TRIENNIAL REVIEW PUBLIC AND STAKEHOLDER RESPONSES - 2011

KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Class C designations	The attached list includes public water supplies (PWS) which are classified by the DNR Water Supply Engineering Section as having surface water-influenced source water. I'm requesting that the Water Quality Standards Program consider adding the surface water-influenced source water locations for these PWSs (meaning specific river segments or points) as designated Class C waters. Please contact Diane Moles, DNR Water Supply Engineering, for specific water supply information, or John Olson, DNR Watershed Monitoring and Assessment, for specific river location information.	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Class C designations	Attached is a current list of public water supplies in Iowa that treat surface water or groundwater under the direct influence of surface water for their source. The list that Steve provided earlier didn't have all of the "influenced groundwater" designated systems. Those are systems that use wells which are directly influenced by surface water (usually radial collector wells), and are required to meet all of the surface water treatment requirements including filtration and disinfection. We call them IGW for short; EPA calls them GWUDI. I knew I had this list, but needed to update it. I looked them up just now and the sources listed should all be active sources, although some might be used infrequently. Things don't remain static, so there have been some changes. Here are some that I recall: Sioux City has collector wells on the Big Sioux, but they're not using that source now since it has high iron, but the infrastructure remains. The Des Moines - Saylorville system isn't quite up and running; but will be shortly. Rathbun is building a new plant that will utilize the reservoir water instead of the river after the reservoir. Ft. Madison will probably abandon their SW plant next year, after the GW plant and associated hydraulic issues are resolved. IGW systems are denoted with an asterisk. The systems that used	NA	NA	Addendum materials.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Temperature	See Adam Schnieder's 11/23/2010 e-mail. I would be happy to nominate the temperature WQS. It needs to be re-evaluated. We do not even know the basis for the 30+ year old standard. What is it trying to protect against? The wording of the standard makes it difficult to calculate limits and determine compliance. For example, temperature change – how do we determine compliance with temperature change limits when the discharge is intermittent? Also, warm discharges can be advantageous to fish in the winter, but we are putting limits of 37-38 degrees F in permits during the winter. If the facility experiences a warm day in the winter, they would be in violation no matter what upgrades were installed (cooling ponds, cooling towers, chillers, etc.). We have also only had one historical case (that I know of) of a fish kill due to temperature. Therefore, I think we need to evaluate what it is we want to protect (i.e. rapid cessation of heat) and how best to limit it.	NA	NA	Added to list.
Arsenic	FYI, I found some really good 0.1-1 ppb (ug/l) detection limit arsenic monitoring that USGS has been completing on many of Iowa's major rivers the past 20 years. I'm still compiling it, but in a nutshell: 1) average ambient dissolved arsenic values are typically 1-2 ppb, and 2) so far, none would come even close to meeting Iowa's Class C requirements of 0.18 ug/l. Only ~10-20% of ambient surface water arsenic concentrations fall below the 1 ppb detection limit.	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Arsenic	The above graph shows ≤1ppb detection dissolved Arsenic concentrations in some of Iowa's major rivers from the USGS National Water Information System (NWIS) water quality database. The chart is in standard 'boxplot' format, showing each sample population in median, min, max and quartiles. I removed non-detection values (instead of halving them). The rivers with an asterisk (*) have had samples taken during the last decade when detection limits dropped to ~0.1 ppb. Sample periods and numbers for each of the rivers are as follows: • Mississippi River; 1974-2010; 212 samples w/38 non-detects at 1 ppb • Missouri River; 1970-2010; 191 samples w/2 non-detects at 1 ppb • Des Moines River; 2001-2010; 27 samples w/0 non-detects • Iowa River; 1977-2010; 99 samples w/3 non-detects at 1 ppb • Skunk River; 1977-2006; 55 samples w/5 non-detects at 1 ppb • Cedar River; 1987-1991; 19 samples w/0 non-detects • Nishnabotna River; 1977-2005; 56 samples w/5 non-detects at 1 ppb These are 'ambient' values, not sampled to find above normal Arsenic concentrations or because of a pollution issue. As you can see, if/when our detection limits change, most every water body that gets a class C designation will automatically be impaired for Arsenic following our current Class C WQ standard of 0.18 ppb. In the past this hasn't been an issue due to the 'high' 10 ppb	NA	NA	Added to list.
Temperature	Here is the one response I got from my APB to the NPDES section about the WQS Triennial Review. (See Wendy's 11/16/2010 comment above.) Wendy's view is commonly held by all throughout the section that deal with temperature WQS. As a result, we highly recommend that the temperature standards be reviewed and, if necessary, modified to better reflect the implementation realities facing regulated facilities in the state of Iowa. Thanks for your consideration.	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Arsenic	The attached spreadsheet (Iowa SurfaceWater arsenic.xlsx) represents all data grabbed from NWIS that relates to Iowa surface water bodies. Steve Kalkhoff from the USGS helped with the retrieval. Total (un-filtered) arsenic is included in the raw data, and has higher values than dissolved. My graph did not include it due to many low detection samples not having it (they probably have to filter sediment out to get those results). Also included is the spreadsheet from Nebraska DEQ. That data includes samples from the Army Corps of Engineers along the Missouri.	NA	NA	Addendum materials.
Arsenic	Arsenic	NA	NA	Added to list.
SSM	SSM	NA	NA	Some internal discussions already and discussions with EPA. Added to list.
Stream impairment delineations	Reclassification to more consistently align streams versus TMDLs w/watersheds, i.e., WW-2 around A2 pools.	Designated uses based on highest use rather than carving out pockets of say, A3. - Having A2 for a short distance trumped by A3.	NA	Added to list.
Nutrients standards	Are aquatic life nutrients standards being incorporated?	NA	NA	Tom Wilton, lead on the stream nutrients TAC, indicated the following during the 12/15/10 meeting: Draft criteria by Spring 2011. Don't think we'll be done with nutrients, but maybe a road map.
Flowing Water Sediment Standard	A. Bonini led. B. Drustrup and John Olson also offered comments. We don't have a flowing waters sediment standard. Questions about how to enforce. How much sediment is too much? Agricultural field erosion has dropped a lot in the last couple of decades.	NA	NA	Added to list.
Human health, MCL	Human health-based inconsistencies - Established a risk-based ignoring the MCL. Benzene is 5 ppb MCL 22 for human health in water.	NA	NA	Added to list.
Arsenic	Extremely low (method detection limit) – Arsenic in soil is naturally-occurring one-tenth percentage in a water body would equal the MCL	NA	NA	Added to list.
Total recoverable values, turbidity	Groundwater samples turbid conditions. If we don't filter… Same thing in surface water. Just defined things as "impaired".	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Mussels, mussel beds	Mussel beds disappearing. Don't find many anymore, fairly depleted. City of Clinton paused work due to finding mussel beds. A lot of mussel harvesting has occurred in the past. Remnants of that left. Mussels have a complex life cycle, with eggs, fish host, etc. Access to places from development or dams also causing concerns. Why aren't mussels there?	NAI that identifies mussel beds, Fish & Wildlife Service is looking at them. Adam Schnieders indicates there is a statewide (GAS/CHAS???) survey looking at them for interior streams. Can't have a mixing zone where mussel beds are present. Kelly Poole Sov Lands Process (?)	NA	Added to list.
Chapter 61, public reporting	Streams get reclassified and then during the rulemaking you get public comment that indicates the stream is getting used. Is there a way for people to self-report before rulemaking?	NA	NA	Added to list.
Data sharing	ISU was working on a river use survey of mainstems. Maybe there is a way to collaborate in data collection. Pretty defensible.	NA	NA	Added to list.
Cold Water	There are two types of streams, but we have only identified CW1 streams. Not the CW2 headwaters streams. Do we need to get the Cold Water Protocol approved as a rule-referenced document?	Adam Schnieders indicated that we do need to get the Cold Water Protocol approved as a rule-referenced document.	NA	Added to list.
Bacteria	NA	NA	NA	Added to list.
Flowing Water Sediment Standard	Different criteria for streams & rivers. Beach criteria not appropriate for flowing waters. Not good impairment indicator.	NA	NA	Added to list.
EPA Backing	EPA Backing	NA	NA	Added to list.
SSM, Flowing Waters Sediment Standard	Single-sample max	Flowing Waters Sediment Standard. Single sample maximum, should have to use both geomean and single sample max.	NA	Some internal discussions already and discussions with EPA. Added to list.
Metals criteria, MDLs, 304a	Metals criteria – are detection levels above? Lower MDLs, see detections. Detection levels are above criteria.	NA	NA	Added to list.
Total recoverable values, Metals criteria, 304a	Metals criteria - filtered versus unfiltered	NA	NA	Added to list.
Ambient monitoring, metals	Not doing metals in ambient monitoring anymore (expensive to do) – might be good to consider	NA	NA	Added to list.
Ambient monitoring, chronic	Chronic criteria – short-term works for WW contact but not for ambient monitoring criteria. EPA: More than chronic = acute.	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Chapter 61	Chapter 61 is a number, but how to implement. Add frequency/duration/context.	NA	NA	Added to list.
Pesticides	Pesticides: Still low aldrin/dieldrin levels, criteria super low, USGS, maybe science too good.	NA	NA	Added to list.
Aluminum, metals	Aluminum - Is it a priority pollutant? Don't think it's there. We have a standard, but other states don't. We use other states' data. Lots of violations like arsenic. It's a naturally-occurring pollutant.	NA	NA	Added to list.
Temperature	Temperature, struggling to implement. Some handled by the Basin Support Document.	NA	NA	Added to list.
Chapter 61	More understanding of what the standards are supposed to do.	NA	NA	Added to list.
SSM	Single sample max for e coli. Have allowed permits to ignore, causing EPA heartburn. Missouri doesn't have sample max.	NA	NA	Some internal discussions already and discussions with EPA. Added to list.
CDLs	CDLs will need UAAs.	NA	NA	Added to list.
Lakes rec uses	Lake A1 recreational use for lakes	NA	NA	Added to list.
Nutrients, water clarity	Water clarity – A1 nutrients on lakes versus streams	NA	NA	Added to list.
Aquatic life uses, tiered	Tier aquatic life uses, framework	NA	NA	Added to list.
DO	DO criteria – 4 or 5 ppm. Have ability to evaluate.	NA	NA	Added to list.
Fungicides	I scanned in some information about pyraclostrobin, the active ingredient in crop fungicides. There has been an explosion in aerial application of this chemical the past couple years and we have documented 4 or 5 fish kills in the state caused by this chemical. We request that consideration be given to adding this chemical to Table 1. If you need more information, let me know. Thanks	We request that consideration be given to adding this chemical to Table 1.	NA	Added to list.
Bacteria	Forwarded information about new EPA bacteria criteria slated for 2012	NA	NA	Addendum materials.

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Human health, MCL	The Human Health–F&W (HH-F&W) standards are presumably applicable at the same locations as Class C standards. Since the HH-F&W standards also include consumption of fish that bio-accumulate the contaminant, it makes sense for an HH-F&W standard to be less than a drinking-water MCL. It does not make sense is for an HH-F&W standard to ever be greater than an MCL. In my quick review of Table 1 in Chapter 61, I found 16 parameters with HH-F&W standards greater than MCLs. Fortunately, I suspect these 16 chemicals are rarely found in surface waters, much less at concentrations anywhere near MCLs. However, it would be extremely embarrassing for the department to have situation arise where a surface water used for as drinking-water source was allowed to have a contaminant concentration in excess of its MCL. Similarly there are a comparable number of HH-F&W standards significantly less than MCLs, even after accounting for fish consumption. This too does not make sense. It appears that HH-F&W standards were established using a specific risk-based calculation which does not yield results that are necessarily consistent with MCLs.	• Assuming Class C waters are always fishable, make Class C standards the same as HH-F&W standards. Don't even list HH-F&W as a separate standard. • Instead of calculating HH-F&W standards using the current methodology, use a procedure similar to what the contaminated sites program uses to establish statewide groundwater standards. This procedure is designed to be consistent with MCLs and could easily be adapted to include fish consumption. It is adopted by rule. Statewide standards are set using the following approach: 1) The MCL, if one exists; 2) If no MCL exists, the Lifetime health advisory level (HAL) prescribed by the EPA Office of Water; 3) If neither an MCL nor an HAL exists, a risk-based level using methods similar to those used to establish MCLs (a default 5 x 10-5 cancer risk is used).	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Total recoverable values	Surface water standards are "total recoverable" values. As such, suspended solids in a surface water sample get analyzed along with the dissolved constituents. This can cause a variety of problems. Most significantly, soils naturally contain inorganic chemicals for which standards exist. For example, assuming a surface water sample with 0.1% solids and the solids have naturally occurring "contaminants" found in soil at the statewide average concentrations, the resultant "contaminant" concentrations in the water sample would be: Aluminum – 54,000 µg/L Arsenic – 8 µg/L Cadmium – 1 µg/L Chromium (total = +6 & +3) – 33 µg/L Copper – 18 µg/L Lead – 21 µg/L All of the above values are greater than some current water quality standards (nearly 3 orders of magnitude greater for aluminum!). This creates a formula for a "Chicken-Little scenario" where most surface waters in the state can be labeled "impaired". Some other chemicals (e.g., pesticides and SVOCs) tend to attach to soil particles in lieu of going into solution. Water supplies using Class C surface water remove solids (and associated contaminants) from water before it is provided to customers. Therefore, human-health standards for such chemicals based on "total recoverable" analyses are more protective than MCLs.	Base water-quality standards on field-filtered samples with a specified size of filter opening. Field filtering is needed prior to any sample preservation because sample preservation will often cause metals (and other contaminants) associated with solids to go into solution. If a contaminant associated with solids is problematic for aquatic life, it may be necessary to specify a "total" analysis for that contaminant.	NA	Added to list.
Process	Water quality standards (i.e., numeric values) are established by rulemaking. Therefore, whenever a standard is modified, added, or deleted, rulemaking is necessary.	Specify in rule a process for establishing water-quality standards in lieu of a specific numeric values. This would eliminate the need for water-quality rulemaking, unless the process is modified. An easily accessible table of water-quality standards could be maintained on-line. This is exactly the approach used for statewide standards prescribed in Chapter 137, so there is a precedent.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
UST	Iowa Code 455B.186(1) states: "A pollutant whether treated or untreated shall not be discharged into any state-owned or artificial lake." This section of the code had its origins in 1966 and was last modified in 1990. It makes sense that waste discharges to a lake are not a desirable thing. It's my understanding that today this provision has been interpreted by the Underground Storage Tank (UST) program to mean that *any* detectable amount of groundwater contamination near a state-owned lake is a prohibited discharge. This interpretation has made it extremely difficult and costly for leaking USTs near state-owned lakes (e.g., marinas) to achieve regulatory closure. In the case of marinas, it causes a notable hypocrisy: incidental fuel releases from motorboats often resulting in sheens on the lake surface.	Arguably, the UST interpretation transcends the original intent of the legislation. If so, Iowa Code 455B.186(1)needs to be modified to more accurately apply to the intended situation and not unwittingly apply to other unintended situations. Alternatively, clarification could be provided by rule.	NA	Added to list.
Nonpoint source pollution	At the 12/15/10 internal water-quality standards meeting, Lori McDaniel explained how water-quality standards essentially achieve two functions: 1) provide a basis for NPDES permits, and 2) provide universal goals for water quality. Water quality standards define what is considered to be unacceptable levels of contaminants (i.e., contamination) with the ultimate goal of preventing new contamination and cleaning up existing contamination. Prevention and cleanup involve substantially different approaches. NPDES permitting (our primary regulatory tool) functions well in preventing new contamination but is almost totally ineffective in cleaning up existing contamination that is predominately of non-point origin. This results in a problem of gargantuan proportions. That is, prospective NPDES dischargers will be penalized due to the non-point background load of a contaminant they want to discharge. The establishment of universal water-quality standards, for which we lack to the tools to attain, sets the department up for failure. It also unproductively stigmatizes many water bodies, which makes it more difficult to "sell the state" to current and prospective residents and businesses.	• Don't set a water-quality standards for contaminants that are predominantly of non-point origin and we have little or no regulatory influence on. There may be situations where a point source may want to discharge a significant amount of what is predominantly a non-point contaminant. In such cases, the point-source might be allocated a discharge based on a specified de minimus amount (e.g., 1%) relative to the background load in the receiving water body. • A modification of the previous recommendation could be to establish water-quality goals for contaminants that are predominantly of non-point origin and we have little or no regulatory influence on. Similar to the above recommendation, if a contaminant is near or above its water-quality goal as a result of natural and unregulated non-point sources, allow a point-source discharge of a de minimus amount relative to the background load. Setting goals for water quality that we do not have the regulatory tools to achieve would still give us a target cleaning up existing contamination with other tools besides NPDES permits.		Added to list.
Lakes rec uses	Clean up the lakes rec uses in the SWC	NA	NA	Added to list.
SWC, database	Reorganize the SWC and create a database/GIS coverage	NA	NA	Added to list.
Temperature	Revise temperature criteria	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
SSM	Clarify the single sample maximum E. coli criterion	NA	NA	Some internal discussions already and discussions with EPA. Added to list.
Cyanobacteria	I think that there should be an assessment of mammal populations around lakes to gauge the effects of the toxicity of the water when cyanobacteria deteriorate and release their toxins in the fall. A dog will die within 15 minute of ingesting the neurotoxins, and within hours of ingesting the hepatoxins, if the concentrations are high enough. If there is data available the study should not only include population increase and decline through the year, but include historical data both of mammal populations and cyanobacteria concentrations. Phosphorous ls the limiting factor for cyanobacteria, but it is difficult to gauge in lakes because the cyanobacteria scarf it up pretty quickly.	NA	NA	Added to list.
Copper, BLM	Use of the Biotic Ligand Model	NA	NA	Added to list.
Copper, BLM	Proposal to Support the Use of the Biotic Ligand Model for Copper Aquatic Life Criteria in Iowa	NA	NA	Addendum materials. Added to list.
SSM	Modify the E. coli criteria to clearly state that the single sample maximum applies only to beaches.	NA	NA	Some internal discussions already and discussions with EPA. Added to list.
Turbidity	Oregon's water quality standard for turbidity	Informational	NA	Informational.
IBI/TALU	Adopt Tom Wilton's IBI research into TALU for wadeable streams	NA	NA	Added to list.
Stream segmentation	Longer (whole stream) segmentation for designated uses	NA	NA	Added to list.
Copper, BLM	Copper Criteria – BLM model is more accurate	NA	NA	Added to list.
Temperature	Temperature Criteria	NA	NA	Added to list.
Iron	Iron Standard	NA	NA	Added to list.
Aquatic life uses	Aquatic Life Use Criteria – disagree with 2007 decision to accept EPA 304a criteria; different levels of protection are needed for B(WW -1,2 and 3)	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Wet weather program, CSOs	Wet Weather Program, CSOs and Blending	NA	NA	Added to list.
TDS	Resolve TDS approval issue with EPA and US Fish and Wildlife	NA	NA	Added to list.
Nutrients	Nutrients – move toward technology based limits	NA	NA	Added to list.
Antidegradation	Antideg	NA	NA	Added to list.
Temperature	Temperature Criteria and Implementation – dry creek bed concern	NA	NA	Added to list.
Rebuttable Presumption, UAA	Rebuttable Presumption – do we need to have this after all the UAAs	NA	NA	Added to list.
POC Definition, Antidegradation	Antideg: POC definition	NA	NA	Added to list.
de minimus , Antidegradation	Antideg: *de minimus*	NA	NA	Added to list.
Tier 2.5, Antidegradation	Antideg: Tier 2.5	NA	NA	Added to list.
Alternatives Analysis, SEI, Antidegradation	Unknowns regarding Alternatives Analysis, SEI - Outcomes, process changes, swapping chemicals – less toxic, less degrading chemical treatment	NA	NA	Added to list.
AFOs, Antidegradation	CAFOs not increase a discharge	NA	NA	Added to list.
TMDL, DO	TMDL – DO – Mississippi River – prepare for what's coming from Tetra Tech	Adaptive Management Approach by watershed and experimentation – make progress rather than use of numeric criteria	NA	Added to list.
Nutrients	Policy decision regarding having numeric nutrient standards for lakes and streams	criteria needs to be attainable	NA	Added to list.
304a	2007 304a criteria decision to accept	NA	NA	Added to list.
Temperature	Temperature	limits only apply during discharge, not prohibitive of shutting off flow	NA	Added to list.
General Use, UAA	General Use – recalculate criteria – resident species vs representative species	NA	NA	Added to list.
Nutrients, lakes	Nutrient Criteria for Lakes	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Nutrients, streams	Numeric nutrient criteria for streams	NA	NA	Added to list.
Nutrients, lakes, wetlands	Nutrients: Look at all lakes and wetlands	NA	NA	Added to list.
Cyanobacteria	Cyanobacteria: ingesting can be dangerous to dogs and other animals	Integrate mammals into a study	NA	Added to list.
Cold Water	Cold Water: Protocol – monitoring of temperature or use best professional judgment	NA	NA	Added to list.
Cold Water	Cold Water: Look for loopholes in assessment protocols	NA	NA	Added to list.
Cold Water	Cold Water: Need to add criteria	NA	NA	Added to list.
Cold Water	Cold Water: Need to populate the designated use	NA	NA	Added to list.
Human health	Human health designations.	NA	NA	Added to list.
Tier 3, Antidegradation	Nominate streams for Tier 3	Need a nomination pull out section on the web	NA	Added to list.
Aquatic life uses	Biological criteria for wetlands	NA	NA	Added to list.
Lakes rec uses	Subdivide lakes into appropriate designated uses and set appropriate criteria	NA	NA	Added to list.
Chapter 61, protocols	All Protocols – look at and update, Warm Water and Human Health	NA	NA	Added to list.
Sediment	Sediment criteria	NA	NA	Added to list.
Ammonia	Ammonia Criteria – where is EPA at with this issue; be ready if EPA finalizes their guidance	NA	NA	Added to list.
Erosion/sediment runoff	Erosion and sediment runoff.	All streams whether seasonable or continous shall have a grass buffer or woody buffer strip. The width of the buffer shall have a minimum standard set in place. The more highly erodable the land the wider the strip needs to be for compliance. This is a big problem when I walk around. Fields planted right to the waters edge. No riparian buffer.		

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Erosion/sediment runoff	Erosion and sediment runoff.	All farming will be on the contour when working on highly erodable lands. Failure to comply would indicate non-compliance and non-eligibility for any and all government programs including payment for acres rented.		
Erosion/sediment runoff	Erosion and sediment runoff.	End the end row. The amount of erosion I find is very minimal when crop residue is left on the field, planted on the contour and a buffer strip is present. But the end row is always a problem. Eliminate the row cropped end row and you will improve water quality.		
SSM	Clarification (change) of the Iowa WQS is needed before the geometric mean can be used instead of the single-sample maximum for impairment decisions.	NA	NA	See Chuck Corell's note of this date and time. Some internal discussions already and discussions with EPA. Added to list.
Junkyard	I am writing about the ad that was in the paper about our waterways, etc. The ad stated they would like in-put on things we could do to clean up our waterways. Approximately 20 years ago, I lived just west of Dumont, Iowa on Highway 3, and a salvage yard was started right next door to me. The hill is all lime rock. This lime rock hill as I called it slopes right down to the South Fork River. There is a lot of run off to that creek. If you would take a look at this situation I am sure you would agree with me on this matter. He is now putting junked cars right up to within yards of the creek bank. This floods every year. I have contacted Senator Grassley's office and the DNR about this serious matter. Senator Grassley informed me that it was a State matter and that I should contact the DNR in our State. He appreciated my concern. I did not hear from the DNR because I wanted to remain anonymous, but I have decided to speak out again about this. This needs to be checked out ASAP as spring flooding will be just around the corner. I hope you find this worthy of investigation and if nothing gets done then no one gives a ____ and you are wasting your time by putting ads like this in the paper.	NA	South Fork River	1) Forwarded info to FO2 on 2/3/2011. 2) Response from FO2: Staff believe that he is referring to Dumont Auto Salvage. This facility has a strormwater permit but my not have yet prepared a pollution prevention plan. We also have been there on another complaint. We will follow-up and inform Mr. Uhlenhopp of the results of our investigation. Thanks. 3) Received letter from Mr. Uhlenhopp. Indicated Field Office said he wasn't able to remain anonymous and he has been getting harrassing phone calls from the wife of the property owner. 4) Received 2nd letter from Mr. Uhlenhopp complaining about the DNR giving out his name.
Arsenic	One item I did not see on this list was Arsenic. Could we include that in the triennial review? I know that Iowa's standards are much lower than other states and lower than what is naturally occurring in ground water.	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Aluminum, metals, total recoverable, ambient monitoring	Aluminum: As one of the most abundant elements in the earth's crust, finding aluminum in water samples is not very surprising, especially when the sample is unfiltered and analyzed for "total aluminum." In 2007, Iowa's chronic/acute aquatic life criteria for aluminum were lowered from 388 & 4,359 ug/l to 87 & 750 ug/l. Even before the criteria were lowered, levels of total aluminum in unfiltered samples easily exceeded the chronic criterion of 388 ug/l. With the lowering to 87 ug/l in 2007, now most samples analyzed as unfiltered/total far exceed the chronic criterion with a few even exceeding the acute criterion of 750 ug/l as well. All of the aluminum impairments identified for Iowa waters thus far have been based on data from other agencies, primarily USGS and the Illinois EPA (Note: the Illinois WQ Standards does not contain criteria for aluminum). Iowa DNR seems to have dropped aluminum analysis altogether in its ambient stream/river monitoring network.	If, however, IDNR were to again monitor aluminum as "total aluminum" based on analysis of unfiltered samples, I am confident that there would be a high percentage of the monitored river segments showing aluminum impairment for aquatic life uses. I have noticed that for agencies that report both total and dissolved aluminum the dissolved concentrations seldom exceed Iowa's chronic criterion. For example, of 60 samples collected from the Mississippi River by Illinois EPA from 2006-08 and analyzed for dissolved aluminum, 5 samples (~8%) exceeded Iowa's chronic criterion of 87 ug/l. Of the 61 samples analyzed for total aluminum, 53 samples (~87%) exceeded the chronic criterion. It is the violation of our chronic criterion by the Illinois data for total aluminum that has led to the aluminum impairments identified for the Iowa portion of the Mississippi River). A central issue here is the identification of Iowa's WQ criteria for aluminum as "total." Changing the criterion to "dissolved aluminum" based on filtered samples would go a long way in addressing the potentially meaningless impairments (at least in terms of impacts to aquatic life) based on total aluminum analyses.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Arsenic, MDLs	Arsenic: The primary issue here is the arsenic human health criterion of 0.18 ug/l. This issue has been discussed several times over the last few years with the most detailed discussion prepared for EPA's eternally draft arsenic TMDL for the Upper Mississippi River (see http://www.epa.gov/Region7/water/pdf/mississippi_river_ia_draft_tmdl.pdf). As I recall, the gist of the discussion is that the naturally occurring background level of arsenic in groundwater (and surface water?) is from 1 to 2 ug/l. Thus, there is no practical way to meet Iowa's human health/fish-water arsenic criterion of 0.18 ug/l (although, according to the draft TMDL, the wasteload allocation for wastewater treatment plants in the Upper Mississippi basin would be zero arsenic). Regardless of the scientific issues involved (and there are several; e.g., bioconcentration factor for arsenic; species of arsenic involved), establishing a criterion from five to ten times below background makes little sense, especially when this toxic is naturally occurring. At least in the upper Midwest, Iowa is the only state that seems to have this criterion.	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Bacteria, beach criteria, Flowing Waters Standard, e. coli, SSM	Bacteria: My concerns here involve (1) use of a beach criterion to assess support of uses in rivers and streams, (2) the use of an indicator bacterium (E. coli) that an increasing amount of research suggests can survive and possibly replicate in sediment (thus interfering with the presumption that levels of E. coli indicate the degree of fecal contamination), and (3) the perception that the single-sample maximum criterion is equivalent to the geometric mean as a statistic to be used in identifying impairments. There are also questions regarding the derivation of criteria for bacteria, especially the derivation or our single-sample maximum criterion. My experience with years of summarizing bacteria data for purposes of identifying Section 303(d) impairments suggest that meeting the current Class A1 criterion in small and medium-sized streams is not possible and that levels under about 500 orgs/100 ml in these small/medium-sized streams probably don't significantly deviate from naturally occurring levels as influenced by contributions from wildlife and resuspension of bed sediments. Bacteria impairment is by far the most commonly identified impairment in Iowa streams and rivers. Identifying a bacteria impairment in a small stream is as simple as taking 10 samples during the summer months.	NA	NA	Added to list.
Runoff	NA	I would suggest to improve the drainage system somehow. There needs to be a filter before the water runs into the storm drainage. Can't we replace 10 ft. or more of the non-permeable asphalt or concrete that surrounds the drains in the parking lots with soil and gravel on top (or other filtering methods). This would help catch a lot of the oil, and may slightly slow runoff. The vehicle traffic could still drive over the gravel, which would not reduce parking lot capacity.	NA	Added to list.
Runoff	If I am in a parking lot during snow melt or after a rain, there is always a sheen from oil and other contaminants in the parking lot runoff.	Also, maybe interview the businesses with large parking lots and see if they think they are overbuilt, and work with them to build green areas and plant some trees and take in some of the runoff.	NA	Added to list.

TRIENNIAL REVIEW PUBLIC AND STAKEHOLDER RESPONSES - 2011

KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Erosion/sediment runoff, tiling	My question is how does all of the tiling that is going on affect water quality? I think that tiling is a major player in all of our recent flooding, more ground is being tiled and water is being pushed out of the state. Because of tiling, farmers are able to farm more ground such as moist soil areas and wetlands that I believe act as natural water buffers and filters for water. Also, I have been wondering how chemicals that are being put on fields for farming practices are affecting our water quality? I know that the state is trying to tighten up our septic practices, which I think is good, but It seems to me that farm chemicals are not as closely watched? I don't know much about this and I could be wrong but would like some insight if I am.	NA	NA	E-mail response from R. Cardinale dated 2/23 - Thank you for your note. Let me try to answer your questions. How does all of the tiling that is going on affect water quality? Drain tiles are a part of the dynamic that can potentially affect water quality. They can drain croplands and the chemicals used on those lands can have a preferential pathway to the surface water. This effect can also happen with drainage wells to the groundwater. It sounds as if you already have a good understanding of this mechanism. I know there are efforts being done to try and mitigate the impacts of drain tiles, but I am unfortunately not directly involved with them to be able to explain them thoroughly. The ISU Agriculture Service and NRCS can provide additional information. Also, a great resource to you is your DNR Mason City field office at 641-424-4073. They work with most of the program areas and have a good understanding of the impacts of CAFOs and farming as a result of investigations and inspections. I think that tiling is a major player in all of our recent flooding, more ground is being tiled and water is being pushed out of the state. Because of the tiling, farmers are able to farm more ground such as moist soil areas and wetlands that I believe act as natural water buffers and filters for water. You have a thorough understanding of the impacts of tiling and farming. The more undeveloped land that is put into production,
AFOs, runoff	Concerns about runoff from animal feeding operations	NA	NA	Added to list.
Fertilizers	Concerns about the impact of fertilizer application on water quality	NA	NA	Added to list.
Fertilizers, pre-construction testing	NA	Suggests testing water quality before and after construction of a facility as well as before and after fertilizer application to	NA	Added to list.
Cap-n-trade	Do not like cap-n-trade policies	NA	NA	Added to list.
Enforcement	NA	Suggests better enforcement of current standards	NA	Added to list.
Master Matrix	NA	Suggests using the master matrix as a uniform standard	NA	Added to list.
Staff levels	Add additional DNR staff	NA	NA	Added to list.
Chapter 61	Tighten water quality standards	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Public participation	Increased opportunities for public participation in water quality monitoring	NA	NA	Added to list.
PPCPs, resistant bacteria	Concerns about ambient concentrations of pharmaceuticals in surface water and possibly creating resistant bacteria	NA	NA	Added to list.
Flooding	Concerns about additional pollution that is added to surface waters during flood events	NA	NA	Added to list.
Erosion/sediment runoff	NA	Suggests better control of inputs into surface waters (i.e. buffer strips)	NA	Added to list.
Erosion/sediment runoff	NA	Suggests better erosion control on stream banks	NA	Added to list.
Erosion/sediment runoff	NA	Suggests limiting the proximity of row crops to stream banks	NA	Added to list.
AFOs	Suggests better treatment of animal waste from AFO	NA	NA	Added to list.
Contamination	Concerns about the Schildeburg (sp?) reservoir contaminating the Atlantic municipal wells	NA	NA	3/24/11: Sent e-mail to Matt Culp, Contaminated Sites, to see if he knew of any contaminates sites in this area. 3/25/11: e-mail 1 from Matt Culp - Not one I know or have heard about but can check our data base and records to see. 3/25/11: e-mail 2 - Found nothing. Recommended checking with field office. 3/25/11: Sent e-mail to Dan Stipe, Field Office 4 Supervisor, inquiring what he knew about this site. Awaiting on response. 3/28/11 - e-mails from Dan Stipe, Keith Wilken, Jon Martens, Mike Gannon. Site is not believed to be a risk to the city's wells based on present information. Water quality is likely better than the surface water quality. The city's concerns were that if the quarry extended any closer, it might aid in dewatering their wells, not related to much to contaminants. Based on the discussion, no risk is viewed at this time. Keith Wilken, FO4, will be sending a letter.
Beaches	Comment that if our beaches are not safe for swimming at certain times of the year, we are not doing enough to improve water quality	NA	NA	Added to list.
Fertilizers	NA	Suggests requiring a license to apply fertilizers and control the amounts of fertilizers that are sold	NA	Added to list.

TRIENNIAL REVIEW PUBLIC AND STAKEHOLDER RESPONSES - 2011

KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Fertilizers	NA	Suggests controlling the application of fertilizers and ensure proper timing of applications	NA	Added to list.
LNG pipeline	Wondering if the state of Iowa has any position on the new Nebraska LNG pipeline	NA	NA	Added to list.
Fungicides, aerial application	Concerns about the application of agricultural chemicals by plane and its impact on environmental quality	NA	NA	Added to list.
Sewage	We live in Forest City, Iowa, and have had an issue for eight years, and I'm sure years before that. We bought approximately ten acres on the back nine of Forest Cities "Bear Creek " Golf Course. We developed the area for Twin Homes, and at the present time have eight units with sewer and water. Part of the property is in the flood plain and no building is permitted. In this area. In that area, we have raw sewage surfacing all year long. It then drains into Bear Creek, then into the Winnebago river. This problem was addressed on August 15th 2005 in a letter to then DNR Representative Mr. Bradley. He was kind enough to visit the area, after which a letter was sent to the Forest City Council. We were given the impression that only local government could solve this problem. Well nothing ever happened. It smells so bad, that the area is unusable. It was intended to be an area for walking and fishing. This is a very serious problem, and needs to be addressed. We have letters documenting the visit by Mr. Bradley and to the Forest City Council. In other areas around the golf course, there are several households that drain directly into the Winnebago River through drainage pipes. One other area also has surface water that everyone gets to drive by while golfing. This is on ongoing and very serious problem that	NA	Bear Creek, Winnebago River	1) Forwarded info to FO2 on 2/16/2011. 2) Response from FO2 on 2/17/2011: The Mr. Bradley referred to in the e-mail was the county sanitarian. He is no longer associated with Winnebago County. We will follow-up and do what we can. 3) 3/8/2011 E-mail from Mike Anderson: I want to thank you for the quick response with our sewer problems. We really appreciate the fact that you passed this on to the proper department. You must swing a lot of weight down there. It's so pleasing to be able to get something done. Many thanks, and keep up the good work. If I could pass this on to your boss, believe me I would. Please pass this on.
Watershed restoration	Concerns that public comments were not considered for the Dan Green Slough restoration project	NA	NA	Added to list.
Funding	NA	Get more funding for improving water quality	NA	Added to list.
Impaired waters	Concerns about waters that are listed as impaired that do not actually meet their designated use	NA	NA	Added to list.
UAAs	Would like UAAs done for streams listed as impaired that do not have NPDES dischargers	NA	NA	Added to list.

TRIENNIAL REVIEW PUBLIC AND STAKEHOLDER RESPONSES - 2011

KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Funding	Would like to see a more efficient process rather additional require additional funding (rebuttal to earlier comment)	NA	NA	Added to list.
Antidegradation	Better communicate the public support of antidegradation policy to legislature	NA	NA	Added to list.
Public participation	Would like additional public meetings for people to voice their concerns	NA	NA	Added to list.
PPCPs	Concerns expressed about concentrations of pharmaceuticals in our surface waters	NA	NA	Added to list.
Urban sprawl	Concerns about the impacts of urban and residential development on surface waters.	Suggests tighter regulations at the state level.	NA	Added to list.
Tier 2.5, Antidegradation	Comment that it is important to keep the Tier 2.5 in the antidegradation policy to allow the state more flexibility in protecting its waters	NA	NA	Added to list.
Process	Expressed frustration with the state's process taking too long and not addressing environmental issues in a timely manner	NA	NA	Added to list.
Erosion/sediment runoff	Suggests better management of bank erosion and overall better watershed management to improve water quality	NA	NA	Added to list.
Air emissions, particulates, poultry facilities, AFOs	Concerns about air emissions, particulate matter in particular, from poultry facilities that eventually ends up in our surface waters	NA	NA	Added to list.
Aquatic life impairments	Commented that first hand observation indicates that water quality is getting worse and aquatic life is disappearing because of it (I.e. frogs, minnows, muskrats)	NA	NA	Added to list.
Iowa's reputation	Concerns about Iowa’s national reputation in regards to its poor water quality	NA	NA	Added to list.
AFOs, agriculture	Concerns that AFOs take advantage of being treated as an agricultural enterprise, and do not have Iowa environmental interests at heart	NA	NA	Added to list.
Agriculture	NA	Suggests additional regulation of commercial farms	NA	Added to list.
Process	Concerns that the DNR’s process is not keeping up, environment is degrading faster than the DNR is moving	NA	NA	Added to list.

TRIENNIAL REVIEW PUBLIC AND STAKEHOLDER RESPONSES - 2011

KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Erosion/sediment runoff	NA	Suggests that we expand programs encouraging construction of riparian buffers and coordinate better with the NRCS	NA	Added to list.
Erosion/sediment runoff	NA	Suggests encouraging construction of buffer strips in areas other than the riparian zones (i.e. terraces)	NA	Added to list.
CRP, erosion/sediment runoff	NA	Suggests an increase in the distance from stream banks that CRP will fund riparian buffers	NA	Added to list.
Special interest influence	Concern about the disproportionate influence money from factory farms has on lawmakers. Would like to see more weight given to public concerns	NA	NA	Added to list.
Reduced standards	Suggests standards for agricultural dischargers are too lax	NA	NA	Added to list.
Penalties	NA	Suggests stronger penalties for agricultural dischargers who violate standards. Needs to be a stronger deterrent.	NA	Added to list.
Penalties	NA	Suggests making the polluters bear the cost of environmental impact	NA	Added to list.
Agricultural chemicals	Iowa is a state that has very poor water quality and Iowa is a state that has very little land available for public use (wildlife habitat). The poor water quality can be seen by Iowa's continued listing on major polluted rivers report in the United States and by the Iowa DNR's own testing of wetlands in the State of Iowa. I believe there is a study of Iowa wetlands in Northern Iowa (done a few years back) and nearly all of the northern Iowa wetlands tested over tolerance levels for agricultural chemicals and fertilizers. The first reason our water quality is poor is the unregulated use of chemicals, fertilizers, herbicides, etc. that agricultural users spray on our farm fields. If we look at the Gulf of Mexico and see a dead zone that is created from runoff of chemicals and fertilizers from the Midwest farm fields, we know we have a significant problem.	In summary we need to start using less agricultural fertilizers and chemicals on our farm lands (or push for a design of a seed that needs very little chemical/fertilizer application)farmers to build detention ponds on their lands to stop the runnoff of water/chemicals/fertilizers, we need to build more wetlands all over the state, we need to identify places along rivers that we can allow to flood to reduce the flooding impact on towns and cities living along rivers, we need to fully fund Federal/State of Iowa environmental funding requests, we need to purchase more public land to preserve and protect our state biogem resources, we need to plant more trees to firmly establish that our woodlands will continue to survive throughout centuries to come and finally we need action.	NA	Added to list.

TRIENNIAL REVIEW PUBLIC AND STAKEHOLDER RESPONSES - 2011

KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Tiling	The second reason is that we have allowed farmers to tile virtually most farm fields. I don't have the facts on how much farm tiling has been installed on Iowa land over the last thirty years, but I do know we have gone on an unprecedented run in farm tiling over the last couple of decades. This has further reduced water quality and led to increased flooding. The reason landowners tile farm fields is to stop the water from ponding on their fields. What landowners have been legally allowed to do is send their water problem down stream for someone else to deal with. I saw first hand how farm tiling led to increased flooding in June of 2008 as my neighborhood in Mason City was the hardest hit Mason City neighborhood by flood waters. Farm tiling moves water quickly downstream, it sends more sediment from farm fields into our waterways which greatly diminishes the carrying capacity of our rivers/streams/waterways thereby turning minor flooding into major flooding and finally farm tiling pollutes our waterways rapidly by sending farm chemicals and fertilizers into our waterways quickly.	In summary we need to start using less agricultural fertilizers and chemicals on our farm lands (or push for a design of a seed that needs very little chemical/fertilizer application), we need to reduce farm tiling to stop the fast runoff of rain water or start requiring farmers to build detention ponds on their lands to stop the runnoff of water/chemicals/fertilizers, we need to build more wetlands all over the state, we need to identify places along rivers that we can allow to flood to reduce the flooding impact on towns and cities living along rivers, we need to fully fund Federal/State of Iowa environmental funding requests, we need to purchase more public land to preserve and protect our state biogem resources, we need to plant more trees to firmly establish that our woodlands will continue to survive throughout centuries to come and finally we need action.	NA	Added to list.

TRIENNIAL REVIEW PUBLIC AND STAKEHOLDER RESPONSES - 2011

KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
CRP reductions	Finally, our water quality has suffered by the increased demand of turning our rural land into agricultural production. With major Federal CRP reductions and with the increased corn demand for corn ethanol, the state of Iowa has become a fence post to fence post state of agricultural production land once again. We must reverse this process by taking more land out of production and putting it back to its original state (woodlands, prairies, and wetlands). It is frustrating to watch buffer strips, CRP land, marginal land etc. get put back into production to satisfy the corn ethanol demand. The scientific facts clearly show corn ethanol production does not help the environment but instead hurts the environment. There is no gain in gas mileage or air quality by using corn ethanol, and it takes much more energy and water to produce corn ethanol then we get from using corn ethanol. Now with more land going into production to satisfy the corn ethanol demand, our water quality will continue to suffer and get worse.	In summary we need to start using less agricultural fertilizers and chemicals on our farm lands (or push for a design of a seed that needs very little chemical/fertilizer application), we need to reduce farm tiling to stop the fast runoff of rain water or start requiring farmers to build detention ponds on their lands to stop the runnoff of water/chemicals/fertilizers, we need to build more wetlands all over the state, we need to identify places along rivers that we can allow to flood to reduce the flooding impact on towns and cities living along rivers, we need to fully fund Federal/State of Iowa environmental funding requests, we need to purchase more public land to preserve and protect our state biogem resources, we need to plant more trees to firmly establish that our woodlands will continue to survive throughout centuries to come and finally we need action.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Runoff, tiling	A majority of Iowa ground is exposed due to farming.	1) Since a majority of Iowa ground is exposed due to farming, why not fund a program (would be like CRP) where the landowner(s) of certain drainage ways revert the drainage ways back to what they used to be (instead of tiled-out grassed waterways). The idea is for the runoff from the side hills to flow into the concave areas that are now "expressways" into smaller creeks. Think of what Iowa used to be like, and what it is like now! All the drainages that have mowed, grassed waterways were saturated sloughs that were great filters. To make this work, they would have to disrupt the working tile system (or install non-perf), would have to seed down a wide enough area to do some good, build farmover berms perpendicular to the waterway to catch water (that wants to flow along the edge) and force it in to the grass, and construct some "Missouri crossings" every so often for the farmer to get crop across from the other side. If these areas grow up to invasives like reed canarygrass (obviously other wetland species would be more desired), I guess one good thing is that RCG does not allow erosion. I think this would really be a good thing, more like restoring Iowa's drainage ways to what they were before the plow and tile came along.	NA	Added to list.
Erosion/sediment runoff	Erosion and sediment runoff.	2) This idea is less about restoring and more about putting a band-aid over it. Why not increase cost-share for farmers to build ponds with certain drainage areas. Here is a catch: they need to use an engineering firm, and build with American Made equipment, pipes, etc. This could also slightly stimulate local economies. I realize ponds require maintenance, and are not fish passable, etc. so not as good an idea as 1.	NA	Added to list.
Public notice	Would like Iowa print media to provide more water quality standards information. Would appreciate it if DNR worked more with media, and perhaps paid to have information and notices put in local papers.	NA	NA	Added to list.
Public notice	Would like the DNR to send notices for public meetings to more organizations	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Flooding, Lake Delhi	Concerns expressed about contaminants that have been introduced because of the Delhi damn break	NA	NA	Added to list.
Canadian geese	Concern about increased populations of Canadian geese and how it is affecting our water quality	NA	NA	Added to list.
UAAs, highest designations	Concern about less protection for streams, thinks all streams should have the highest classification for the most protection	NA	NA	Added to list.
Erosion/sediment runoff	Would like to have water quality standards and penalties for erosion/sediment load in Iowa's streams	NA	NA	Added to list.
Nutrients, impaired waters	Suggests Total N&P standards in Ch. 61 and 303(d) impairment list	NA	NA	Added to list.
Agriculture	Concerns about what DNR is doing to regulate agriculture activities	NA	NA	Added to list.
Fertilizers	Do more to encourage more environmentally friendly application of fertilizers (require injection of fertilizers)	NA	NA	Added to list.
Nitrates	Need to do more to protect our groundwater from nitrate pollution	NA	NA	Added to list.
GW Protection Act, agriculture	Concerns about groundwater protection act exempting agricultural industries	NA	NA	Added to list.
AFOs	Concerns expressed that small CAFOs are not being regulated as strongly as large CAFOs	NA	NA	Added to list.
Enforcement	Wants to see stronger enforcement of current rules	NA	NA	Added to list.
Special interest influence	Statement that as long as we have a system dominated by special interests, nothing will change	NA	NA	Added to list.
Conservationists	Would like to see more conservationists to run for legislature	NA	NA	Added to list.
AFOs	Concerned about increased runoff from AFOs. Individual had experienced fish kill on their property from AFO spill.	NA	NA	Added to list.
AFOs, odor	Concerned about odor from AFOs. Individual had personally experienced problems with odors from farms close to their property.	NA	NA	Added to list.
AFOs, odor, Iowa's reputation	Concerned that environmental quality (in particular odor) are making Iowa an undesirable place to live	NA	NA	Added to list.
Agriculture, AFOs, regulation, enforcement	Concerned about impact on environment from factory farms and AFOs. Would like stronger regulation and better enforcement of current regulations.	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
AFOs, odor	NA	Suggests encouraging the development of food that would alleviate some of the digestion issues, and amounts of waste, from livestock.	NA	Added to list.
AFOs	Concerned about the way livestock were treated in AFOs	NA	NA	Added to list.
Health impacts, drinking water	Concerned about the overall health impacts from poor quality of drinking water	NA	NA	Added to list.
Chromium-6	Concerned about the widespread presence of Chromium-6 in our nation's waters	NA	NA	Added to list.
PPCPs	Concerned about the ambient concentrations of pharmaceuticals in our nation's waters	NA	NA	Added to list.
Legislative influence	Concerned about the legislature's impact on the recent rules regulating when and how manure could be applied (i.e. frozen ground application of manure)	NA	NA	Added to list.
Nutrients, Gulf of Mexico	Concerned about nutrient pollution from Iowa contributing to the dead zone in the Gulf of Mexico	NA	NA	Added to list.
Ethanol production	Concerned about the effects of ethanol production on water quality and quantity in Iowa	NA	NA	Added to list.
Water quantity, ethanol production	Concerned about our limited water supply in Iowa and other states as well	NA	NA	Added to list.
Lake Darling	Suggestion that we contact the friends of Lake Darling	NA	NA	Added to list.
Agriculture, ag chemicals	Concerned about how changing farm practices are affecting environmental quality. In particular, concern was expressed about the increased use of Ag chemicals.	NA	NA	Added to list.
Fungicides, aerial application	Concerned about the aerial application of agricultural chemicals	NA	NA	Added to list.
Local control, AFOs	Suggests more local control over where AFO’s are allowed to operate	NA	NA	Added to list.
Water quality	Concerned about the overall contamination of groundwater	NA	NA	Added to list.
Special interest influence	Concerned about the influence of lobbyists on our legislators	NA	NA	Added to list.
Stream impairment delineations, nitrates	I think one of the main things we would like to see considered is the way stream impairments are delineated.	For some impairments it may be appropriate to delineate by stream segment, but for impairments like nitrates it would seem more appropriate to impair the entire stream.	NA	Added to list.
Fungicides	FW: pyraclostrobin - aquatic fate and toxicology.pdf - Adobe Reader	NA	NA	Addendum materials.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Fungicides	Andy Goetz and Wendy Blair Johnson from BASF flew out to Iowa a couple of times to discuss the incident I investigated in 2008. If you need more data on pyroclostrobin, both of these folks could supply you with it.	Andrew J Goetz Phone: 1-919-547-2271 E-Mail: andrew.goetz@basf.com Postal Address: BASF Corporation 26 Davis Drive Research Triangle Pa, NC 27709 USA BASF - The Chemical Company	NA	Addendum materials.
EPA disapproval, Competine Creek	Concern expressed about the economic impact of an A1 designation for Competine Creek on the city of Knoxville. Creek was recommended A2 by Iowa, but was rejected by EPA.	NA	Competine Creek	3/9/2011: Looked at the EPA disapproval list. There are some pooled areas so it is unclear how this will be immediately resolved. There are possibilities to re-segment. We are working on our review of EPA disapprovals.
Antidegradation	Concerns about the impact antidegradation policy will have on the future growth of cities across Iowa. Increased regulation will stifle growth.	NA	NA	Added to list.
Cost, nutrients	Would like more emphasis placed on the affordability of these regulations, and the cost for communities to meet more stringent regulations (emphasis placed on the potential total N and P standards)	NA	NA	Added to list.
Point source vs. nonpoint source pollution	Concerns expressed about the disproportionate level of regulation placed on point source vs. non-point source pollution.	NA	NA	Added to list.
Antidegradation	NA	Suggestion that DNR offer more options for cities to improve water quality. Rather than forcing cities to treat point sources with expensive systems that provide little improvement to overall water quality, allow cities to spend equal amounts of money that would improve overall water quality even more (e.g. installing buffer strips).	NA	Added to list.
Nutrients	Concerns raised that if Iowa were to adopt nutrient criteria suggested by EPA and other states, Iowa's communities would have a very difficult time meeting the standards	NA	NA	Added to list.
Cost	Increased costs of regulation are making it difficult for communities to attract business	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
WEI, Cost, Antidegradation	The 2% of income rule for antidegradation is too high. Other states have lower %.	NA	NA	Added to list.
Cost	Stricter regulation is making it too costly for communities with steady or shrinking populations	NA	NA	Added to list.
Compliance schedules, flexibility	More flexibility in allowing communities more time to meet rapidly changing standards	NA	NA	Added to list.
PPCPs, cost	Concerned about the potential costs of treating for pharmaceuticals if standards are implemented	NA	NA	Added to list.
Agriculture, penalties	Concerned that agriculture is doing well financially, but is not doing its part to improve water quality in the state of Iowa	NA	NA	Added to list.
Stream impairment delineations, bacteria, nitrates	[Stakeholder] is the source of drinking water for approximately 500,000 Iowans. These citizens own the utility and entrust us with its operation and infrastructure. Source waters for [stakeholder] include an infiltration gallery (under the influence of the Raccoon River), and the Des Moines and Raccoon Rivers. The Department of Natural Resources (DNR) has declared both rivers impaired for coliform bacteria and nitrates (Total Maximum Daily Load (TMDL) – Raccoon River - 2007 and the Des Moines River - 2009). In addition both rivers appear on Iowa's 303(d) list of impaired waters. For more than 20 years the utility has treated increasing levels of nitrates in both surface and groundwater sources. In the last 4-5 years the utility has experienced high levels of ammonia in the Raccoon River, cyanobacteria blooms in the rivers, and increasing microbial counts. [Stakeholder] recommends the DNR, as part of the triennial review, consider changes to the Iowa Water Quality Standards as stated below. These changes are directed toward water bodies which maintain flow throughout the year or contain sufficient pooled areas during intermittent flow periods to maintain a viable aquatic community. Currently impaired waters are determined by site-specific	[Stakeholder] recommends the Department consider evaluating each contaminant based on its transportability and cumulative effect throughout the watershed. When a contaminant is not contained to a specific site the entire water body should be considered impaired. Site specific water quality criteria could be allowed if adequate documentation is provided to show that the proposed criteria is protective of all existing or potential uses downstream.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Stream impairment delineations	Water bodies in which recreational or other uses may result in prolonged and direct contact with the water or where there is a risk of ingesting water, the Environmental Protection Agency's standard of 235 colonies of bacteria per 100 ml should be required. Bacteria do not limit themselves to specific stream segments. Any water body consistently higher than the EPA standard should be considered impaired.	[Stakeholder] recommends the Department consider evaluating bacteria contaminants based on their transportability throughout the watershed. Site specific bacteria criteria could be allowed if adequate documentation is provided to show that the proposed limit is protective of all existing or potential uses downstream.	NA	Added to list.
Stream impairment delineations	Water bodies in which recreational or other uses may result in prolonged and direct contact with the water or where there is a risk of ingesting water, the Environmental Protection Agency's standard of 235 colonies of bacteria per 100 ml should be required. Bacteria do not limit themselves to specific stream segments. Any water body consistently higher than the EPA standard should be considered impaired.	[Stakeholder] further recommends public notice of bacteria counts be published and posted at least weekly during the recreational season, for water bodies utilized by the public on a regular basis for recreation (canoeing, swimming, fishing, etc.). The public has a right to know the quality of a water body so they can choose whether or not to expose themselves or their family to waters containing bacteria at levels above the EPA standard for safe contact when recreating in Iowa's rivers, streams and lakes.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Nonpoint source pollution, nutrients	In these comments we focus on the changes that can be made in water quality standards and related issues to better address the problem of non-point pollution. It is generally accepted that the overwhelming majority of the water pollution in Iowa is due to non-point sources. In order to effectively address non-point pollution, Iowa's water quality standards need to be designed to meet this challenge. The first section of Iowa's water quality standards, 61.2(1), states: It shall be the policy of the commission to protect and enhance the quality of all the waters of the state. In the furtherance of this policy it will attempt to prevent and abate the pollution of all waters to the fullest extent possible consistent with statutory and technological limitations. This policy shall apply to all point and nonpoint sources of pollution. This policy clearly includes non-point sources. The important task is to design the water quality standards to adequately address non-point pollution.	We encourage DNR to continue efforts to establish nutrient criteria for lakes and rivers and streams. It is clear that most of the nutrients come from non-point sources. These criteria need to be protective of water quality.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Nonpoint source pollution, Chapter 61	In these comments we focus on the changes that can be made in water quality standards and related issues to better address the problem of non-point pollution. It is generally accepted that the overwhelming majority of the water pollution in Iowa is due to non-point sources. In order to effectively address non-point pollution, Iowa's water quality standards need to be designed to meet this challenge. The first section of Iowa's water quality standards, 61.2(1), states: It shall be the policy of the commission to protect and enhance the quality of all the waters of the state. In the furtherance of this policy it will attempt to prevent and abate the pollution of all waters to the fullest extent possible consistent with statutory and technological limitations. This policy shall apply to all point and nonpoint sources of pollution. This policy clearly includes non-point sources. The important task is to design the water quality standards to adequately address non-point pollution.	We also believe that Iowa's Nonpoint Source Management Program needs to be made a part of the water quality standards, either directly or by specific reference. In this regard, the water quality standards should also include the best management practices that must be undertaken in order to comply with the water quality standards.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Nonpoint source pollution, Chapter 61	In these comments we focus on the changes that can be made in water quality standards and related issues to better address the problem of non-point pollution. It is generally accepted that the overwhelming majority of the water pollution in Iowa is due to non-point sources. In order to effectively address non-point pollution, Iowa's water quality standards need to be designed to meet this challenge. The first section of Iowa's water quality standards, 61.2(1), states: It shall be the policy of the commission to protect and enhance the quality of all the waters of the state. In the furtherance of this policy it will attempt to prevent and abate the pollution of all waters to the fullest extent possible consistent with statutory and technological limitations. This policy shall apply to all point and nonpoint sources of pollution. This policy clearly includes non-point sources. The important task is to design the water quality standards to adequately address non-point pollution.	In this regard, the water quality standards should also include the best management practices that must be undertaken in order to comply with the water quality standards.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Antidegradation, Pollutant of concern	[Stakeholder] has two specific concerns with the current Iowa Antidegradation Policy, which includes the Iowa Antidegradation Implementation Procedure dated February 17, 2010 (IAIP). Application of "Pollutant of Concern" Definition First, [stakeholder] asks DNR to determine "pollutants of concern" based on the definition of "pollutant of concern" as understood during the antidegradation rulemaking process. This request stems from a recent draft (and subsequently final) permit issued to an ethanol producer in north-central Iowa. In requesting a routine amendment to its NPDES permit to change the chemicals (such as anti-scaling agents) being used in its cooling tower and reverse osmosis system, the draft permit required the plant to conduct a Tier 2 alternatives analysis. The ethanol producer contended that based on the definition of "pollutant of concern" found in the IAIP, only "pollutants of concern" were subject to an antidegradation review. Therefore, since none of its proposed chemicals met the definition of "pollutant of concern," the ethanol producer reasoned that it should not have to undergo an alternatives analysis prior to utilizing these chemicals. The ethanol producer was ultimately unsuccessful in convincing DNR on this matter, and the final NPDES permit has been issued. IRFA, however, does not believe this was the proper outcome.	Clearly, the IAIP, as adopted, rejected that every pollutant is "by definition" a pollutant of concern. Therefore, [stakeholder] urges DNR to adhere to the antidegradation procedure as it was understood and approved during the rulemaking process. Such an implementation would: • Use a reasonable process for determining which pollutants are and are not "pollutants of concern." • In the determination of pollutants of concern, use a reasonable threshold for what constitutes an actual negative effect on the beneficial uses of the receiving water. • In the determination of effects on beneficial uses, consider it as a "fact question" and that the Department must "prove" a negative impact, not simply speculate about one. Such a process will safeguard both Iowa's water bodies and Iowa's regulated community. Conversely, if these issues are not resolved, DNR's unnecessarily expansive interpretation will not only place a tremendous burden on the regulated community, it will place an equally tremendous burden on DNR staff, who will be forced to spend considerable time, effort and resources evaluating numerous Tier 2 antidegradation reviews with no reasonable expectation that water quality will be improved.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Antidegradation, Tier 2.5	Second, [stakeholder] recommends that DNR remove the Tier 2 ½ Outstanding Iowa Water (OIW) protections from the Iowa Antidegradation Policy. While an antidegradation policy is required by the Clean Water Act, Iowa's Tier 2 ½ goes beyond what is required at the federal level and imposes stricter limitations and increased costs on Iowa business and industry. In addition, Tier 2 ½ protection will increase costs to the State of Iowa and allocate state resources even more sparsely than they are currently, all without providing clear benefits to Iowans and Iowa waters during a time of economic strife. The proposed Tier 2 ½ protection exceeds both the requirements of the federal Clean Water Act and the scope that many other states have successfully adopted.	[Stakeholder] recommends that DNR remove the Tier 2 ½ Outstanding Iowa Water (OIW) protections from the Iowa Antidegradation Policy.	NA	Added to list.
Antidegradation, Tier 2.5	In addition to the expanded scope of Iowa's proposed antidegradation policy, Tier 2 ½ also includes a feature that could be problematic to Iowa businesses in that any member of the public can nominate a body to be included as an Outstanding Iowa Water. In determining if the nominated water should be considered an Outstanding Iowa Water, the DNR is directed to consider a variety of parameters, but there are no scientific requirements for listing a stream as an Outstanding Iowa Water and listing them is solely up to the discretion of DNR staff on a stream by stream basis.	NA	NA	Added to list.
Antidegradation, Tier 2.5	Finally, since the regulatory analysis conducted for the Iowa Antidegradation Policy was unable to state with any certainty the benefits of having the additional Tier 2 ½ designation, the inclusion of this unnecessary level of protection has the potential to cause "all pain and no gain" for Iowa families and businesses.	Tier 2 ½ protection should be eliminated from the Iowa Antidegradation Policy.	NA	Added to list.
Temperature, WLAP	[Stakeholder] asks DNR to include language in the Waste Load Allocation Procedure identifying how the temperature limits found in 567 IAC 61.3(3)"b"(5) will be applied to effluent created streams, effluent dominated streams and effluent supplemented streams.	Specifically, [stakeholder] requests clarification that the "3°C rise criteria" do not apply to effluent created streams due to no upstream background flow.	NA	Added to list. Copied to Connie Dou to address WLAP sections.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Temperature, WLAP	In addition, [stakeholder] asks that the Waste Load Allocation Procedure include definitions of “effluent created stream,” “effluent dominated stream” and “effluent supplemented stream.”	NA	NA	Added to list. Copied to Connie Dou to address WLAP sections.
Temperature, WLAP	[Stakeholder] also generally supports DNR’s proposal to replace the numeric effluent limit designed to implement that part of the water quality standards for temperature that prohibits the rate of temperature change in a stream from exceeding 1°C per hour with a “narrative requirement.” Further, [stakeholder] supports DNR’s clarification that this “1°C per hour requirement” applies only from November through March each year.	However, [stakeholder] believes the best solution to this issue is to clarify that the “1°C per hour requirement” does not apply to effluent created streams for the same reasons that DNR does not apply the “3°C rise criteria” to effluent created streams. Namely, since an effluent created stream has no upstream background flow, it is impossible to cause a temperature change to a stream that does not exist prior to the discharge. For example, in the case of a receiving stream that is made up exclusively of effluent and has no mixing zone, an ethanol plant shutting down will cause (entirely legally) the receiving stream segment to dry up completely—thus eliminating the ability of fish to live in the stream—regardless of whether the discharge is shut down rapidly or gradually. Therefore, it is not reasonable to require ethanol plants that discharge into effluent created streams to meet a standard that runs counter to real world (and legal) outcomes.	NA	Added to list. Copied to Connie Dou to address WLAP sections.
UAA, Rebuttable Presumption	Finally, [stakeholder] requests that the “rebuttable presumption”—requiring the designation of all perennial rivers and streams or intermittent streams with perennial pools in Iowa as Class A1 and all of the same streams not specifically listed in the Surface Water Classification as Class B(WW-1)—be eliminated immediately.	NA	NA	Added to list.
Copper, BLM	NA	Attached is a letter from Robert Gensemer on behalf of the Copper Development Association and International Copper Association discussing an issue we would like for your unit to consider in the next Triennial Review. As you suggested in your January 27th email, this document provides background information on the copper Biotic Ligand Model.	NA	Informational.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Bacteria, beaches	Bacteria criteria for rivers and streams: The current approach of using the EPA criteria recommendation for swimming beaches appears inappropriate for assessing support of rivers and streams for support of Class A1/A3 uses. That is, bacteria levels tend to be much higher in streams and rivers with the result that monitoring of Iowa streams and rivers for bacterial indicators (E. coli) constitutes an automatic Section 303(d) impairment. Yet, despite the routinely high levels of E. coli, reports of waterborne disease do not exist. One unfortunate result of the use of an inappropriate WQ criterion is that the IDNR TMDL writers are obligated to spend time and resources preparing a TMDL for a highly questionable impairment.	NA	NA	Added to list.
Metals criteria, MDLs, 304a	Metals criteria: IDNR's adoption of 304(a) criteria for toxic metals has pushed our criteria to very low levels and levels that are likely well below what occurs naturally in the earth's crust (and thus in sediment that is collected along with water samples during WQ monitoring).	To avoid writing TMDLs for impairments based on naturally-occurring background levels of metals (i.e., absolutely meaningless TMDLs), IDNR needs to switch to analysis of dissolved metals in its WQ monitoring network. To continue to analyze unfiltered grab samples for "total metals," and to continue to compare the results of this monitoring to our WQ criteria is truly bad science that results in wasted effort and resources on the part of IDNR staff.	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
General Use, UAA	General use streams: do these exist? We still talk about "general use" streams as if we still have these in the state of Iowa. Based, however, on recommendations from former WQS staff person, I assume A1/B(WW1) uses for all Iowa streams that are not listed in the surface water classification. The rationale is that we don't know for sure whether the small stream where bacterial monitoring was conducted or where a fish kill occurred might be an A1 or A2 water; no do we (I) know whether EPA will approve the IDNR recommendation for "general use-only." So, I routinely invoke the rebuttable presumption when assessing for Clean Water Act (305(b)/303(d)) purposes. My point is that, while the general use (narrative) WQ criteria are still necessary and important, reference in Chapter 61 to "general use streams," at least in the context of "general use-only," is probably inaccurate; some refinement of this concept is likely in order.	NA	NA	Added to list.
Aquatic life uses, Chapter 61, UAA	Definition of B(WW1) waters: My opinion is that the implementation of the Class B(WW1) use designation is inconsistent with (if not contrary to) the definition of B(WW1) uses in Chapter 61. This definition refers to "waters in which temperature, flow and other habitat characteristics are suitable to maintain warm water game fish populations" and states that such waters "generally include border rivers, large interior rivers, and the lower segments of medium-sized tributary streams." The inconsistency arises in application of the B(WW1) designation to very small streams that neither support "warmwater game fish populations" nor are anywhere in the vicinity of "lower segments of medium-sized tributary streams." One might argue that the results of a UAA would show that the appropriate aquatic life use designation for the small presumptively B(WW1) stream is B(WW2). This is probably a valid argument (although the UAA process has resulted in some B(WW1) recommendations for some small streams). The problem is that the number of presumptive B(WW1) streams is orders of magnitude beyond what can be addressed via the UAA process. Relative to the total number of streams in Iowa, the effort to conduct UAAs for streams receiving	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Aquatic life uses, Chapter 61, UAA	Implementation of the B(WW3) use designation: My very quick survey suggests that this use designation has been applied for very few (handful?) of streams in Iowa. We (IDNR) might want to revisit the concept of B(WW3) and potentially revise of discard this designation.	NA	NA	Added to list.
Chapter 61	Reference to Clean Water Act: In Chapter 61, at the top of page 23 (under "Volunteer Monitoring Data Required"), there is mention of "the Act," presumably in reference to the Clean Water Act. There is, however, no previous mention of the CWA in this section.	NA	NA	Added to list.
MDLs	WQ criteria below their respective analytical levels of detection: This is a much bigger issue in my world (i.e., WQ assessment) than in WQ Standards, but there are a number of parameters in Chapter 61 for which the criteria are well below the detection levels used by the State Hygienic Lab. One might argue that this is strictly a laboratory/methods issue, and it no-doubt is, in part. But these very low criteria (e.g., for dieldrin and DDT) are little more that conversation points as they provide no real purpose in the WQS.	NA	NA	Added to list.
Chapter 61, nutrients	Narrative criteria: These criteria are useful and very necessary to a complete set of state WQ standards. But, my experience with attempting to tie Clean Water Act (305(b)/303(d)) assessment procedures back to the WQ Standards via the narrative criteria has demonstrated some narrowness in the criteria that may cause IDNR problems in the future. For example, the emphasis on "point source wastewater discharges and agricultural practices" is a bit limiting in that some of the general use-type WQ impacts that occur (e.g., aesthetically objectionable blooms of algae in a shallow lake) really cannot be connected back to either point sources or agricultural practices. Of course, IDNR's adoption of nutrient criteria (either in the form of criteria for causal variables (N & P) or for response variables (chlorophyll) would alleviate this problem.	NA	NA	Added to list.

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KEY WORD	ISSUE	RECOMMENDATION	STREAM	ACTION
Impaired waters, chronic criteria	Chronic criteria: One of the perennial points of contention between the states and EPA in terms of identifying Section 303(d) impaired waters is identifying impairments due to violations of chronic criteria in state WQ standards. That is, chronic criteria are designed to be implemented based on a 4-day average (?), but ambient WQ monitoring networks, at best, collect data monthly. In recent years, EPA Region 7 has allowed its states to identify impairments if > 10% of the samples collected over a three-year period exceeded a chronic criterion. Now, however, EPA is back to requesting (demanding?) that states identify an impairment if more than one violation of a chronic criterion occurs in a three-year period. I don't know if this issue is relevant to a triennial review, but it is a WQ Standards issue that keeps coming up.	NA	NA	Added to list.
SSM	Single-sample criteria for E. coli: It is more or less well-accepted that the scientific rationale for the SSMax criteria is bogus. I would like to be able to rely on the geometric mean criteria for identifying impairments of contact recreation uses. But, as long as the SSMax criteria are in the Standards, EPA will require that the SSMax be used to identify impairments. I would like to explore the possibility of removing the SSMax criteria from our Standards.	NA	NA	Added to list.
IBI/TALU	At the internal stakeholder meeting, I think I suggested consideration be given to Tiered Aquatic Life Uses (TALU). Our bioassessment program received an EPA-sponsored review, and as part of that, a report (see attached technical memorandum) was prepared by EPA's contractor. The report contains numerous references to and recommendations concerning TALU. I'd be happy to discuss this sometime at your inconvenience.	NA	NA	Informational.