no longer be safely used without expensive treatment.

The Council recommends that Class C waters that are actively being used as a drinking water source should be listed if raw (untreated) water exceeds MCL or HAL levels on a regular basis. Because of the importance of drinking water supplies and the expense of treatment or replacement of these sources to communities, it does not make sense to wait until the MCL is exceeded to list the waterbody on the 303(d) list.

For water supply sources that do not have monitoring data for pesticides in the raw water source, the Council recommends that the water source be considered for inclusion on the impaired waters list if Safe Drinking Water Act (SDWA) compliance monitoring finds pesticides are present at levels exceeding one-half the MCL or HAL in finished water. This listing should apply to all public

drinking water sources that are actively being used as either the primary or backup drinking water supply source.

The current level of assessment of drinking water sources in Iowa is not appropriate considering the critical importance of safe drinking water tot he heath of all Iowans. The Council recommends that additional monitoring and assessment be initiated to better address these important drinking water sources.

Commentor: *Iowa Environmental Council*

2. **Comment:** Iowa currently has 15 municipal utilities with combined sewer overflow (CSO) permits that allow discharge of raw sewage into our rivers following rainfall. These river segments affected by CSO's should be listed.

All surface and drinking water sources should be listed where monitoring indicates pesticides are present at levels exceeding one-half the maximum contaminant level (MCL) or heath advisory level (HAL) in the finished drinking water. In addition, waterbodies should be listed where individual raw water samples exceed the MCL or HAL level on a regular basis.

Commentor: *Form Letter (see Appendix B)*

3. **Comment:** The logic is in place to list all of our lakes as impaired based on algal growth and excess nutrient loading and aquatic plant decline. All of our lakes suffer extensive algal blooms in the summer that detract from their designated uses under Iowa Code, and this also affects our drinking water.

Commentor: *Jane Shuttleworth, President, Okoboji Protective Association*

Appendix B
Form Letter Commentors

Denise O'Brien, Coordinator, Women Food and Agriculture Network;
Danielle M. Wirth, Ph.D., Consultant – Environmental Horizons;
Randy Poole;
Whitney Stanford;
Elizabeth Stone;
Robert F. Etzel, Director, Tama County Conservation Board;
Emily Zabor;
Connie Mutel;
Steve Veysey, Fisheries and Environmental Protection Coordinator, HFFA;
Nathan James Lein;
Debbie Neustadt;