

WQS FAQs

9/19/05
Chuck Corell

1. Why are these changes necessary?

The purpose of water quality standards is to protect fish and other animals that live in the stream from pollution. Also, the standards are set in order to protect people who may play in or on the water. Many of our streams currently are not protected to the extent that they should be. In addition, some of our water quality standards have become out of date and are no longer consistent with the Clean Water Act. For example:

- ◆ The definition of general use segments allows discharges from wastewater treatment plants to be considered as general use segments. This implies general use streams can be classified solely on their origin of flow which is inconsistent with federal regulations at 40 CFR 131.10(g)(2). Put simply, the presence of flow or pools supporting a designated use must stand alone regardless of the source of that flow or pooling.
- ◆ Many perennial type streams in the State of Iowa are classified as general use. This is in contrast to the definition of general use segments that states these streams are intermittent watercourses.
- ◆ Iowa has not shown that the use of “protected flow” in calculations for discharge limits adequately protects aquatic life uses as well as EPA-accepted critical low flows.

Assuring that the uses in our streams have the appropriate level of protection is a cornerstone for improving our water quality.

2. How will these changes affect the discharge limits for wastewater treatment facilities?

When we adjust the level of protection, facilities that discharge into those streams may need to improve their treatment facility to meet more stringent limits in their discharge permit. Some facilities will have to make minor adjustments in how they operate the facility while others may have to construct or install additional treatment equipment. There will be some that may have to build a completely new wastewater treatment facility.

3. How much will this cost?

Some facilities that discharge into streams affected by this change will not have to spend any money to meet the more stringent discharge limits because their facilities already can meet those new limits. Many facilities, however, will have to upgrade their treatment facility and that can be expensive. DNR estimates that these rule changes will cost between \$790 million and \$960 million statewide. This estimate includes capital costs, interest over 20 years, and the cost of operating the upgraded facility over 20 years. The complete Fiscal Impact Statement can be found at <http://www.iowadnr.com/water/standards/rulemaking.html>

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In developing our estimates for economic impact, we made conservative assumptions about the appropriate level of protection for aquatic life uses and recreational uses in the receiving streams. These assumptions are based on projected or higher levels of protection than may be necessary to comply with the revised Water Quality Standards. A more precise estimate of the cost for a specific facility cannot be made until the new standards have been applied and the facility decides what they will do to meet the new discharge limits (see question #5).

The cost of complying with these proposed changes may be further reduced through a Use Attainable Analysis (UAA). The UAA is a document that explains what level of protection (or use) is appropriate for that stream. Although federal law does not allow the state to use cost as a criteria for setting a standard, we can consider the impact to the local economy when conducting a UAA. EPA has written guidance on preparing a UAA and on considering economic impact. However, the guidance does not specifically state how much impact to the local economy is too much. EPA will review the technical merits of every UAA and either approve or disapprove any changes in designated uses associated with the UAA findings. Because of these uncertainties, the potential cost reduction from a UAA is not included in the DNR's estimate of the cost of implementing the proposed water quality standard changes.

Some people have criticized these changes by saying the money should be spent on controlling pollution from the watershed rather than from a pipe. The argument is that the majority of water pollutants come from the watershed and not the pipe. They are correct; 80-90% of the water pollution in Iowa comes from the watershed and not a city's or industry's discharge pipe. However, before we can start addressing pollution from the watersheds, we have to set the appropriate uses and levels of protection for Iowa streams. That is what we are proposing to do. Unfortunately, this means some cities and industries will have to meet more stringent limits for their wastewater discharge.

4. What improvements will we see in the quality of the water as a result of these changes?

Locally, there could be significant improvements to the quality of the streams receiving a discharge, particularly during critical low stream flow conditions. Allowable levels of ammonia and bacteria will be reduced in most of the cases. However, 80-90% of Iowa's water pollution comes from rain washing over the land and into streams and lakes rather than from city and industrial treatment plants. Statewide, the proposed changes to water quality standards will not have a substantial impact on water quality.

5. When will the new standards take effect?

Applying the new standards will be a long process. The steps are outlined below.

- ◆ First, the proposed changes will have to be adopted into the DNR's rules according to the procedure laid out in Iowa law (see question #7).

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- ◆ The adopted state water quality standards must then be approved by EPA. The Clean Water Act requires states to adopt water quality standards and for EPA to approve them before they can be implemented.
- ◆ The DNR will collect field data for each stream that received a discharge from a wastewater treatment facility. The data will be used, following the UAA process, to determine the appropriate use(s) and level of protection for that specific stream. In many cases, we expect the appropriate level of protection to be higher (more protective) than the levels currently applied to that stream. For these streams, the stream use designation will have to be changed in order to apply the appropriate protection against water pollution.
- ◆ Stream use designations are contained in DNR rules. If the use designation needs to change based on the field data and UAA findings, the proposed change must go through the rulemaking process outlined in Iowa law. The changes must also be approved by EPA.
- ◆ The DNR will use the new stream use designation to write new limits in the facility's discharge permit. If the facility has to upgrade its treatment process to meet the new limits, the permit will include a schedule for meeting the new limits. The schedule will give the facility a reasonable amount of time to plan the upgrades, construct them, and meet the new limits. Completing the upgrades necessary for meeting new limits can often take several years.
- ◆ At the end of the schedule set in the permit, the facility will be expected to meet the more stringent limits and the new water quality standards will be fully implemented.

Facilities will have choices to make about how to meet any of the more stringent requirements that may be imposed and this could change the actual impact.

Until we can do the field work necessary to determine what levels of use and protection is appropriate, we will assume that the stream deserves the highest levels of use protection, i.e., protection for fishable and swimmable uses. This is consistent with the goals set in the Clean Water Act. The department will write permit based on the appropriate level of protection rather than the assumed level of protection.

6. We are planning upgrades to our facility now. Because the discharge limits may change with the new standards, what should we do about the planned upgrades?

We are contacting all the facilities that have construction projects that we know about. The DNR will give each of these facilities our best guess at what the discharge limits will be if the changes to the water quality standards are approved. This can only be a guess at this point because we have not assessed the stream that your facility discharges into to determine the appropriate level of protection. This will be done after the proposed changes are approved.

After receiving the information from the DNR, the facility has an important choice to make:

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- ◆ One option is to proceed with the upgrade project as currently planned. In this case, we will issue the construction permit for the project currently being planned but may not issue a NPDES permit until the proposed changes to the standards are approved. The facility will be allowed to discharge under the current permit even if it is expired. After the stream is assessed to determine the appropriate level of protection, the new NPDES permit will be issued. Please note, that for this option, the new NPDES permit MAY require additional upgrades to meet the new standards. If necessary, the new NPDES permit will contain a compliance schedule giving the facility a reasonable amount of time to complete the new upgrades and comply with the new limits.
- ◆ Another option is to wait until the proposed standards are approved and the stream is assessed to determine the appropriate level of protection. Next, the new discharge limits can be determined and then the project can proceed as is or be amended to meet the new discharge limits. If your facility is currently under an order from the DNR to upgrade in order to meet your current limits, this option may not be available to you. Check with the DNR Field Office to be sure.

7. Will I have an opportunity to tell DNR how I feel about the proposed changes?

We have worked closely with EPA, environmental groups, and discharger groups in developing these proposed rules. As part of the rulemaking process, six formal public hearings have been scheduled for October around the state. The date, time, and location of each meeting will be published with the rule and announced in local newspapers. Written and oral comments will be taken at these hearings from anyone wishing to submit comments. Also, written comments can be sent to the DNR at any time before the close of public comments (October 28, 2005).

In addition to the public hearings, DNR plans to have informal meetings with the facilities that may be impacted by this rulemaking. The purpose of these meetings is to discuss the rule changes, the details of the potential impacts, potential administrative and technical options, and to answer any questions the facilities may have.

8. Will controlled discharge lagoons (CDLs) be affected by these proposed rule changes?

CDLs will not be immediately impacted by these proposed rule changes. Currently, properly operated CDLs are expected to be in compliance with the WQS thus water quality based effluent limits have not historically applied to CDLs based on the treatment efficiency and the proper storage/drawdown operation of CDLs.

The department has formed a CDL committee to help answer the many questions surrounding the storage/drawdown operation and treatment efficiency of CDLs. The recommendations from the committee may be used to initiate possible changes in the regulation of CDLs, but this will be handled in a separate rule making effort.