

**PUBLIC PARTICIPATION RESPONSIVENESS SUMMARY  
FOR THE 2004**

**SECTION 303(d) LIST OF IMPAIRED WATERS**

**IOWA DEPARTMENT OF NATURAL RESOURCES  
ENVIRONMENTAL SERVICES DIVISION**

**May 2005**

## 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 February 23, 2005 in the *Des Moines Register*. In addition, notice of the availability of the list was sent to interest groups and a network of statewide news organizations. Public comments were accepted from February 21 through April 15, 2005.

Comments were provided to the IDNR by six individuals or organizations. 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. The list of individuals and organizations that commented are included in Appendix A.

The comments received are grouped into the following five categories:

- Integrated Report Format
- Credible Data Law
- Integrated Report Methodology
- Waterbody Specific Comments
- Other Comments

Comments were also received from the Environmental Protection Agency, Region 7. A response to these comments was prepared and included with the formal submittal of the 2004 303(d) list to EPA.

Iowa's 2004 Draft 303(d) list included 211 waterbodies. As a result of public comments, three waterbodies have been added to the impaired waters list (Lake Cornelia, Lake Darling, and Five Island Lake). Of these, one was incorrectly omitted from the draft list and the other two were added to the list based on more recent water quality information. Five waterbodies were removed from the draft list (Mississippi River at Clinton, Middle Fork of South Beaver Creek in Grundy County, Bear Creek in Story and Hamilton Counties, Buffington Creek in Louisa County, and the general use segment of Milford Creek in Dickinson County). The impairment on the Mississippi River segment is caused solely by a point source discharge and is therefore not suitable for TMDL development. The other three waterbodies should not have been included on the draft list due to changes in the assessment methodology for 2004.

Given these changes to the draft list, Iowa's Final 2004 List of Impaired Waters (Integrated Report Category 5) includes 209 waterbodies.

## **Comments on the Integrated Report Format**

- 1. Comment: IDNR's use of the Integrated Reporting format:** Based on a review of Iowa's 2004 draft list and the methodology used to prepare this list, the integrated reporting format (which combines 305(b) assessment and Section 303(d) listing) is an improvement over the previous format [separate Section 305(b) assessments and Section 303(d) listing].

**Response:** IDNR appreciates the positive feedback on the new (Integrated Report) format first recommended by U.S. EPA for the 2002 reporting/listing cycle. IDNR intends to continue to use this format in the future to meet requirements of Sections 305(b) and 303(d) of the Clean Water Act.

**Commentor: Iowa Environmental Council**

- 2. Comment: Separate and distinct 303(d) and 305(b) reports:** The 305(b) list must be separate and distinct from the 303(d) list in order to meet the requirements of the credible data law and information on the draft 2004 list of impaired waters should clearly distinguish 305(b) information from 303(d) information. IDNR's use of EPA's integrated reporting format, as presented to all states via non-binding guidance, may be in violation of Iowa's credible data law which requires IDNR to "develop and maintain three separate listing including a Section 303(d) list, a section 305(b) report, and a listing for which further investigative monitoring is necessary" (IAC, 455B.195). The commentor is concerned that integrating the 305(b) report and 303(d) list will create confusion over which categories are on, or are not on, the state's Section 303(d) list. In addition, they feel that the large number of integrated report categories (11) creates uncertainty about which waterbodies are impaired for purposes of Section 303(d) listing and that such a format will likely not be particularly useful or meaningful. If, however, having eleven categories help targets resources, then they can support this format. The commentor admits that these issues may seem minor but that deviations from the intent of the credible data law represented by the integrated reporting format could lead to unforeseen regulatory compliance issues and ground for future activist lawsuits.

**Response:** Section 305(b) reporting has never been "separate and distinct" from Section 303(d) listing in Iowa. The intent of Section 305(b) reporting is to provide as comprehensive a picture as possible of a state's progress in meeting water quality goals. Thus, the waterbodies on a state section 303(d) list or other list (e.g., waters in need of further investigation) are, by definition, a subset of the waters assessed for purposes of Section 305(b) reporting. Three "separate" lists are still identified by the IDNR. The 305(b) Water Quality Report includes all waters of the state, and subsequently all categories of the Integrated Report. However, the impaired waters list (303(d) list) is represented by those waters included in Category 5 of the Integrated Report. A list of waters in need of further investigation, or follow-up list, is represented by the waters included in Categories 2b and 3b.

IDNR admits, however, that improvements can be made to clarify which categories of the integrated report are related to these three lists; Section 305(b), Section 303(d), and the waters in need of further investigation. This lack of clarity has been

a source of confusion both within IDNR and for stakeholders during review of the draft 2004 integrated report.

**Commentor: Iowa Farm Bureau Federation**

- 3. Comment: Confusion resulting from attempts to compare the 2002 list with the draft 2004 list.** The commentor has concerns over the way IDNR presented the Section 303(d) list to the public and the resulting confusion this caused as the media and public tried to understand the significance of the draft 2004 list by comparing it to the previous (2002) list. They state that IDNR could have done a better job explaining the changes in the listing format and explaining how to correctly compare the two lists.

**Response:** IDNR admits that information initially distributed about the numbers of waters on the draft 2004 list were confusing and perhaps even misleading. This resulted, in part, from the change to the U.S. EPA-recommended Integrated Reporting format and problems with comparing this new format to that used for Iowa's 2002 Section 303(d) list. IDNR will make special efforts in the future to avoid this type of confusion and present the information in a clear and effective manner.

**Commentor: Iowa Environmental Council**

- 4. Comment: Suggested naming convention to improve understanding.** The commentor suggests that, to improve general understanding of the "integrated report", the term "impaired waters list" be used to refer to waters in IR Categories 4 and 5, and also suggests that the term "TMDL list" be used to refer to impaired waters where a TMDL needs to be developed (IR Category 5).

**Response:** IDNR feels that this suggestion has merit and will help to better communicate the status of Iowa's water quality. This may be accomplished by incorporating these suggested distinctions between "impaired waters list" and "TMDL list."

**Commentor: Iowa Environmental Council**

- 5. Comment: IDNR should make assessment information available without the need for end-users in the public to have specialized database software.** The commentor expressed concern that, in order to view the 2004 water quality assessments via the IDNR's web site, the user must have Microsoft Access 2000 or a later version of this software. The commentor feels that this software is not a commonly-used software package for the general public and thus greatly limits public access to this information. The commentor requests that IDNR make its assessment information available in a format more useable by the public.

**Response:** IDNR views the web availability of the 2004 version of its Section 305(b) assessment database through MS-Access as an improvement over the previous practices of providing this information in hard-copy form or through a number of MS-Excel spreadsheets. The web version of IDNR's 2004 assessment database

presents assessment information in a more comprehensive, logical, and detailed fashion than is possible with either hard copies or Excel spreadsheets. While distribution of assessment information via hard-copies or Excel spreadsheets remains—and will remain—an option, IDNR intends to continue to make its assessment database available via the IDNR web site to assist reviewers of future Section 303(d) lists. IDNR, however, appreciates this comment and will explore the possibilities of making the assessment database web-available without the need for specialized software by the reviewer.

**Commentor: Iowa Environmental Council**

6. **Comment: Integrated Report Category 4d: Waterbody assessed as “impaired” due to a fish kill where enforcement action was taken to address the source of a kill: no TMDL required.** The commentor expressed the following questions regarding Category 4d: What happens to the listing of the waterbody in this category? What is the impact of listing a waterbody in this category? How does a waterbody come off this list? What state resources are further employed on waterbodies in this category?

**Response:** As stated in IDNR’s assessment methodology, all waters affected by a fish kill, whether caused by a known pollutant or a suspected pollutant, are assessed as “impaired” for purposes of Section 305(b) assessments. Those kills where a cause was identified are placed into either Category 4d (responsible party identified and enforcement action taken: TMDL not required) or Category 5 (no responsible party identified; enforcement action not taken: a pollutant problem may remain and a TMDL is potentially needed). The purpose of placing waters in Category 4d is to allow tracking of pollutant-caused fish kills where the cause of the kill has been addressed and to avoid placing these waters in Category 5 where development of a TMDL would have been required. If no additional kills are reported for the affected 4d waterbody over a three-year period, the waterbody will come off Category 4d and, lacking any other source of water quality information, will then be considered “not assessed” for purposes of Section 305(b) reporting and Section 303(d) listing. Once placed in Category 4d, no additional state resources are specifically devoted to this waterbody unless new water quality information suggests impairment. However, these waterbodies occasionally have follow-up biological assessments completed to determine their current condition.

**Commentor: Iowa Farm Bureau Federation**

### **Comments on Iowa’s Credible Data Law**

7. **Comment: Iowa’s credible data law:** The commentor continues to support IDNR’s application of the credible data law and notes that the department follows the intent of the law when evaluating most data. The commentor further feels that federal law does not prohibit the application of this law to the state of Iowa and that placement of a water on the impaired waters list without use of credible data would likely be subject to legal challenge.

**Response:** IDNR has made every effort to implement and adhere to Iowa's credible data law when developing the Iowa list of impaired waters as required by Section 303(d) of the Clean Water Act.

**Commentor: Iowa Farm Bureau Federation**

**8. Comment: Iowa DNR's reliance on Iowa's credible data law is "wrong because the law is illegal and violates federal law in several respects":**

(There are several related comments from the same commentor that will be addressed here.)

- a) *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 a purely arbitrary requirement.*

**Response:** The specification of a five-year period to consider data "credible" for purposes of Section 303(d) listing was based on U.S. EPA guidance for Section 305(b) water quality assessments (e.g., U.S. EPA 1997). Also, data more than five years old are simply felt to be less representative of current water quality than are more recent data. For example, IDNR feels that water quality data collected over the last two years is more representative of current water quality conditions than are data collected 7, 10, or 15 years ago. The commenter should also note that historic data (older than five years) have been used for previous Section 305(b) water quality assessments and Section 303(d) listings. Also, Iowa's credible data laws provides for use of data older than five years if IDNR "identifies compelling reasons as to why the data is credible." This provision would thus allow IDNR to use previously unused data that were older than five years for Section 303(d) listing (for example, to determine long-term trends in water quality).

- b) *Data collected by anyone other than DNR, professional designee, or qualified volunteer, is considered not credible. In fact, there is no logical or scientific justification for this requirement. Taking the sample is just a matter of dipping a bottle into the water and collecting the sample. It is the testing and analysis of the sample that requires expertise. This is again a purely arbitrary requirement.*

**Response:** IDNR feels that good, scientific reasons exist for specifying qualifications for those persons collecting samples of water to be analyzed, and these reasons are typically stated in standard operating procedures for sample collection. Following a standard operating procedure with quality assurance and quality control is especially important when considering that data results influence whether a waterbody is considered impaired and additional resources are expended. In addition, sample containers require special preparation based on the specific analysis to be performed. For more information on this topic, the commenter is referred to Mike Schueller (phone 319-335-4389) from the University of Iowa Hygienic Laboratory in Iowa City.

- c) *The law states that a water body shall not be placed on the 303(d) list if the impairment is caused solely by violations of an NPDES permit or stormwater permit. The Clean Water Act recognizes two sources of pollution, point source and non-point source pollution. The Act also requires states to adopt water quality standards for impaired waters without distinguishing between the two sources of pollution. Pronsolino v. Nastri, 291 F.3d 1123 (9<sup>th</sup> Cir. 2002). The water quality standards are the basis for a 303(d) list.*

**Response:** The provision in the credible data law that excludes waters with impairments due solely to violations of an NPDES permit simply recognizes that an existing, required pollution control program is in place to deal with the discharge-related pollution problem and that the impairment results from a failure to comply with the requirements of that (NPDES) program. In other words, the impairment is caused not by a problem with water quality standards or inadequate permit limits but is caused by a failure of a wastewater treatment facility to meet requirements of their NPDES permit. The remedy to this problem is one of enforcement; not stricter water quality standards. Iowa's water quality standards apply to Iowa's surface waters without regard to the source of pollution (point versus nonpoint). IDNR agrees that state water quality standards are the basis for a 303(d) list.

- d) *The law states that a water body shall not be placed on the 303(d) list if an impairment may be abated by existing effluent limits or other pollution control measures. This clearly violates the Clean Water Act. The Act requires that if a water is impaired it must be on the 303(d) list. Pollution control measures would be part of the implementation of a TMDL for the water body.*

**Response:** IDNR does not feel that exclusion of waters from the 303(d) list for which existing effluent limitations are adequate to achieve water quality standards is a violation of, or in conflict with, Section 303(d) of the Clean Water Act. Section 303(d)(1)(A) states the following: "each state shall identify those waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301(b)(1)(B) are not stringent enough to implement any water quality standard applicable to such waters." IDNR maintains that if existing limits or other pollution control measures are, in fact, adequate to achieve the applicable water quality standards, improvement in water quality can be gained relatively quickly from enforcement of those limits or measures.

- e) *The 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 Clean Water Act. All impaired waters that do not meet water quality standards are to be included on the 303(d) list. That same section of the [credible data] law then says that all data need not be used. The Clean Water Act requires that all existing and readily available data must be used in developing the 303(d) list.*

**Response:** U.S. EPA regulations regarding Section 303(d) of the Clean Water Act (CFR 130.7) require that states "evaluate" all existing and readily available data when developing the Section 303(d) list, but these regulations do not require that states must use all existing and readily available data for Section 303(d) listing as the commenter suggests. The state must provide documentation to the U.S. EPA

Regional Administrator to support the decision not to list a water. As stated in CFR 130.7 (b)(6)(iii), if a state decides not to use any existing and readily available data, the state must provide a rationale for any decision to not use any such data. According to CFR 130.7 (b)(5), “existing and readily available data and information” includes waters identified by the state in its most recent Section 305(b) report as “impaired”. Thus, the U.S. EPA regulations provide states a means to justify a decision not to use all existing and readily available data. IDNR considers its methodology for developing Iowa’s Section 303(d) list and the waterbody-specific assessment narratives to constitute, at least in part, this rationale. More detailed rationales are provided as requested by U.S. EPA Region 7. In a more practical sense, the issue of having a water identified as “impaired” for purposes of Section 305(b) reporting but not included on the state’s Section 303(d) list is related to the level of confidence supporting the assessment. If a sufficient amount of high quality data suggests an impairment, IDNR has a higher degree of confidence that the impairment actually exists, and the water is added to the Section 303(d) list and prioritized for development of a total maximum daily load (TMDL). If, however, either the quantity or quality of data are insufficient to accurately determine whether an impairment exists, the water is not added to the state’s Section 303(d) list but is placed on the state list of waters in need of further investigation. Waters on this list will be monitored to determine whether the impairment actually exists and whether IDNR staff need to develop a TMDL for this water. In other words, IDNR places all waters *known* to be “impaired” on the Section 303(d) list; for waters where IDNR is uncertain whether an impairment actually exists, the water is not simply ignored but is placed on a list of waters that need more monitoring to determine whether an impairment does actually exist. Iowa is but one of many states that use similar lists of potentially impaired waterbodies that require further monitoring.

- f) *The 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 Clean Water Act requires that water quality standards be based on all types and sources of pollution.*

**Response:** IDNR maintains that (1) while the credible data law states a preference for numeric standards over narrative standards, the law does not preclude use of narrative standards and (2) that substantial use of narrative standards was made in developing Iowa’s 2004 Section 303(d) list. As described in IDNR’s methodology for developing the 2004 Section 303(d) list, Iowa lakes were assessed, and placed on the draft 2004 list, based on violations of Iowa’s narrative water quality standards protecting against “aesthetically objectionable conditions” and “presence of nuisance aquatic life”. Similar use of these narrative criteria was made for Iowa’s 2002 Section 303(d) list. As stated in the IDNR methodology, narrative standards are typically used for parameters that lack numeric water quality standards.

**Commentor: Iowa Chapter Sierra Club**

### **Comments on the Methodology used to develop the Integrated Report**



9. **Comment: Use of the trophic state index:** The commentor is concerned that IDNR continues to use the trophic state index (TSI) to determine whether a lake is impaired. This concern is due to limited supporting information provided by IDNR in the past for the basis of the decision to use TSI values; the commentor contends that TSI values should not be used as a standard due to a lack of credible supporting data. TSI values are used by IDNR in those instances where “overwhelming evidence on an impairment” exists in the absence of any violation of approved numeric criteria. TSI values are being used by IDNR to justify placing waters on the Section 303(d) list (Category 5 of the Integrated Report) and appear to be used as numeric criteria when there is none. The commentor notes that Iowa’s credible data law states the following: “Numerical standards shall have a preference over narrative standards. A narrative standard shall not constitute the basis for determining an impairment unless the department identifies specific factors as to why a numeric standard is not sufficient to assure adequate water quality.” The commentor feels that IDNR’s use of TSI values does not meet this requirement.

**Response:** IDNR feels that use of the trophic state index to assess lake water quality, and to identify impairments at Iowa lakes is consistent with all requirements of Iowa’s credible data law. As stated in IDNR’s methodology for developing the 2004 list of impaired waters, IDNR uses the TSI to implement Iowa’s narrative water quality criteria (IAC 567-61.3(455B)) protecting surface waters against “aesthetically objectionable conditions”:

*Because of this direct linkage between the perceived level of water quality and turbidity, TSI values for chlorophyll-a and Secchi depth will be used as guidelines to identify Iowa lakes that do not meet Iowa’s narrative water quality standard protecting against “aesthetically objectionable conditions.” Both chlorophyll-a and Secchi depth are applicable to Iowa’s narrative water quality criterion protecting against “aesthetically objectionable conditions” in Iowa surface waters (IAC 2002, 61.3(2)). IDNR field (Fisheries Bureau) staff will be contacted to verify that the “aesthetically objectionable condition” suggested by the TSI values does, in fact, exist.*

The Iowa Water Quality Standards do not have numeric criteria that protect against turbidity related impairments in lakes, caused by either suspended algae or suspended sediment in the water column. Therefore, given the lack of numeric criteria for these parameters, the use of the TSI values to identify lakes with turbidity-related impairments does not contradict the provision in the credible data law that numeric standards shall have preference over narrative standards.

If such numeric criteria did exist for chlorophyll, suspended solids, or turbidity, IDNR would use them preferentially over TSI values and would thus remain consistent with Iowa’s credible data law to assess these types of water quality impacts at Iowa lakes. Lacking such criteria, IDNR chose to use Iowa’s narrative water quality standards and to implement these standards through the trophic state index.

The use of the trophic state index with Iowa’s narrative water quality standards allows IDNR to assess, in a systematic manner, important types of water quality impacts at Iowa lakes that, prior to 2002, were not assessed due to the lack of numeric criteria for turbidity-related parameters in the Iowa Water Quality Standards. This approach is also used by many other states, including Minnesota.

IDNR has followed the TSI water quality assessment framework used by the Minnesota Pollution Control Agency for southern Minnesota lakes to identify lakes where the water is either “too green” or “too brown” to be aesthetically acceptable and constitute violations of the narrative water quality standards.

**Commentor: Iowa Farm Bureau Federation**

- 10. Comment: Iowa’s current water quality standards are in violation of the Clean Water Act. Although the process of revising these standards is not complete, Iowa’s 2004 Section 303(d) list should be based on the correct application of the Clean Water Act.** The 2004 list relies on the Iowa water quality standards classification system that Iowa DNR now agrees is in violation of the Clean Water Act. IDNR’s current classification places waters in the “general use” classification unless specific data show that the waterbody is fishable and/or swimmable. The CWA, however, presumes that all waters are fishable and/or swimmable unless specific data demonstrate otherwise. The result of Iowa’s incorrect standards is that 83% of our water bodies are classified as “general use” and receive no protection. Even though that process is not yet complete, the 303(d) list should be based on the correct application of the Clean Water Act.

**Response:** These issues are relevant to IDNR activities associated with the development and revision of Iowa’s water quality standards. Section 305(b) reporting and Section 303(d) listings are based on current EPA-approved standards, and cannot be based on water quality standards that have not gone through the rulemaking process and have not received EPA approval. IDNR also notes that all Iowa surface waters, including “general use only” waters are protected by the state’s narrative water quality criteria.

**Commentor: Iowa Chapter Sierra Club**

- 11. Comment: IDNR is arbitrarily using “monitored” and “evaluated” assessments; such use will exclude some existing and readily available data from use.** The commentor states that IDNR’s methodology distinguishes between two types of water quality assessments: “evaluated” and “monitored.” IDNR admits that EPA guidelines do not distinguish between “evaluated” and “monitored” assessments but arbitrarily decided to use only “monitored” assessments in compiling the Section 303(d) list. This decision will exclude some existing and readily available water quality data and information that the Clean Water Act requires to be used.

**Response:** As documented in IDNR’s methodology for preparation of the 2004 Integrated Report, the concepts of “monitored” and “evaluated” as related to Section 305(b) water quality assessments were developed by U.S. EPA and have historically been included in U.S. EPA guidance to states. U.S. EPA’s guidance to states for preparing the 2004 Integrated Report omitted most of the mechanics of water quality assessments—including the use of “monitored” versus “evaluated” assessments—that were historically part of U.S. EPA’s guidance to states for Section 305(b) reporting. The most recently published guidelines that contain such information are

those for the 1998 Section 305(b) reports (U.S. EPA 1997). Based on this information, IDNR does not consider the implementation of U.S. EPA's long-established concepts of "monitored" and "evaluated" as arbitrary. IDNR continues to use the concepts of "monitored" and "evaluated" to differentiate between the confidence of water quality assessments, and continues to use only the higher confidence "monitored" assessments for Section 303(d) listing.

**Commentor: Iowa Chapter Sierra Club**

### **Waterbody Specific Comments**

Comments were received in regards to three waterbodies included in the Syngenta Atrazine Monitoring Program. These three waterbodies are Morris Lake, Lower Centerville Reservoir, and Home Pond. Commentors requested that IDNR include data from 2003 and 2004 in considering the listing of to show that the mean atrazine concentrations for these reservoirs does not exceed the MCL of 3 ppb. Commentors also stated that, for the most recent three years (2002-2004), the mean raw water atrazine levels in these reservoir did not exceed the MCL. Commentors also noted that U.S. EPA will likely raise the MCL, possibly as early as 2006, and that IDNR should at least lower the priority for TMDL development for these three waterbodies to low or medium so that the state does not waste scarce resources on watershed plans that may not be necessary. Thus, the two issues to be addressed are as follows: (1) use of data beyond IDNR's data cutoff period for purposes of assessing these lakes and (2) annual average concentrations of atrazine below the atrazine MCL.

**12. Morris Lake: Comment:** The average annual levels of atrazine at Morris Lake are less than the 3 ug/l MCL and that the Class C (drinking water) uses should be assessed as "fully supporting / threatened" (which would not result in addition of this waterbody to Iowa's 2004 Section 303(d) list).

**Response:** Although raw water annual average concentrations of atrazine did not exceed the MCL of 3 ug/l during the years 2000 through 2002, moving annual means did, in fact, exceed the MCL during this assessment period. As stated in IDNR's assessment database (ADB+), seven of the 47 moving annual averages calculated for Morris Lake for the 2000-2002 period were above the MCL of 3 ug/l (range: 1.9 to 3.7 ug/l). These elevated running annual averages resulted from high levels of atrazine that occurred from May through September of 2001; the 13 samples collected during these months contained atrazine at levels ranging from 4.4 to 12 ug/l. Based on IDNR's Section 305(b) assessment methodology, if the average contaminant level in source water is greater than the MCL, the Class C (drinking water) uses of the source water should be assessed as "not supported." Thus, Morris Lake will remain on Iowa's 2004 Section 303(d) list as having drinking water uses impaired by atrazine.

**Commentor: Syngenta Crop Protection, Inc., Iowa Farm Bureau Federation**

**13. Lower Centerville Reservoir: Comment:** The commentor maintains that, although this lake had two of five years from 2000 through 2004 with average annual levels of atrazine above the 3 ppb MCL, the five year average (2.60 ppb) is less than the MCL

and that since 2001 annual average levels of atrazine have decreased. The commentor does not specifically request this waterbody be removed from Iowa's 2004 Section 303(d) list but notes that continued monitoring as part of their atrazine monitoring program (AMP) should provide additional annual data to better assess this waterbody from the 303(d) listings in the next [2006] review cycle.

**Response:** IDNR agrees that average levels of atrazine have exceeded the MCL, and this is the basis for including this waterbody on Iowa's 2004 Section 303(d) list. As stated in IDNR's assessment database, results of Syngenta's AMP showed that the time-weighted mean levels of atrazine in samples collected from Centerville Reservoir in 2001 (4.11 ug/l) was above the MCL of 3.0 ug/l. The time-weighted mean of atrazine in 2000 (N=30) was 2.64 ug/l, in 2001 (N=31) was 4.11 ug/l, and in 2002 was 1.72 ug/l. In addition, thirty-two of the 48 moving annual averages calculated for the three-year period were above the MCL of 3 ug/l (range: 3.5 to 4.9 ug/l). Based on IDNR's Section 305(b) assessment methodology, if the average contaminant level in source water is greater than the MCL, the Class C (drinking water) uses of the source water should be assessed as "not supported." Thus, Lower Centerville Reservoir will remain on Iowa's 2004 Section 303(d) list as having drinking water uses impaired by atrazine. IDNR will incorporate data from Syngenta's AMP for 2003 and 2004 into assessment decisions for this waterbody for the 2006 Section 305(b) assessment and Section 303(d) listing cycles.

**Commentor: Syngenta Crop Protection, Inc.**

- 14. Home Pond: Comment:** The commentors state that, although this lake had one of five years from 2000 through 2004 with average annual levels of atrazine above the 3 ppb MCL, the three-year (2000-02) average (2.90 ppb) and the five year (2000-04) average (2.60 ppb) are both less than the MCL. The commentors did not specifically request that this waterbody be removed from Iowa's 2004 Section 303(d) list but notes that continued monitoring as part of their atrazine monitoring program (AMP) should provide additional annual data to better assess this waterbody from the 303(d) listings in the next [2006] review cycle.

**Response:** IDNR agrees that the Syngenta AMP monitoring showed that the time-weighted mean levels of atrazine in samples collected from Home Pond in calendar years 2000 and 2001 were below the MCL of 3 ug/l and that the time-weighted mean in one of these three years (2002) was above the MCL. As stated in IDNR's assessment database, the time-weighted mean of atrazine in 2000 (N=31) was 1.34 ug/l, in 2001 (N=29) was 2.94 ug/l. In 2002 (N=14), however, the annual average (4.4 ug/l) exceeded the MCL. In addition to an annual average that exceeds the MCL, these results suggest a steady increase in the levels of atrazine over the last three years. In addition, ten of the 46 moving annual averages calculated for the 2000-2002 period were above the MCL of 3 ug/l (range: 1.0 to 4.9 ug/l). Based on DNR's Section 305(b) assessment methodology, if the average contaminant level in source water is greater than the MCL, the Class C (drinking water) uses of the source water should be assessed as "not supported." Thus, even though more recent data may suggest a declining trend in atrazine levels in Home Pond, both annual average levels and moving annual average levels of atrazine did exceed the MCL. Thus, Home Pond will remain on Iowa's 2004 Section 303(d) list as having Class C (drinking water) uses impaired by atrazine. IDNR will incorporate data from

Syngenta's AMP for 2003 and 2004 into assessment decisions for this waterbody for the 2006 Section 305(b) assessment and Section 303(d) listing cycles.

**Commentor: Syngenta Crop Protection, Inc., Iowa Farm Bureau Federation**

- 15. Loch Ayr and Walton Reservoir listings: Comment:** Commentors noted that these two reservoirs have not been used since 2002 by the respective communities (Mt. Ayr and Fairfield) as raw water sources for drinking water. Thus, it was suggested that development of a TMDL for these waterbodies would appear to be a low priority or moot based on this change in source water.

**Response:** IDNR agrees that these changes in source water suggest a lower priority for TMDL development for these reservoirs.

**Commentor: Syngenta Crop Protection, Inc., Iowa Farm Bureau Federation**

- 16. Comment: Waterbodies that were on Iowa's 1998 list but that were removed from the 2002 list should be added back to the 2004 list.** The commentor requests that all 71 water bodies that were on Iowa's 1998 Section 303(d) list but not on Iowa's 2002 list, be added to the 2004 list.

**Response:** Iowa's 2002 Section 303(d) list was thoroughly reviewed by U.S. EPA prior to their approval of the final list. While the commentor feels that "there was no justification for removing those [71] waters from the [2002] list, U.S. EPA accepted IDNR's waterbody specific rationales and the just cause for the de-listing of these 71 waterbodies.

**Commentor: Iowa Chapter Sierra Club**

- 17. Comment: Yeader Creek should not be included on the state's list of impaired waters and IDNR should initiate actions necessary to de-list Yeader Creek.** In part, the commentor cites Iowa's credible data law (Iowa Code, 455B.195(1)(d) as the justification for de-listing Yeader Creek:

*A water of the state shall not be placed on any section 303(d) list if the data shows an impairment, but existing technology-based effluent limits or other required pollution control measures are adequate to achieve applicable water quality standards.*

The commentor feels that the impairment at Yeader Creek was due to priority organics, specifically ethylene glycol and propylene glycol. An NPDES permit for the discharge of stormwater to Yeader Creek was issued to the Des Moines International Airport and contains the same discharge limits as those in the TMDL to eliminate the stated impairment. The commentor maintains that actions required by the NPDES permit and taken by DMIA have shown that levels of ethylene glycol and propylene glycol have been below the NPDES permit and TMDL-specified limits since February 26, 2001. They further maintain that the information and data quality of their NPDES sampling meets standards of Iowa's credible data law. Thus, the data exist to

support a decision by IDNR to de-list Yeader Creek in accordance with Iowa Code Section 455B.194(1)(c). In addition, technological controls are in place to meet the discharge limits in the NPDES permit which are adequate to achieve applicable water quality standards; therefore the Iowa Code section 455B.195(1)(d) [see above] actually prohibits the IDNR from listing Yeader Creek.

The commentor also feels that results of IDNR studies of the biology of Yeader Creek show that applicable water quality standards are being met and thus this stream should not be added to Iowa's list of impaired waters. The results of the IDNR rapid biological assessment conducted on September 3, 2004, demonstrates that (1) there is aquatic life in Yeader Creek, and for some species it is abundant and (2) Yeader Creek now supports a viable aquatic community during elevated flows. The commentor interprets these conditions (presence of aquatic life and a viable aquatic community) as showing Yeader Creek now meets its applicable general use water quality standards.

**Response:** IDNR agrees that the DMIA has taken actions under the NPDES permit that have reduced levels of ethylene glycol and propylene glycol in Yeader Creek and that a comparison of results between IDNR's April 1997 and September 2004 surveys indicates that this stream supported more aquatic life in 2004 than during the previous survey. For purposes of identifying waters as "impaired" for the 2004 Section 305(b) and Section 303(d) cycles, however, IDNR does not feel that either the chemical or biological data necessarily indicate that Yeader Creek fully supports the applicable general use water quality standards. IDNR bases this position on (1) the data cut-off date for the 2004 Section 305(b) report and Section 303(d) list and (2) disagreement with DMIA regarding the aquatic life conditions that indicate full support of general uses:

1. As stated in IDNR's methodology for preparing the 2004 integrated (Section 305(b) and Section 303(d)) report, the data cutoff period for the 2004 Section 305(b)/Section 303(d) cycle was the end of calendar year 2002. Such data cutoff dates (i.e., 15 months prior to the due date for Section 305(b) reports and Section 303(d) lists) are typically used by states to allow time for data gathering, summarization, comparison to water quality criteria, and development of assessments for several hundred waterbodies (for example, over 900 waterbodies were assessed for support of beneficial uses for Iowa's 2004 Section 305(b) reporting cycle). Because levels of glycols did exceed the NPDES permit limits and TMDL limits suggested to prevent acutely toxic conditions to aquatic life in Yeader Creek during the 2000-2002 data collection period, IDNR's methodology for developing the state's Section 303(d) list would suggest that the general uses of Yeader Creek should be assessed as "impaired." And, because the data generated by DMIA as part of their monitoring activities meet requirements of Iowa's credible data law, the impairment at Yeader Creek is appropriate for addition to Iowa's Section 303(d) list of impaired waters. DMIA should note, however, that the 2006 Section 305(b) report and Section 303(d) list are in preparation, and that the data period for this new report and list will be 2002 through 2004. If monitoring data show continued compliance with requirements of the NPDES permit and TMDL for Yeader Creek, this stream would likely not be assessed as "impaired" by either ethylene glycol or propylene glycol. Likewise, IDNR's September 2004 rapid biological assessment was conducted well after IDNR's data cutoff period. These data will be

used by IDNR to develop the updated assessment for Yeader Creek as part of the 2006 Section 305(b)/Section 303(d) reporting/listing cycle.

2. IDNR does not agree, as DMIA seems to suggest, that presence of any form of aquatic life in a general use water indicates either absence of acutely toxic conditions or attainment of general use water quality standards. Even in the grossly-polluted conditions that existed in Yeader Creek during the IDNR survey in April 1997, some aquatic life (e.g., leeches and horsehair worms) were present. IDNR maintains that, indeed, determining a subjective level of aquatic life that needs to be present before a general-use only stream can be assessed as “fully supporting” is an appropriate and necessary part of the water quality assessment and impaired waters listing processes. Establishing this “subjective level” of aquatic life for streams in all use classes has been the focus of IDNR biological sampling since the mid-1990s. For the 2006 reporting/listing cycle, IDNR will compare the results of the September 2004 rapid biological assessment to Section 305(b) biological assessment procedures developed for Iowa’s general use-only streams to determine whether these uses in Yeader Creek are being attained.

Thus, because levels of glycols monitored in Yeader Creek did exceed the NPDES/TMDL limits during the 2000-2002 Section 305(b) assessment period, IDNR feels that inclusion of Yeader Creek on the 2004 Section 303(d) list is appropriate.

**Commentor: Des Moines International Airport**

**18. Comment: The draft 2004 Section 303(d) listing for Yeader Creek has “aquatic life (general use)” listed in the “designated use Impaired” column; IDNR should remove the “aquatic life” portion of the listing.** The Iowa Water Quality Standards state that general use waters will be protected from acutely toxic conditions for aquatic life during elevated flow conditions. DMIA feels that the description used by IDNR (“aquatic life (general use)”) goes above and beyond the criteria established for general use waters in the Iowa Water Quality Standards.

**Response:** IDNR is aware that Yeader Creek is only classified for “general uses” in the Iowa Water Quality standards, and IDNR in no way intended to “go above and beyond” the general use-only classification for Yeader Creek. DMIA’s comment, however, is well-taken, and IDNR will modify the description in question to read “general use” for Iowa’s final list of impaired waters.

DMIA should also be aware that the protection of general use waters against acutely toxic conditions is only one of eight applicable water quality standards for general use waters specified in Chapter 61.3(2) that are designed to protect against, for example, the following conditions: accumulation of sludge deposits; nuisance conditions, aesthetically-objectionable conditions, and nuisance aquatic life.

**Commentor: Des Moines International Airport**

**19. Comment: The segment of the Maquoketa River from Farm Creek to Plum Creek in Delaware County should be included on the 2004 303(d) list.** The commentor feels that, based on documentation and observable anecdotal

information, it is imperative that the section of the Maquoketa River from Farm Creek to Plum Creek [waterbody IA 01-MAQ-0060-2] be added to the state list of impaired waters for the following two reasons:

1. The water quality has declined precipitously in the ten years that he and his wife have lived beside the river.
2. The watersheds feeding into this section of river have been neglected by the Delaware County Natural Resources Conservation Service (NRCS) and Delaware County Soil and Water Conservation District (DCSWCD).

The commentor acknowledges that this segment of the Maquoketa River is already on Iowa's draft 2004 list of impaired waters due to results of a study by Iowa State University that showed greater than a 50% reduction in mussel species from the period 1985 to 1998. The commentor further acknowledges that the decline in mussel species is a symptom of the problems of high silt loads, high nutrient loads, habitat modification, and high volumes of runoff. He attributes all of these problems, however, to improper farming and grazing practices on highly erodible land (HEL) for which the NRCS and DCSWCD are ultimately responsible.

**Response:** IDNR feels that, in the context of Section 303(d) listing, these concerns have been addressed because (1) the segment of the Maquoketa River in question is already on Iowa's draft 2004 list of impaired waters, and (2) the specific impairment (decline in species of freshwater mussels) is believed caused by the types of non-point source pollution identified by the commentor as problems. Any erosion controls needed to improve water quality conditions in this segment of the Maquoketa River will be identified in the total maximum daily load (TMDL) developed for this impairment.

**Commentor: John Stone, Hopkinton, Iowa**

- 22. Comment: De-listing of waters included on the 2002 list.** The commentor is concerned that several waters listed in 2002 were removed from the 2004 list. The commentor believes that where the assessment information indicates a lack of data to determine the current status of the water, the water should remain on the 2004 list. These waters are addressed individually below.

Waters classified under part 2a of the Integrated Report

The following waters were included on Iowa's Final 2002 303(d) list, but were not included on the 2004 303(d) list (category 5), rather, they were included in category 2a.

1. Central Park Lake (IA 01-MAQ-01580-L) listed in 2002 as impaired by noxious plants, nutrients and siltation.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (58) and Secchi depth (65) did not exceed IDNR's TSI impairment threshold of 65. Although the TSI for Secchi depth did equal the impairment threshold, the IDNR Fisheries Biologist that manages the fishery at Central Park Lake states



that water quality has improved in recent years due to construction of a marsh that traps silt and nutrient once delivered to the lake. Thus, the lake was not assessed as "impaired." This lake did not show impairment for the 2002 Section 303(d) listing cycle but was added back to Iowa's 2002 list without supporting justification by U.S. EPA Region 7

2. Lake MacBride (IA 02-IOW-00390-L) listed in 2002 as impaired by exotic species, nutrients and siltation.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (55) and Secchi depth (60) did not exceed IDNR's TSI impairment threshold of 65; thus the lake was not assessed as "impaired." A TMDL for siltation and nutrients was approved by EPA in 2005. This lake did not show impairment for the 2002 Section 303(d) listing cycle but was added back to Iowa's 2002 list without supporting justification by U.S. EPA Region 7.

3. Lake Smith (IA 04-EDM-00610-L) listed in 2002 as impaired by noxious plants.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (64) and Secchi depth (65) did not exceed IDNR's TSI impairment threshold of 65; thus the lake was not assessed as "impaired." A TMDL for noxious aquatic plants was approved by EPA in 2005. This lake did not show impairment for the 2002 Section 303(d) listing cycle but was added back to Iowa's 2002 list without supporting justification by U.S. EPA Region 7.

4. Lacey Keosauqua Lake (IA 04-LDM-00160-L) listed in 2002 as impaired by turbidity.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (43) and Secchi depth (50) did not exceed--and are well below--IDNR's TSI impairment threshold of 65; thus the lake was not assessed as "impaired." This lake did not show impairment for the 2002 Section 303(d) listing cycle but was added back to Iowa's 2002 list without supporting justification by U.S. EPA Region 7.

5. North River (IA 04-LDM-0300\_2) listed in 2002 as impaired by habitat and unknown (biological).

**Response** (from IDNR 305(b) assessment database): The Class B(WW) aquatic life uses were assessed as "fully supported/threatened" based on results of biological monitoring conducted in 2002 as part of the DNR/UHL REMAP project. The 2002 Fish IBI score was 29 (fair) and the BM-IBI score was 56 (good). While results of REMAP sampling in 2002 suggest that the aquatic life uses are "fully supported/threatened," results of the IDNR/UHL biocriteria sampling in 1998 suggested only "partial support" of these uses (see assessment for the 2002 report). The 1998 Fish IBI score was 11 (poor) and the BM-IBI score was 60 (good). The current (2004) assessment is based on the improved scores that resulted from the 2002 REMAP sampling. Results of chemical monitoring in this river segment continue to show relatively good water quality. None of the 36 samples collected during the 2000-2002 assessment period at the IDNR monthly ambient station violated Class B(WW) water quality criteria for pH, dissolved

oxygen, or ammonia-nitrogen; no violations occurred in the nine samples analyzed for pesticides and other toxic organic compounds.

6. Nine Eagles Lake (IA 05-GRA-01010-L) listed in 2002 as impaired by turbidity.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (45) and Secchi depth (55) did not exceed--and are well below--IDNR's TSI impairment threshold of 65. In addition, results of IDNR/UHL beach monitoring suggest "full support" of primary contact recreation uses. Thus the lake was not assessed as "impaired." This lake was not technically on Iowa's 2002 Section 303(d) list (Parts One and Five of Iowa's 2002 multi-part list) but was on Part Three ("waterbodies with a TMDL approved or under development where water quality standards have not been attained").

7. Slip Bluff Lake (IA 05-GRA-01015-L) listed in 2002 as impaired by siltation.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (40) and Secchi depth (55) did not exceed--and are well below--IDNR's TSI impairment threshold of 65. Thus the lake was not assessed as "impaired." This lake was not technically on Iowa's 2002 Section 303(d) list (Parts One and Five of Iowa's 2002 multi-part list) but was on Part Three ("waterbodies with a TMDL approved or under development where water quality standards have not been attained").

#### Waters classified under part 2b of the Integrated Report

The following waters were included on Iowa's Final 2002 303(d) list, but were not included on the 2004 303(d) list (category 5), rather, they were included in category 2b.

1. Lake Myers (IA 01-TRK-02245-L) listed in 2002 as impaired by nutrients and siltation.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (59) and Secchi depth (63) did not exceed IDNR's TSI impairment threshold of 65; thus the lake was not assessed as "impaired." A TMDL for siltation and nutrients was approved by EPA in 2005. This lake did not show impairment for the 2002 Section 303(d) listing cycle, but was added back to Iowa's 2002 list without supporting justification by U.S. EPA Region 7.

2. Springbrook Lake (IA 04-RAC-02220-L) listed in 2002 as impaired by nutrients and siltation.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (52) and Secchi depth (53) did not exceed--and are well below--IDNR's TSI impairment threshold of 65; thus the primary contact recreation uses of this lake were not assessed as "impaired." This lake did not show impairment for the 2002 Section 303(d) listing cycle but was added back to Iowa's 2002 list without supporting justification by U.S. EPA Region 7.

3. Don Williams Lake (IA 04-UDM-01650-L) listed in 2002 as impaired by organic enrichment and siltation.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (58) and Secchi depth (60) did not exceed IDNR's TSI impairment threshold of 65; thus the primary contact recreation uses of this lake were not assessed as "impaired." A TMDL for organic enrichment and siltation was approved by EPA in 2005. This lake did not show impairment for the 2002 Section 303(d) listing cycle but was added back to Iowa's 2002 list by U.S. EPA Region 7 for which EPA applied the impairments of "organic enrichment and siltation." IDNR wants to clarify that, while this lake may have sedimentation-related problems, the "organic enrichment" impairment was developed for the 1996 reporting cycle based on best professional judgement; this assessment has not been used by IDNR since the 2000 cycle. The impairment of "organic enrichment" was applied by U.S. EPA during the development of Iowa's 1998 Section 303(d) list, and EPA has continued to apply this impairment despite more recent water quality data that suggest such an impairment does not exist.

4. Badger Lake (IA 04-UDM-03395-L) listed in 2002 as impaired by organic enrichment and siltation.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (50) and Secchi depth (61) did not exceed IDNR's impairment threshold of 65; thus the primary contact recreation uses of this lake were not assessed as "impaired." This lake did not show impairment for the 2002 Section 303(d) listing cycle but was added back to Iowa's 2002 list without supporting justification by U.S. EPA Region 7.

5. Manteno Park Pond (IA 06-BOY-00263-L) listed in 2002 as impaired by nutrients and siltation.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (50) and Secchi depth (52) did not exceed--and are well below--IDNR's TSI impairment threshold of 65; thus, the primary contact recreation uses of this lake were not assessed as "impaired." This lake did not show impairment for the 2002 Section 303(d) listing cycle but was added back to Iowa's 2002 list without supporting justification by U.S. EPA Region 7.

6. Upper Gar Lake (IA 06-LSR-02830-L) listed in 2002 as impaired by noxious aquatic plants.

**Response:** The median TSI values for the period 2000-2002 for chlorophyll-a (63) and Secchi depth (64) did not exceed IDNR's TSI impairment threshold of 65; thus the primary contact recreation uses of this lake were not assessed as "impaired." A TMDL for noxious aquatic plants was approved by EPA in 2005. This lake did not show impairment for the 2002 Section 303(d) listing cycle but was added back to Iowa's 2002 list without supporting justification by U.S. EPA Region 7.

#### Waters classified under part 3a of the Integrated Report

The following waters were included on Iowa's Final 2002 303(d) list, but were not included on the 2004 303(d) list (category 5), rather, they were included in category 3a.

1. Iowa River (IA 02-IOW-0070\_3) listed in 2002 as impaired by indicator bacteria.

**Response:** This segment (IA 02-IOW-0070\_3) was incorrectly added to Iowa's 2002 303(d) list; the segment that should have been added to the 2002 list (IA 02-IOW-0070\_2) is in Category 5a (=Iowa's Section 303(d) list) of Iowa's draft 2004 Integrated Report).

Waters classified under part 3b of the Integrated Report

The following waters were included on Iowa's Final 2002 303(d) list, but were not included on the 2004 303(d) list (category 5), rather, they were included in category 3b.

1. Big Marsh (IA 02-WFC-00260-L) listed in 2002 as impaired by exotic species.

**Response:** This waterbody was on Part Two of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Two waters were those assessed as impaired by non-pollutant stressors (i.e., "pollution" as defined by U.S. EPA); these waters did not require development of a TMDL. For Iowa's draft 2004 Integrated Report (IR), this waterbody was moved from the IR category of waters impaired by non-pollutant stressors / TMDL not needed (Category 4c) to a category of the IR (3b) where the impairment of this wetland will be investigated further to better determine the types of stressors impairing this wetland.

2. Buck Creek (IA 03-NSK-0042\_0) listed in 2002 as impaired by unknown (biological).

**Response:** This waterbody was on Part Five of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Five waters were those assessed as biologically-impaired with no identified cause of impairment. For the 2004 Section 305(b) assessment cycle, the general uses of this stream were assessed (evaluated) as "partially supported" based on results of IDNR/UHL biological (biocriteria) sampling in 2001. The assessment type was changed from "monitored" (higher confidence assessment) to "evaluated" (lower confidence assessment) due to a change in IDNR's assessment protocol for assessing general use-only waters. This change in methodology was made due to the high degree of uncertainty when using biological assessment methods developed for Class B(LR) and wadable Class B(WW) streams for assessing aquatic life conditions in general use-only stream segments. With the exception of the change in assessment type, this is the same assessment as that developed for the 2002 reporting cycle. This waterbody is in IR Category 3b of the draft 2004 IR (insufficient data to establish whether any uses are being met and at least one use is potentially impaired based on an evaluated assessment). Regardless of category placement, additional monitoring and investigation will be needed to determine (1) whether general uses are, or are not, being attained and (2) the actual causes of any impairments identified. Thus, given these circumstances, IR Category 3b is appropriate for this waterbody.

3. Muchakinock Creek (IA 04-LDM-0140\_2) listed in 2002 as impaired by unknown (biological) and habitat alteration.

**Response:** This waterbody was on Part Five of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Five waters were those assessed as biologically-impaired with no identified cause of impairment. For the 2004 reporting cycle, the Class B(LR) aquatic life uses were assessed (evaluated) as "partially supported" based on results of IDNR/UHL biological (biocriteria) sampling in 2000. The 2000 Fish IBI score was 5 (poor). The aquatic life use support was assessed as partially supporting (=PS), based on a comparison of the F-IBI and BM-IBI scores with biological assessment criteria established specifically for the 2002 Section 305(b) report. The assessment type was changed from "monitored" (higher confidence assessment) to "evaluated" (lower confidence assessment) due to a change in IDNR's assessment protocol for assessing Class B waters where only one of the two target biological assemblages (fish and aquatic macroinvertebrates) was sampled. This change in methodology was made due to the need for data on both biological assemblages in order to have good confidence in the resulting assessment. With the exception of the change in assessment type, this is the same assessment as that developed for the 2002 reporting cycle. Regardless of category placement, additional monitoring and investigation will be needed to determine (1) whether general uses are, or are not, being attained and (2) the actual causes of any impairments identified. Thus, given these circumstances, IR Category 3b is appropriate for this waterbody.

4. Cedar Creek (IA 04-RAC-0160\_1) listed in 2002 as impaired by habitat alteration.

**Response:** This waterbody was on Part Two of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Two waters were those assessed as impaired by non-pollutant stressors (i.e., "pollution" as defined by U.S. EPA); these waters did not require development of a TMDL. For Iowa's draft 2004 Integrated Report (IR), this waterbody was moved from the IR category of waters impaired by non-pollutant stressors / TMDL not needed (Category 4c) to a category of the IR (3b) where the impairment of this stream segment will be investigated further better determine the types of stressors impairing this wetland. In addition, the general uses of this stream were assessed (evaluated) as "partially supported" based on results of IDNR/UHL biological (biocriteria) sampling in 2001. The assessment type was changed from "monitored" (higher confidence assessment) to "evaluated" (lower confidence assessment) due to a change in IDNR's assessment protocol for assessing general use-only waters. This change in methodology was made due to the high degree of uncertainty when using biological assessment methods developed for Class B(LR) and wadable Class B(WW) streams for assessing aquatic life conditions in general use-only stream segments. With the exception of the change in assessment type, this is the same assessment as that developed for the 2002 reporting cycle. This waterbody is in IR Category 3b of the draft 2004 IR (insufficient data to establish whether any uses are being met and at least one use is potentially impaired based on an evaluated assessment). Regardless of category placement, additional monitoring and investigation will be needed to determine (1) whether general uses are, or are not, being attained and (2) the actual causes of any impairments identified. Thus, given these circumstances, IR Category 3b is appropriate for this waterbody.

5. Sunken Grove Lake (IA 04-RAC-01610-L) listed in 2002 as impaired by exotic species.

**Response:** This waterbody was on Part Two of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Two waters were those assessed as impaired by non-pollutant stressors (i.e., "pollution" as defined by U.S. EPA); these waters did not require development of a TMDL. For Iowa's draft 2004 Integrated Report (IR), this waterbody was moved from the IR category of waters impaired by non-pollutant stressors / TMDL not needed (Category 4c) to a category of the IR (3b) where the impairment of this wetland will be investigated further better determine the types of stressors impairing this wetland.

6. Little Clear Lake (IA 04-RAC-01620-L) listed in 2002 as impaired by exotic species.

**Response:** This waterbody was on Part Two of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Two waters were those assessed as impaired by non-pollutant stressors (i.e., "pollution" as defined by U.S. EPA); these waters did not require development of a TMDL. Although originally listed in Category of Iowa's draft 2004 list, this waterbody has since been moved to IR category of waters impaired by non-pollutant stressors / TMDL not needed (Category 4c); Category 4c is analogous to Part Two of Iowa's 2002 list and does not represent a change in listing status.

7. Springbrook Creek (IA 04-RAC-02415\_0) listed in 2002 as impaired by unknown (biological).

**Response:** This waterbody was on Part Five of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Five waters were those assessed as biologically-impaired with no identified cause of impairment. For the 2004 Section 305(b) assessment cycle, the general uses of this stream were assessed (evaluated) as "partially supported" based on results of IDNR/UHL biological (biocriteria) sampling in 2001. The assessment type was changed from "monitored" (higher confidence assessment) to "evaluated" (lower confidence assessment) due to a change in IDNR's assessment protocol for assessing general use-only waters. This change in methodology was made due to the high degree of uncertainty when using biological assessment methods developed for Class B(LR) and wadable Class B(WW) streams for assessing aquatic life conditions in general use-only stream segments. With the exception of the change in assessment type, this is the same assessment as that developed for the 2002 reporting cycle. This waterbody is in IR Category 3b of the draft 2004 IR (insufficient data to establish whether any uses are being met and at least one use is potentially impaired based on an evaluated assessment). Regardless of category placement, additional monitoring and investigation will be needed to determine (1) whether general uses are, or are not, being attained and (2) the actual causes of any impairments identified. Thus, given these circumstances, IR Category 3b is appropriate for this waterbody.

8. Lizard Lake (IA 04-UDM-03110-L) listed in 2002 as impaired by exotic species.

**Response:** This waterbody was on Part Two of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Two waters were those assessed as impaired by non-pollutant stressors (i.e., "pollution" as defined by U.S. EPA); these waters did not require development of a

TMDL. For Iowa's draft 2004 Integrated Report (IR), this waterbody was moved from the IR category of waters impaired by non-pollutant stressors / TMDL not needed (Category 4c) to a category of the IR (3b) where the potential impairments of this wetland will be investigated further better determine the types of stressors impairing this wetland.

9. Milford Creek (IA 06-LSR-0305\_0) listed in 2002 as impaired by unknown (biological).

**Response:** This waterbody was on Part Five of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Five waters were those assessed as biologically-impaired with no identified cause of impairment. For the 2004 Section 305(b) assessment cycle, the general uses of this stream were assessed (evaluated) as "partially supported" based on results of IDNR/UHL biological (biocriteria) sampling in 2001. The assessment type was changed from "monitored" (higher confidence assessment) to "evaluated" (lower confidence assessment) due to a change in IDNR's assessment protocol for assessing general use-only waters. This change in methodology was made due to the high degree of uncertainty when using biological assessment methods developed for Class B(LR) and wadable Class B(WW) streams for assessing aquatic life conditions in general use-only stream segments. With the exception of the change in assessment type, this is the same assessment as that developed for the 2002 reporting cycle. This waterbody is in IR Category 3b of the draft 2004 IR (insufficient data to establish whether any uses are being met and at least one use is potentially impaired based on an evaluated assessment). Regardless of category placement, additional monitoring and investigation will be needed to determine (1) whether general uses are, or are not, being attained and (2) the actual causes of any impairments identified. Thus, given these circumstances, IR Category 3b is appropriate for this waterbody.

10. Pigeon Creek (IA 06-WED-0042\_0) listed in 2002 as impaired by unknown (biological).

**Response:** This waterbody was on Part Five of Iowa's final 2002 multi-part list. As described in IDNR's methodology for preparation of the 2002 impaired waters list, Part Five waters were those assessed as biologically-impaired with no identified cause of impairment. For the 2004 Section 305(b) assessment cycle, the general uses of this stream were assessed (evaluated) as "partially supported" based on results of IDNR/UHL biological (biocriteria) sampling in 1997 and 2002. The assessment type was changed from "monitored" (higher confidence assessment) to "evaluated" (lower confidence assessment) due to a change in IDNR's assessment protocol for assessing general use-only waters. This change in methodology was made due to the high degree of uncertainty when using biological assessment methods developed for Class B(LR) and wadable Class B(WW) streams for assessing aquatic life conditions in general use-only stream segments. With the exception of the change in assessment type, this is the same assessment as that developed for the 2002 reporting cycle. This waterbody is in IR Category 3b of the draft 2004 IR (insufficient data to establish whether any uses are being met and at least one use is potentially impaired based on an evaluated assessment). Regardless of category placement, additional monitoring and investigation will be needed to determine (1) whether general uses are, or are not, being attained and (2)

the actual causes of any impairments identified. Thus, given these circumstances, IR Category 3b is appropriate for this waterbody.

## **Other Issues**

**20. Comment: Other issues: transferability of the assessment process:** Does the DNR believe that its process for creating the integrated report is transferable to another staff member if that was to become necessary? That is, is the threshold for determining if a waterbody is threatened versus impaired, for example, independent of the experience and knowledge of a given staff member? This should be one goal of the program.

**Response:** IDNR feels that the processes of Section 305(b) assessment and Section 303(d) listing are readily transferable between staff, if necessary. Not only has IDNR has prepared a detailed methodology that describes data sources, rationales for assessment and listings, and water quality standards used in assessments and listings, but even prior to Iowa's credible data law, IDNR has increasingly moved away from "best professional judgment" as the basis for water quality assessments. Beginning with the 1994 Section 305(b) reporting cycle, the decision was made to base assessments only on site-specific water quality data. Although best professional judgment remains the basis for assessing the quality of wetlands (a non-monitored waterbody type in Iowa), the vast majority of the water quality assessments developed for Section 305(b) reporting and Section 303(d) listing are now based on water quality data from routine, ambient water quality monitoring networks such as those operated by IDNR/UHL (chemical and biological), USGS, Corps of Engineers, or Iowa State University (lake monitoring program). IDNR admits that considerable "professional judgment" was used in IDNR's transition from the traditional approach of separate Section 305(b) reports and Section 303(d) lists to U.S. EPA's new "integrated reporting" format. For example, IDNR staff created a number of subcategories to the Integrated Reporting format (which is allowed in U.S. EPA's guidance) to accommodate, for example, requirements of Iowa's credible data law (e.g., subcategories 2b and 3b were created to accommodate creation of the list of waters in need of further investigation). Such activity is to be expected any time when U.S. EPA changes their recommended reporting format.

IDNR also maintains that keeping an element of professional judgment in developing assessments and in making decisions regarding impairments is a valuable part of the reporting and listing process. While some states have moved to a purely deterministic process for 305(b)/303(d) assessment and listing (i.e., data in; assessment out), IDNR continues to develop separate assessments, including a narrative that summarizes the assessment process and that identifies the source of data, the quantity of data, and the assessment criteria used to determine impairment. This waterbody-specific approach takes considerably more time than would a purely deterministic approach, but IDNR feels that the transparency and understanding gained in the assessment process is worth the extra time required.

**Commentor: Iowa Farm Bureau Federation**



**21. EPA-OPP Interim reregistration eligibility decisions (IRED) for atrazine:**

**Comment:** The commentor suggests that an ongoing review of atrazine toxicology by U.S. EPA may eventually result in an increase in the current atrazine MCL of 3 ppb. The commentor recognizes that IDNR is obligated to use the current MCL of 3 ppb as stated in the Iowa Water Quality Standards, but suggest that the potential changes in drinking water criteria should be considered by IDNR when setting priorities for TMDL development over the current (2004) and next (2006) listing cycles. The commentor further suggests that the five waterbodies Section 303(d) listings for atrazine should be a low to medium priority for TMDL development and that data for the three community water supplies currently participating in the Atrazine Monitoring Program should help IDNR better determine whether TMDL development is justified during the next listing cycle.

**Response:** IDNR agrees that the review of atrazine toxicology may result, eventually, in an increase of the MCL for atrazine. As long as the Iowa Water Quality Standards specify a drinking water criterion of 3 ppb for atrazine, however, IDNR is obligated to set priorities for TMDL development based on that number.

**Commentor:** Syngenta Crop Protection, Inc.

## **Appendix A**

### **List of Commentors**

Robert Hagener  
Aviation Director  
Des Moines International Airport, City of Des Moines  
Des Moines, Iowa

Richard Leopold  
Executive Director  
Iowa Environmental Council  
Des Moines, Iowa

Rick Robinson  
Environmental policy Advisor  
Iowa Farm Bureau Federation  
West Des Moines, Iowa

John Stone  
Hopkinton, Iowa

Wallace L. Taylor  
Legal Chair  
Iowa Chapter Sierra Club  
Des Moines, Iowa

Dennis P. Tierney, Ph.D.  
Senior Stewardship Manager  
Syngenta Crop Protection, Inc.  
Greensboro, North Carolina