

Water Pollution Control Advisory Council (WPCAC) Conference Call
April 29, 2004 9:30 a.m.-11:45 a.m.
Director's Conference Room 111 Metcalf Building

Attendees:

Council Members:

Terry McLaughlin, Smurfit-Stone Container Corp.
Barbara Butler, Billings Solid Waste Division
John Schwarz, Schwarz Architecture & Engineering Inc.
Scott Seilstad
Peggy Trenk, Montana Assn of Realtors
Bill Griffin
John Wilson, MT Trout Unlimited
Shannon Dunlap, Golden Sunlight Mines, Inc.

Other Attendees:

Jon Dilliard, Department of
Environmental Quality (DEQ)
Jim Madden, DEQ
Claudia Massman, DEQ
Mark Bostrom, DEQ
Ray Lazuk, DEQ
Eric Regensburger, DEQ
Don Allen, WETA
Terry Murphy
Mike Renoldy
Mike Eastwood
Mark Spratt
Emily Eaton

Call to Order

Chairman Terry McLaughlin called the Water Pollution Control Advisory Council meeting to order on April 29, 2004 at 9:30 a.m. A roll call was conducted.

Approval of [Agenda](#)

Terry McLaughlin asked if there were any items the council members would like to have added to the agenda.

Bill Griffin said he would like to hear a CAFO update if possible.

Terry McLaughlin asked if there were any objections to adding a briefing item on the CAFO lawsuit to the agenda. No objections were made. The briefing on CAFO is added to follow the 9:45 a.m. time slot.

A motion was made and seconded to approve the agenda with the CAFO briefing added. The briefing item on feedlot operations was added at approximately 9:50 to 9:55.

Approval of [Minutes for November 6, 2003](#) and [February 19, 2004](#) Council Meetings

Terry McLaughlin said he would like to take the November 6, 2003 minutes first. Is there any issues, item addition or corrections that the members would like to take issue with at this time? There were no comments received on the November 6, 2003 meeting minutes.

A motion was made and seconded to accept the November 6, 2003 minutes that were issued with the latest information packet. The November 6, 2003 minutes have been approved.

Terry McLaughlin moved to the February 19, 2004 minutes. Is there any corrections, additions or issues regarding those minutes? No comments were received on the February 19 meeting minutes.

A motion was made and seconded to accept the February 19, 2004 minutes as issued. The February 19, 2004 council minutes have been accepted.

Briefing Items

Integrated Water Quality Report Clarification

Mark Bostrom said this briefing is to clarify some points on the 303(d) listing raised at last meeting. Point 1) all listing categories are mutually exclusive; that is no water will occur in more than one category on the list. Point 2) waters removed from the 303(d) list in 2000 and have not yet been fully assessed are listed primarily in Category 3. A small subset of the waters in need of reassessment will be listed in Category 2. The entire list of waters in need of reassessment is also presented in Appendix B of the 2004 Water Quality Report.

John Wilson asked for a rough break out of 100% of the waters in Montana. How many are assessed, how many are not assessed and how many need reassessment?

Mark Bostrom said there are 297 waters that have to be reassessed for the 2006 listing cycle. About 30% of Montana waters have been assessed. The majority of the waters have unknown water quality.

Concentrated Animal Feeding Operations (CAFO) Briefing

Jim Madden updated the Council on the recent CAFO lawsuit and the consequences of the court decision on the CAFO permitting program and the Department's general permitting programs. There was a district court order last fall suspending the use of the CAFO general permit until an environmental impact statement (EIS) is prepared. New authorizations in the meantime have to be handled under DEQ's individual permitting program.

The concept of a general permit is an Environmental Protection Agency (EPA) tool for issuing a single permit that is applicable to multiple facilities. The idea is that the single permit is published as a rule pursuant to public comment. One set of terms and conditions apply to all facilities covered under the general permit. In the authorization process, individual facilities come to the Department to get coverage under general permit. In the case of CAFOs, the Department reviews each individual facility to determine if it will meet the standards of the general permit, i.e. that the facility has adequate storm water and waste water controls. Once the Department has determined the facility will meet the standards, an authorization is issued. For individual permits, each facility must apply to the Department and receive a site-specific permit with individual effluent limitations that apply to that facility. Public comment is also required for individual permits. The idea behind the general permit is to streamline regulating a class of sources that are very similar and only need one set of standard terms and conditions.

The lawsuit challenged DEQ's issuance of the CAFO general permit and DEQ's issuance of an authorization to the CDC feedlot facility in Yellowstone County. The plaintiffs were the Montana Environmental Information Center and several neighboring landowners to the CDC

facility. The outcome of the litigation was that the court prohibited DEQ from issuing new authorizations under the CAFO general permit and suspended the authorization issued to the CDC facility. The effect of the court ruling for CAFO permitting is that new CAFOs that want a water discharge permit must get an individual permit. The fees are more expensive for the individual permit, the process is a little slower, and there is a mandatory public review and comment process. The court order says the Department cannot use the general permit until the Department does an environmental impact statement (EIS). The Department is currently without funds to do an EIS but will be requesting the funding in the next legislative session.

The courts reasoning for issuing this order is that DEQ failed to do an adequate analysis under the Montana Environmental Policy Act (MEPA) for issuance of the general permit. When the Department issued the CAFO general permit, DEQ did an environmental assessment (EA) of the environmental impacts associated with the permit. Subsequently when individual facilities got an authorization, DEQ did not do additional environmental review under the Environmental Policy Act. In other words, DEQ intended to cover all the environmental analysis at the time of the issuance of the general permit unless facts at an individual CAFO were different enough to require additional review. The court did not disagree with that general approach but found that in the upfront environmental analysis, DEQ failed to take into consideration the possibility that some of the feedlot facilities may violate the permit. There could be potentially significant environmental consequences if a facility with coverage under the general permit were to ignore the permit and discharge in violation of the permit terms. DEQ believed that violation scenarios did not need to be addressed in an environmental assessment under traditional MEPA principles, but under the court order, DEQ must go back and look at those scenarios.

Other general permitting programs in the Department are not directly affected by the court ruling, but there may be MEPA based challenges to those permits also. DEQ will make sure that it documents its follow-up MEPA reviews as each authorization is issued. If there are site-specific details at a particular facility that could trigger a significant environmental impact, DEQ will analyze that at the time an individual authorization is done.

Bill Griffin said he thought it was important for the Department to pursue a way of getting back to the general permit. There is quite a bit of confusion out there just from the standpoint of compliance. The Department had been making progress under the general permit type of permitting.

Scott Seilstad asked who originally brought the complaint forward to end up in litigation?

Jim Madden said there was a group of plaintiffs: the Montana Environmental Information Center and three or four private parties who were neighbors to the CDC facility. Montana Environmental Information Center objects to the general permitting process and has concerns about the environmental impacts from CAFOs in particular. The other plaintiffs had concerns about the particular facility that was out there and whether it was going to impact their interests.

Bill Griffin asked if the funds being requested for an environmental impact statement would satisfy part of this lawsuit?

Jim Madden said yes, the intention is to get the funds for the environmental impact statement so DEQ can get back to issuing authorizations under the CAFO general permit.

Terry McLaughlin asked if an environmental impact assessment is an EIS or an EA?

Jim Madden said that it is an EIS. The court ordered an EIS to be done. DEQ had done an EA, which is a shorter version.

Terry McLaughlin asked if the EIS would be a blanket EIS for the whole state for the general operation methods?

Jim Madden said yes, the court directed the Department to do an EIS that would assess the impacts of CAFOs statewide and of the Department's permitting of CAFOs statewide.

Action Items

Arsenic Standard Recommendation

Terry McLaughlin said at the last meeting there was some discussion regarding the adoption of the lower arsenic standard by the state to match the federal standard. Claudia Massman gave the Council some information on why the state had not adopted that particular new standard at that time. From that discussion the Council decided to make it an action agenda item for this meeting. Terry McLaughlin requested everyone to be prepared to have a vote on this on whether or not the Council wanted to make a recommendation to DEQ regarding the issue. If the Council did want to make a recommendation to DEQ, the members were asked to have ideas as to what would be in that recommendation.

John Wilson said the adoption of the new arsenic standard for Montana has been something the Council has been dealing with for a number of years. Looking back at the minutes, there was a recommendation in the past by the Council to the Board of Environmental Review (BER) recommending adoption of the federal standards. This never happened because DEQ legal staff looked at it and decided that could not be done because of the Montana statute. This is a revisit of that issue. Claudia Massman briefed the Council at the last meeting with regard to Montana law in regards to arsenic standards and all carcinogens. The question before the Council is has the federal government formally adopted new arsenic standards? If the federal government has, should the Board of Environmental Review adopt those same standards? Or, has the federal government not adopted the standards; therefore Montana should not adopt them?

If you look at the Montana Code, what the Montana legislature set out in 1995, it says there will not be a standard for carcinogens that protect human health with certain risk levels. They set the risk levels and said the standard was going to be these specific risk levels, but they put in a however. The however said, if a standard is established for arsenic or other carcinogens that violates the maximum contaminant level obtained from EPA rules 40 CFR, part 141, then those maximum contaminate levels must be adopted for Montana as the standard. EPA on January 22, 2001 as part of 40 CFR, part 141, which is what is referred to in the Montana Code, adopted two standards. EPA established a health based, non-enforceable MCL level goal for arsenic of 0 µg/L and an enforceable MCL for arsenic of 10 µg/L. It is clear that what the Montana legislature intended was, if the federal government changed in either direction, either more rigid or less rigid, that the state of Montana should follow suit. The federal government did become more stringent. The federal government adopted, based on over a decade of

information, the more stringent standard to reduce the significant health risk. It is important to note that the original arsenic standard of 50 µg/L was adopted in 1940. A lot of science has happened since then. The Bush administration through EPA, adopted those standards on January 22, 2001, which in John Wilson's mind means that the state of Montana is required by law to adopt those standards under the Montana Codes. There are some compliance dates that stretch out to 2006, but the point is that until the Department or the Board of Environmental Review adopts the standard then they are not adopting the compliance schedules. This is how John Wilson sees it and he wants to hear from others if that is a correct interpretation of the law.

Terry McLaughlin said he would like to read a quote from the Federal Register, March 25 2003. "These arsenic values are effective January 23, 2006. Until then the MCL is 0.05 mg/L and there is no MCLG."

Claudia Massman said she had talked to John North to verify the Department's interpretation of this. DEQ's interpretation of the rule EPA adopted to lower the arsenic standard is that EPA did lower it to 10 µg/L, but it has a compliance date of January 23, 2006. In the 40 CFR, part 141, it says the MCL at present is 50 µg/L or 0.05mg/L until January 23, 2006. The old MCL is what is in effect until 2006. All EPA did in adopting the new arsenic standard of 10 µg/L is to put in a delayed effective date of the new MCL and called it a compliance date. That MCL is not in effect until 2006. Under the state statute, as per John North's interpretation and what DEQ told BER, is that DEQ is prohibited since the statute says it is either the health-based risk standard or if that is less stringent than the MCL, the MCL is adopted. Right now the MCL is still 50 µg/L.

John Wilson asked if that was under 40 CFR?

Claudia Massman said yes it is in several parts of 40 CFR. Forty CFR part 141.62 gives the new arsenic standard of 10 µg/L. Forty CFR part 141.6 gives the effective date which says the new arsenic standard is not effective for purposes of compliance until January 23, 2006. Forty CFR 141.11 says the maximum contaminate level for arsenic is 50 µg/L until January 23, 2006. Putting all those pieces together the MCL today is still 50 µg/L.

John Schwarz said he would make a motion. Based upon what the Council received, John Wilson is to be commended for the research he has done. It is premature for this Council to be involved in making a recommendation on this. John Schwarz made a motion that the Council tables this item until the November 2005 meeting or the last quarter meeting of 2005. That would be when the Council should make a recommendation on this.

Peggy Trenk asked with the way DEQ is interpreting the law and the statute that is in place, would DEQ be able to roll right into the new standard in 2006? Is there anything in the statute that would inhibit the new standard when it became effective? Is there anything the 2005 legislature would need to do?

Claudia Massman said in answer to the first question that was correct. As soon as the year 2006 rolled around and the new MCL is effective, there is nothing stopping the Board from adopting it. In fact that is what the statute would tell BER to do.

John Wilson said this is cloudy because the federal regulations are saying two different things. There are places where it says this is the standard and Claudia Massman has found places where it says it is not the standard. This is a health issue for Montanans. As an advisory council, we need to be aware of that. The Council could move to put it in the legislature to have them adopt it because the science is clear and available. It is in the best interest of Montanans to adopt that standard as quickly as possible so Montana can come into compliance and reduce the health risk for the people who live in this state. John Wilson is not convinced at this point by what Claudia Massman said and wants to do some more research. The compliance date is 2006, but the standard adoption date was in 2001. If the Council wants to table it, do not table it to a particular meeting. The Council members should have the opportunity to bring it up again as more research is done.

Terry McLaughlin asked John Schwarz if he would be willing to consider modifying the language of his motion that the issue would be tabled until new and relevant information is brought forward that might shed new light on it and the Council might want to take it back up?

John Schwarz said that is fine. John Wilson is correct that this is a health issue. There is concern that it is a health issue but it is also a financial issue and a lot of smaller systems have to deal with the financial impact of this. This item should not be taken to the Legislature to increase the effective date because the Legislature has to deal with a lot of other issues. There is reason to suggest letting the timing play out that has been put in place. This is something we as an advisory council should be involved with. John Schwarz hopes the Council would not take a position on this at this time.

Scott Seilstad said he would have to agree. The reason that the effective date was five years past the date EPA set the standard is to give some of these systems time to come into compliance and look into some of the new technology to do that. DEQ should give these smaller systems in the small communities where there is naturally occurring arsenic time to come into compliance without overburdening them.

Terry McLaughlin said that in the federal language, the actual language is written to say the systems have to be in compliance, not states in terms of having MCL's codified in their regulations on January 23, 2006. Contained within the same federal register quoted from earlier, is a section that reads, "For systems that may need additional time to come into compliance with the rule for cost or technical reasons, there is an exemption process SDWA §1416 under which eligible systems may receive additional time if necessary." There was a 5-year time frame from when the rule was adopted vs. when it is suppose to be in compliance or when it would go into effect. What is not clear is whether EPA is identifying the date when a state must adopt the standard or if that is the date drinking water systems need be in compliance. There is ambiguity in the different documents as to what is meant. Should we ask from DEQ to develop for the Council's benefit a fact sheet that looks at the important elements of this to help clarify it? There is so much documentation to filter through and still end up being uncertain as to whether we are talking about the states adopting it on January 23, 2006 or if the drinking water systems have to be in compliance on January 23, 2006.

John Dilliard said the state through the primacy process is actually required to adopt that standard prior to that date. The January 23, 2006 date is the compliance date for the water systems with the exception of anyone who gets an extension under the State Drinking Water Act. Montana has effectively already adopted the drinking water standard, but it does not need to be complied with until January 23, 2006.

Terry McLaughlin asked if “complied with” means individual drinking water systems?

John Dilliard said yes it is when individual drinking water systems need come into compliance with that requirement.

Terry McLaughlin asked if it was codified within Montana regulations?

John Dilliard said yes it is codified.

Terry McLaughlin asked why is there is an issue on this?

Claudia Massman said there are two different sets of rules. John Dilliard is talking about the drinking water supply rules. There are separate rules for public water supplies where the standard is 50 µg/L MCL and another rule saying the new standard will come into effect later. WPCAC is concerned with amending WQB-7, which are the numeric standards for all surface waters in Montana. Right now the standard is the health based standard of 18 µg/L, not the 50 µg/L MCL at this point. By going to the new MCL of 10 µg/L it will reduce it from 18 µg/L to 10 µg/L

Terry McLaughlin said there are two different water programs that are confusing the issue. The fact sheet should clarify what issues the Council is really trying to deal with.

John Schwarz said the ambiguities might not be resolved in a fact sheet and will probably have to be played out as they are applied to systems. If someone develops a well today and it comes out 50 ppb today, that is acceptable. As of January 2006 this well would have to come into compliance but may be given a deferment schedule based on their ability to fund the improvements necessary. There is no reason to accelerate the process.

John Wilson said that when EPA adopted these new standards, the health risk was weighed against the cost of implementing the standard. EPA spent a great deal of time trying to determine what was affordable given how much you would be able to reduce the health risk associated with the elevated arsenic levels. Embodied in the new standard is a cost benefit analysis. It is important as WPCAC to look at cost as we go forward and not put burdens on water systems unnecessarily. The Council is not looking at a cost that is not associated to a health benefit in looking at these new standards and it would be wrong for us to look at it that way. It will be very difficult for public water supplies to come into compliance unless you change the surface water quality standards because that water becomes the drinking water. Unless DEQ tightens up the standard to 10 µg/L through WQB-7, then the costs are being pushed on the drinking water folks that have to extract arsenic from drinking water that may be discharged by someone else. This is not fair to the public or the taxpayers.

Terry McLaughlin said it sounds like there are two parallel tracks: the drinking water and the surface water. From what John Dilliard said the drinking water regulations are already in place and they have their effective date where systems are to be in compliance. Barring their ability to do so, drinking water systems may be granted additional time to come into compliance so half of the battle is already in place. The other one regarding surface water implementation to the same numeric standard is being held off by the federal level and the State's own legislation is prohibited from adopting that lower level. Based on this additional information, everything is going on track and this Council does not need to make any recommendation for any changes. Things are moving forward according to the federal and state schedule. The Council should get back to John Schwarz's original motion barring any additional discussion so the Council can move past this issue.

John Schwarz said he did not have a problem amending the motion to allow it to be tabled to a future date. John Schwarz motioned to table this item until a further date at which time there is additional information or a Council member would like to reevaluate this.

A motion was made and seconded to table the arsenic standard. All approved the motion. The motion carries, the arsenic standard issue is tabled until such relevant information comes forward that warrants this Council to revisit this issue.

John Dilliard asked if the Council would still like a fact sheet on arsenic to be brought to the next meeting?

Terry McLaughlin said it would be very useful to those members who are not close to this issue on a regular basis. It is nice to be able to keep drinking water and surface water separate until they have to be merged together.

Peggy Trenk asked if the effective date is January 23, 2006; does the process for amending WQB-7 need to back off of that so that it can go into effect? Does action have to begin sometime in 2005 in the state's rule process to make that effective on time? Peggy Trenk would be interested to see when that process would happen for the surface water standards.

Terry McLaughlin said that could possibly be addressed in a fact sheet. A one-page fact sheet that identifies the things that the Council needs to be aware of is all DEQ would have to prepare.

John Dilliard said this is something that must go through BER for final adoption. In general that portion of it is a six-month process. The way it is set up, a request to begin rule adoption starts at one meeting and the rule making process precedes the next meeting, which is two months after that is skipped. The meeting after that is when the rule making packet is brought back for final adoption by the Board. After the Board adopts it, it is another month at least before it gets published in the state administrative notice and becomes effective. It is a 6 to 8 month process once the actual rule making begins.

Terry McLaughlin asked if that would begin at the earliest January 23, 2006?

John Dilliard said that the process could begin anytime prior to that if the Board and DEQ agree to start at a certain time that would coincide with it becoming a rule at approximately the same time. The Department could do some back figuring and determine about at what time to implement the process to change the WQB-7 rules sometime close to January 23, 2004.

Terry McLaughlin said that since John Dilliard is with the safe drinking water group, all appropriate notification for all the drinking water systems have been made.

John Dilliard said that they have already gone through the rule adoption process and all drinking water systems know that the rule is in effect. DEQ regularly sends out notices to tell them what sort of dead lines are coming up that they need to be aware of. Many of the public drinking water systems that know they have a problem with arsenic are already looking at options for treatment.

Revisions to Circular DEQ 4

Ray Lazuk said the changes to Circular DEQ 4 all started with the water softener issue. Historically DEQ 4 never had a prohibition on water softener backwash discharging into septic systems. The circular was revised in 2002 via a Subdivision Task Force. There was some concern from the water softener industry whether such a prohibition was justified and substantiated through the technical information that was out there. Based on that level of concern, a subset of the Subdivision Task Force was formed to look at this specific issue. This subset group met several times beginning mid-2003 and exchanged information. DEQ reached a point where it was ready to make a decision on which way to proceed. DEQ realized that making a change to Circular 4 was a big process as it is adopted in several different programs that require going through WPCAC and BER approval. DEQ thought to take this opportunity to make a few other changes to DEQ 4 to fix some omissions, errors, and contradictions. All the changes proposed to Circular 4 initially went to another subset of the Subdivision Task Force that was looking at the non-degradation rules and guidance documents. After making some changes suggested by the subgroup it was sent out to the entire Subdivision Task Force and a few comments have been received from them.

The packet that was distributed has 10 pages of revisions to the DEQ 4, 2002 edition. Chapter 4 in the section that referenced fill for replacement areas was contradictory. Language that made it contradictory was struck out and to make it very explicit that fill may be used where there is adequate separation distance. In Chapter 5 under wastewater strength, the Circular mentions high strength wastewater that has to be pretreated with a recirculating sand filters and aerobic units or other units. There is contradiction with this in 16.1 that recirculating sand filters can't receive anything stronger than residential strength wastewater. The sand filter in Chapter 16 is a residential design for level two treatment. In Chapter 5 it was meant that it was a special pretreatment system. Chapter 8 (page 6 and 7 of the handout) talks about pressure dose systems, which initiated the change to the Circular. In Table 8-1 and Table 8-2, which are used to size drain fields, it reference that if a system has a certain amount of gravel it needs to be pressure dosed and/or sand lined. Chapter 12 talks about sand line trenches. The language in these chapters was not the same and needed to be consistent. Where it mentions 15% gravel as a trigger for pressure dose, DEQ realized it was a real general classification and the term may not be appropriate and may not need to pressure dose with a sand lined system with that much gravel

depending on gravel type. With input from task force members, DEQ modified that language to refer to gravelly sand or very coarse sands, which would be consistent with the texture that is associated with the percolation rate of less than 3 minutes per inch and extended that language over to Chapter 12 to be consistent. In Chapter 17, recirculating trickling filters, it was pointed out that trickling filter and a recirculating sand filter are very similar. There is only a difference in the filter media. In Chapter 16 where it talks about recirculating sand filters there is a requirement for tank sizes that ensures there is enough volume for residents so the system works properly. Chapter 17 did not have such language and was added for consistency. DEQ now has in front of the Board changes to the level 2 rule. DEQ expects to see those changes occur soon and wants to reflect them in Circular 4 in Chapter 20 and 22. Prior to the new rule being promulgated or amended, DEQ had a set of criteria of what is level 2. Eric Regensburger is here to answer any questions regarding the level 2 treatment. DEQ wanted to clean up Circular 4 so when the new rule comes out, rather than go through all the other criteria to determine if it is acceptable for level 2, DEQ would refer the reader back to the new rule on level 2 treatment. Recognizing that this is being timed simultaneously with the Board changes, after the next Board hearing, there may be need to revise this further to make it more specific to what the actual rule says. This generic approach will allow DEQ to go back into the rule and face decisions on those new rules.

John Schwarz said on Table 8-1, he is concerned about removing the gravelly designation and replacing that with coarse sand. Part of his concern is that sand and gravel are not defined well anywhere. On a spectrum, the sand that is normally placed to line a trench is reasonably coarse sand. A treatment system would normally want a reasonably well-graded sand to keep it from being restrictive. Where DEQ is going with relying on perc test vs. test holes? It doesn't appear to give a lot of clarification there. A lot of sands that would make ideal drain fields.

Ray Lazuk said it doesn't make sense to require sand lining in sandy soils. Where a system gets into the pressure dosing or other treatment under subscript A of the table, DEQ is not relying on perc rates. What DEQ is saying is that if the soil description matches gravelly sand or very coarse sand that is normally associated with <3. If it were that type of gravelly sand or coarse sand then DEQ would require pressure dosing or other treatment. That is just for pressure dosing. When a system gets into the sand lining, look at the last underline portion of subscript A, it says that if the soil is a gravelly sand or coarser textured, then it must be sand lined. That is how DEQ got past the issue of not having to sand line sandy soils.

In the packet given to the Council there was a page and a half for the reasoning for the changes regarding water softener (pages 3-5). The old edition of DEQ 4 allowed water softener backwash in septic systems. There was a recommendation that it shouldn't be discharged into clay soils with shrink soil properties, but that was simply a recommendation with nothing to enforce it. The water softener industry approached DEQ with their concerns. That is when a task force committee was formed to look at these things to see if there was really justification and reasons any changes to the circular should be made. The water softener industry put together a binder with 15 articles of various scientific industry newsletters and an EPA fact sheet. Included in the packet given to the Council are two different articles that give snapshots illustrating the contradictory nature of the subject. The other articles may be made available to the Council. Looking at the scientific data out there, the weight of evidences indicated that there was no significant impact to site septic systems from water softener backwash with the caveat

that the system was operated properly. It was clear that it was going to be difficult if not impossible to get consensus on this. There are very strong opinions on this on both sides of the issue. Lake County was not pleased with this repeal and has it as a local regulation. A letter was sent out to 38 counties/regions in the state for an informal survey asking if they had any problems or had documented any problems with water softener backwash. Responses were received from 13, which are listed in the packet. What the counties did say is that they really don't see a problem with water softener backwash into septic systems, but they do see problems with hydraulic overloading. The biggest cause of this problem is reverse osmosis (RO) units when they back flush. Research was done to determine which states allow water softener backwash into septic systems and which didn't. A majority of states do allow water softener backwash into septic systems. The water softener industry came up with a compromise and looked at what happened in the state of Texas. Texas modified their rules with a compromise that they use a device on water softener that would limit the amount of backwash going into the septic system, called a demand initiated regeneration device (DIR). It gets the water softener away from the timed backwash and goes to a water usage trigger that will then backwash. This means less water going into the septic system with the DIR unit that will help with the overloading problem identified by a number of counties.

Chapter 6 (page 3 of the handout) takes out the prohibition on water softeners. Chapter 7 on septic tank options as added based on the Texas rules that say the water softener has to conserve water, be a DIR type of unit limited to the interior plumbing to prevent treating water unnecessarily. RO units and iron filters were included because they are also factors leading to hydraulic overload. The prohibition was kept on not discharging into aerobic, nonstandard system except for sand filters. For specialized systems, water softeners will not be allowed unless the manufacture specifies that such effluent could be sent to their system. Language was also added to indicate that the overflow might be discharged into a dry well. Chapter 8 addresses drain field size. If extra water is going to be put into the septic system, then the drain field needs to be sized adequately. DEQ is leaving it up to the designer to make sure that the capacity could handle it and eliminate the overloading problem. Several comments from counties indicated that when they found a problem with overloading system it was because the drain field was undersized or not constructed right in the first place. DEQ felt it necessary to make it very clear that if you are going to put more water into the system via a RO unit, iron filter or water softener than the drain field needs to be sized accordingly. DEQ put back the language regarding clay soils. There are different opinions on this. The EPA paper included in the packet says that with the amount of magnesium and calcium being put back into the system there should not be problems with clay soils. There is conflicting information but over all the evidence indicates that this isn't an issue in Montana. DEQ is trying to look at a reasonably fair approach. Changes made to regulations that are going to be enforced statewide have to be based on sound scientific, credible evidence and need to be fair. The purpose of the regulations was to address the overloading issue and still allow people to enjoy the benefits of a water softener. Each of the counties may impose more stringent requirements than what Circular 4 has. If there is an issue that is localized where you think there are problems with water softeners, counties should have a more stringent requirement but it does not need to be imposed state wide.

Terry Murphy said he would like to point out a couple of issues. The county sanitarians seeing failures of waste water systems with water softeners have seen a slimy growth that shows up on systems with water softeners but not on systems with out water softeners. Multiple

pictures have been sent to DEQ showing this growth that seems to be associated with water softeners or high sodium content. Those who are opposed to this have seen some problems with this and documented it. The way the rules were originally worded when the task force looked at them and compromised, there were tight boundaries placed on limiting the amount and timing of discharge. The way the rules are now written does not include any of this language. This is a major concern to those of us in the field. The rules disallow foundation drainage and roof drainage, so why are water softeners being allowed? It is something not required to be discharged to the septic system, so why is it going into the drain fields? Whether there is a hydraulic over load or an over load of any kind, why should we take the risk? There is already enough problems with septic systems.

Ray Lazuk said one of the examples of the green slime was with a recent case that was passed out to the task force members with a recommendation to the water softener people that they should do some investigating. That has been done and they looked at a case where there was slime with a failure in a septic system.

Terry Murphy said the slime has occurred at least three times and DEQ received pictures of the last two cases.

Ray Lazuk said the information that DEQ received from the water softener people is that when these things back flush it is at a relatively low rate but is for a prolonged period. When looking at a compromise, DEQ was trying not to be too detailed because it may not be justified. DEQ looked at basic things that will help the situation, which included the DIR units and sizing the drain fields to handle that discharge. There are a very low number of systems with problems considering the total number that is out there. If there is a problem with water softeners, it doesn't seem to be a wide scale problem.

Mark Spratt said he did some investigations and has a preliminary report. One system that failed was under a maintenance contract and so had salt consumption records that allowed him to calculate how many gallons of water had been treated between the service cycles. The result indicates two different periods of approximately 20 days each when the flows through the system averaged 11,000-15,000 gallons per day. The system was nominally sized for three bedrooms and it was build larger than the requirement and had a maximum loading rate of 540 gallons per day. It appears that system received substantially more water over a period than it was designed for. The system was a sand mound with infiltrator trenches in it. It is uncertain when the failure actually happened, but at some point the owner stuck a hose into one of the infiltrator trenches to facilitate drainage from the system. It has probably been in failure for several years. It is a pretty classic hydraulic over loading situation. We don't know what the cause of the hydraulic over loading is. Based on the salt consumption records, it appears the water softener was working as designed because the flow rates fluctuated dramatically through out the whole period so it doesn't look like the water softener itself was stuck in a constant regeneration cycle. The other interesting thing that comes out of this is it appears the regeneration water for the system amounts to about 7% of the total flow that went through the system. As the industry has stated numerous times, the amount of water that comes out of these water softeners when they are properly operating is a fairly small fraction of the total flow that goes through the system. We have, with the assistance of Lake County, taken a sample of the

slime and are currently analyzing it. The black slime appears to be fairly typical material as a result of when these systems fail. This is an extreme case but the exact cause has yet to be determined.

Terry McLaughlin said there might be specific cases of failures but the focus of the Council's meeting is to act upon what the Department is asking us to provide comment on and advise them. The information that was provided to the Council indicates that there are no wide spread problems with septic tank system failures from the input of the backwash of water softeners in general. Undoubtedly there are times when that may not be the case. Ray Lazuk made a statement that actual local control of this issue should be in the hands of the counties. If these changes were implemented, would it prohibit the counties from being able to have stricter controls over their particular area?

Ray Lazuk said no it would not prohibit the counties. Within DEQ rules and statutes, counties can impose more stringent requirements for waste water systems and water supply systems than what the state does.

John Schwarz asked Terry Murphy if he is suggesting eliminating the units or suggesting having them discharge into a dry well?

Terry Murphy said they are suggesting having it injected into a dry well. Water softeners play a very important role. The water softener industry needs to come up with a solution to develop technology to dispose of the water such as drip irrigation. The water softener industry is not under a lot of regulatory requirements so it should be easy. One point of clarification, the counties can be stricter than the state but can be forced to justify it. Lake County health officials had originally proposed that the rules say local health authorities may choose to prohibit water softeners in the language of DEQ 4.

Ray Lazuk said the attorneys agreed that those types of things are not put into a technical circular. If counties want to make that kind of statement where they can be more stringent it really should be in the rules or the statute. The Circular should stay focused on the technical issues and not the regulatory issues.

Terry McLaughlin asked what is the sense of urgency of bringing this to the Board?

Ray Lazuk said that there has been a prohibition now based on the Circular that water softener dealers can't hook up water softeners to standard household plumbing if it goes into the septic system. DEQ is uncertain on what the compliance factor is, but they are out of compliance if they do install water softener units. Technically they cannot be selling and hooking up water softeners. Even though industries can't hook up water softeners, private homeowners may purchase a unit and hook it up themselves. The urgency here is that the current prohibition is not justified from the technical information and if the water softener people want to sell water softeners then they are breaking the rules.

Peggy Trenk asked if someone had to discharge into a dry well, what kind of cost would that impose on a homeowner?

Ray Lazuk said the option is out there and an individual homeowner may choose to do that. DEQ did not make that mandatory because the evidence shows there is not a problem with water softeners going into septic systems and homeowners who may be forced to put in a separate dry well may not want to do so. If a water softener dealer said they could sell a homeowner a water softener unit but would need the homeowner to put in a separate dry well, there is a possibility the owner will refuse and buy and install a water softener themselves.

John Wilson asked what was the additional cost of an additional DIR system?

Mike Eastwood said there is an additional cost of \$80-\$100 on a unit depending on the size.

John Wilson asked what would be the down side to proposing to change the Circular and a rule item as a dual item to the Board of Environmental Review so the counties would have the authority to clearly adopt a more stringent standard without having to jump through a bunch of hoops.

Ray Lazuk said that is a legal issue. Counties have the ability right now to do it and can impose more stringent standards. There is a house bill that indicated that if a county wanted a more stringent standard then they would have to justify it. If the Council wants DEQ to change the rule or circular then justification needs to be provided. There may be a legal conflict there statutorily and DEQ would need to have Jim Madden answer the question.

John Wilson asked if you could figure out any legal conflicts to do any additional rule making changes that are necessary to let the county sanitarians feel comfortable with those changes?

Ray Lazuk said the counties already have that ability now.

Mike Eastwood said it would be beneficial for everyone, if there were a septic tank failure in his area; he would like to know about it and would like to assist and examine it to determine what is the source of the slime to help resolve the issues. It would be to the benefit of the consumers as well as the water softener industry.

John Wilson said Ray Lazuk looked at all sides of the issues, at other states, reducing and correctly identifying the septic tank failure to hydraulic over loading and trying to address that with the new systems that reduce the flows into the septic systems. Terry Murphy is correct in asking why is DEQ changing it if the water could be put into a dry well and not into the septic system reducing the risk of failure. County sanitarians said they see the septic tank failures but they do not go into the houses and don't know if they have a water softener or not. The people who need to be asked about this are the people who pump the septic systems that have failed. Those folks know and have a good handle on that. A survey like what was done with the county sanitarians should be done for the pumpers to see if they have seen failures and what do they attribute them to.

Ray Lazuk said they did talk to some pumpers at the recommendation of Lake County, and they have said that if it is a properly operated and maintained system there should not be a problem. A far bigger problem is leaky toilets. You have to look at this in a large scale and what is the extent of the problem statewide. No one could prove this is a wide scale problem. It is unreasonable to make a statewide rule on something that is not tangible, especially when it may affect an industry. If there is research done later that suggest there is information that this is a problem then the circular can be changed. There has been research done in the past 15 years that indicates there is not a problem. The change made in 2002 was premature and not based on enough information.

John Schwarz said the process DEQ went through was exceptional but it seems that the problems are more flow rate issues. John Schwarz is encouraged to see that the regulations choose to use better technology and uses flow-based softeners in the recommendations. John Schwarz made motion that the Council forwards a recommendation for approval of the recommended changes to the Board of Environmental Review.

A motion was made and seconded to recommend the Department bring the proposed revisions to Circular DEQ 4 to BER for approval as drafted without substantial comment. Five members were in favor of the motion and one was opposed to the motion. The motion carries.

John Schwarz said this water softener issue should be brought to the Building Codes Bureau and could be implemented through the changes or implementation of the uniform plumbing codes. The issue is that once a house gets built there is not a lot of attention paid to the plumbing fixtures. A way of implementing this would be through a specific amendment to the uniform building code when the state adopts the international plumbing code.

Terry McLaughlin said that it might be worthwhile to provide a recommendation for the counties to recommend to a homebuilder to consider installing a dry well or some other mechanism if they are going to have a water softener unit. If over time the evidence comes in that an increase in water softener system effluent going into a septic system is resulting in increased failures, it can be revisited at that time. It would be a good idea to get a general survey out to the pumpers around the state to see how they feel about the issue.

General Public Comment on Water Pollution Control Issues

There were no comments from the public.

Agenda Items for the Next Meeting

John Wilson said he would like to have a presentation from the Enforcement Division in terms of what their budget is. They have been giving the Council updates about how many people have been cited for violations, a statistical overview and what their executive budget request is for Enforcement activities for the next biennium compared to what it has been in the last several biennium's. We have looked at it in the past and have seen cuts to the Enforcement Bureau and consequently there may not be enough enforcement resources on the ground to get the job done all the rules and laws are designed to do.

Adjournment

Terry McLaughlin adjourned the meeting at 11:45 a.m.