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1	BEFORE THE BOARD OF ENVIRONMENTAL REVIEW	Page 1
2	OF THE STATE OF MONTANA	
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5	BOARD MEETING)	
6	May 13, 2011)	
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8	TRANSCRIPT OF PROCEEDINGS	
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10	Heard at Room 111 of the Metcalf Building	
11	1520 East Sixth Avenue	
12	Helena, Montana	
13	May 13, 2011	
14	9:00 a.m.	
15		
16	BEFORE CHAIRMAN JOSEPH RUSSELL,	
17	BOARD MEMBERS LARRY MIRES,	
18	LARRY ANDERSON, ROBIN SHROPSHIRE,	
19	JOE WHALEN; and HEIDI KAISER (By telephone)	
20		
21		
22	PREPARED BY: LAURIE CRUTCHER, RPR	
23	COURT REPORTER, NOTARY PUBLIC	
24	P. O. BOX 1192, HELENA, MONTANA 59624	
25	406-442-82562	

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1 WHEREUPON, the following proceedings 2 were had and testimony taken, to-wit: 3 4 CHAIRMAN RUSSELL: It is just a few minutes after nine, and I will call this meeting 5 of the Board of Environmental Review to order. 6 7 The first item on the agenda is the review and approval of the minutes of the March 25, 2011 8 9 Board meeting. Any comments, questions, anything 10 need to be changed? MR. WHALEN: Mr. Chairman, I move to 11 12 approve the minutes of the March 25th, 2011 Board 13 meeting. CHAIRMAN RUSSELL: There has been a 14 15 motion to approve. Is there a second? 16 MR. MIRES: Second. 17 CHAIRMAN RUSSELL: It's been moved and 18 seconded. Any further discussion? 19 (No response) 20 CHAIRMAN RUSSELL: Hearing none, all 21 those in favor, signify by saying aye. 22 (Response) 23 CHAIRMAN RUSSELL: Opposed. 24 (No response) 25 CHAIRMAN RUSSELL: Motion carries.

1 The next item on the agenda is the Hearing Examiner's --2 MS. ORR: Mr. Chairman, members of the 3 Board, there is not much more to report other than 4 5 what's on the agenda. 6 In Item II(A)(1)(c), there was a motion 7 for summary judgment that was filed, and we just recently got a response from Berg to the motion 8 9 for summary judgment, and a motion to strike the 10 defense, and to enter judgment in favor of the 11 Department, and so that's pending. 12 And then Item II(A)(1)(j), there was a 13 request to change the hearing date and the schedule leading up to it on May 6th, and so the 14 15 hearing won't be on July 11th, it will be on 16 August 29th. 17 And that's about all I have to report. 18 CHAIRMAN RUSSELL: Is that still going 19 to be in Kalispell? 20 MS. ORR: Referring to? 21 CHAIRMAN RUSSELL: Is that hearing still going to be in Kalispell, Katherine? 22 23 MS. ORR: The one on Meat Production, 24 Inc.? 25 CHAIRMAN RUSSELL: Yes.

1 MS. ORR: I believe so. I can check 2 that. 3 CHAIRMAN RUSSELL: I think the previous packets mentioned that the hearing was going to be 4 5 in Kalispell. 6 MS. ORR: Yes. 7 CHAIRMAN RUSSELL: So anything else? 8 MS. ORR: No, that's it. 9 CHAIRMAN RUSSELL: The next item on the 10 agenda is legislation review. I'm guessing, Tom, you're going to do that? 11 12 MR. LIVERS: Mr. Chairman, John North 13 and I will do that. John will cover the bills. Т 14 may weigh in a little bit on some of those. 15 But basically just as an overview, it 16 was an interesting session obviously, but from the standpoint of impacts to the Department, we took 17 some budget reductions, like all agencies did. 18 19 They're generally things we're going to be able to 20 live with. 21 There were several pieces of legislation 22 impacting some of the key environmental laws, MEPA and the facility siting Act. John will go into 23 24 those that survived, and his focus is going to be 25 -- We're focusing on those pieces of legislation

1 that are directly relevant to the Board.

There are some other bills. We probably 2 3 had several dozen bills that impacted the 4 Department one way or the other, but a lot of 5 those are in areas that really aren't in the 6 Board's purview, under Board jurisdiction. So I 7 could certainly comment on those, but I guess I didn't want to -- I wanted to stay focused, 8 because there is plenty of information that will 9 10 be germane to and impact rulemaking that Board may end up needing to do. 11 12 So with that, I guess I'll turn it over to John North, our Chief Legal Counsel. 13 14 MR. NORTH: Mr. Chairman, members of the 15 Board, John North, Chief Legal Counsel for the 16 Department. I'm passing around a handout here. 17 What I've done is divided the report into three 18 19 different categories. The first one is ones that 20 will require rulemaking action by the Board. The second one is major bills, major amendments to 21 22 statutes that the Board hears contested cases on, and coincidentally adopts rules for a lot of them, 23 24 but wouldn't require rulemaking. Then the third 25 one is general bills which pertain to the

Administrative Procedures Act, that sort of thing,
 general procedural things that apply to the Board.

In the first subset, bills requiring Board rulemaking, there are two bills that will require major rulemaking efforts by the Board, and the others will simply -- the Board will simply need to conform the existing rules to amendments that have been made in the statute.

9 The first one, House Bill 52, is one of 10 those that will require a major rulemaking effort by the Board. House Bill 52 amends the Public 11 12 Water Supply Act to require that the Board adopt 13 rules governing the reuse of wastewater from 14 wastewater treatment plants. The bill provides that the Board should determine what uses can be 15 16 made of reused wastewater, and then set standards for the quality, the treatment standards to 17 determine the quality that the water has to meet 18 19 if it's being reused for that particular purpose. 20 Then third, the Board rules are to prevent the reuse of wastewater from wastewater treatment 21 22 plants unless the rules are met.

This is an effort that's been going on around the nation. The Department has looked at the various statutes and rules that have been adopted around the nation, and the Department will
 be coming to the Board with a proposed set of
 rules to implement this.

4 This bill doesn't become effective until 5 October 1st, but under the Administrative 6 Procedures Act, if we have rules ready to propose 7 to the Board before that time, the Board can 8 actually initiate action earlier than that. Right 9 now I don't know exactly what our schedule is for 10 that.

11 The second bill is Senate Bill 47, and 12 it amends the Clean Air Act and the Board's 13 rulemaking authority, and it basically says that 14 the Board can't adopt a rule regulating forestry 15 equipment and its associated engines that's used 16 for forestry practices if it remains in a single location for less than 12 months, in other words, 17 portable forest equipment. And of course there 18 are exceptions, if necessary, to regulate it under 19 20 the Federal Clean Air Act and rules, then the 21 Board can regulate. This is very similar to an exception 22

22 Inits is very similar to an exception 23 that was put in the Clean Air Act about four years 24 ago, maybe six years ago, that exempted hay 25 grinders from the Clean Air Act. So this would

1	just simply require the Board to amend its rules
2	to take temporary forestry equipment out in the
3	same rule, I think, that exempts hay grinding
4	equipment.
5	CHAIRMAN RUSSELL: John, the hay
6	grinding was a little different, I'm hoping is a
7	little different than this. That was creating
8	emissions, right?
9	MR. NORTH: Yes.
10	CHAIRMAN RUSSELL: Is this the emissions
11	from the engines or
12	MR. NORTH: Yes.
13	CHAIRMAN RUSSELL: Okay.
14	MR. NORTH: Yes, it is. Senate Bill 206
15	is a major, a fairly major amendment to the Major
16	Facilities Siting Act for linear facilities,
17	pipelines and transmission lines. Right now, the
18	Department reviews three corridors. The applicant
19	has to propose its preferred corridor and two
20	alternatives. The Department examines those, and
21	then issues a certificate with a 500 foot
22	corridor, and the line can be located anywhere
23	within that 500 feet. Then if the certificate
24	holder wants to deviate from that 500 foot
25	corridor, the certificate holder has to come in

1 for an amendment to the certificate.

This would change the Department's 2 process for administering MFSA, in that when we do 3 our review of the three corridors, we are directed 4 by this bill to prepare an EIS that covers one 5 6 mile corridors, and so we have done the 7 environmental evaluation for a one mile corridor. Then we still select a narrower corridor 8 9 within that one mile corridor, but if the 10 certificate holder wants to deviate from that narrower corridor, it can do so by notifying the 11 12 Department, as long as the deviation would stay 13 within the one mile evaluation corridor, and as long as the landowners, the affected landowners do 14 15 not object, and as long as the Department 16 determines that the adjustment wouldn't materially increase any unmitigated environmental impact. 17 The next bill is Senate Bill 286. 18 It 19 amends the Strip and Underground Mine Reclamation 20 Act to provide an expedited process, permitting process, for drilling operations that are 21 22 exploring for coal, prospecting for coal. The 23 process currently has very detailed application 24 requirements, and this process provides a 25 streamlined permit application, and actually sets

1 out permit review times in statute.

This is only intended to apply if there 2 is no other substantial impacts, such as blading 3 and dozing of roads, using cut and fill, that sort 4 5 of thing. They have to go through the full 6 process if any of that occurs, but as long as 7 they're simply prospecting by drilling and not creating any other substantial disturbance, this 8 9 new process applies.

10 It doesn't change the reclamation 11 requirements, the environmental protection 12 requirements, or the bonding requirements; and 13 amendments to the strip mine rules will be necessary to conform the strip mine rules to the 14 15 statute, in that the permit application 16 requirements are set out in the rules, and the rules will have to contain an exception saying 17 "except for drilling operations subject to Senate 18 19 Bill 286."

20 Senate Bill 299 is the other major 21 rulemaking requirement for the Board coming out of 22 the 2011 session. It amends the Strip and 23 Underground Mine Reclamation Act again, and 24 requires the Board to adopt a set of regulations 25 that are specific to underground coal mining using 1 in situ gasification.

2 Right now the rules cover it, but they 3 only cover it in a general way by saying that 4 underground in situ gasification has to comply 5 with any other rule that is applicable, and that 6 leaves the persons out there who are contemplating 7 in situ coal gasification to simply guess what 8 their requirements might be.

9 So this bill would require the Board to 10 come up with specific requirements -- application 11 requirements, reclamation requirements, and 12 environmental protection requirements -- for in 13 situ gas.

14 The Department intends -- and you'll see this is to be done by next May. The Department is 15 16 evaluating rules that have been adopted in other states, but it is also intends to hire a 17 consultant to glean from the environmental 18 19 perspective what Montana's rules ought to contain, 20 and obviously the Department will be coming to the Board sometime, I would anticipate no later than 21 22 the January meeting, perhaps even the December 23 meeting.

And finally, Senate Bill 297 removescoal beneficiation plants from regulation under

1 the Strip Mine Act, and a beneficiation plant is commercial facility where the coal is prepared, 2 and it defines it as coal preparation where the 3 preparation occurs is owned by someone other than 4 5 the strip mine operator. So the idea is that if 6 the strip mine operator is operating a 7 beneficiation at the mine or close thereto, it is covered under the act; but if another party is 8 doing it, simply buying from the mine, then that 9 10 party is not covered.

11 This bill has a unique feature because 12 it becomes effective only upon approval by the 13 Secretary of Interior. Of course that's because 14 our strip mine program is one of the delegated 15 programs, and consequently we have to have federal 16 approval for that. And we asked that this be put in because we have serious doubts that the 17 Secretary of Interior will approve this, and we 18 19 did not want to, one, to be allowing actions to 20 occur based on this until the Secretary of Interior approves. 21 22 So we think that coal beneficiation,

23 whether or not it's owned by a coal company, is 24 required to be regulated with certain exceptions, 25 those at power plants, that sort of thing. So I don't know that this one will ever come into
 effect.

3 Some other bills of interest. House 4 Bill 28 amends the Sanitation in Subdivisions Act 5 to say that a drainfield mixing zone has to be 6 located within the boundaries of the proposed 7 subdivision unless you obtain an easement or other 8 authorization if it's public land for the mixing 9 zone to extend beyond the boundaries.

House Bill 352 amends the Public Water 10 11 Supply Act to allow the Department to grant a 12 variance of up to five years for a public water 13 system that has a nitrate violation to use bottled 14 water. The intention there is, if the Department 15 is to use that, to have a compliance plan in place 16 to bring them into compliance within five years. And you'll also notice that they have to post 17 signs and deliver notices where variances have 18 19 been granted.

20 Senate Bill 312 is a major overhaul to 21 the way we administer the Hard Rock Mining Act, 22 the gold mining/silver mining law. It makes the 23 process, the permit review and approval process, 24 very similar to what's in the Water Quality Act 25 and rules and Air Quality Act and rules, in that

upon receipt of an application, we have a certain period of time, I think it's 90 days, to review and determine if it's complete, and make a preliminary determination as to whether it meets requirements of the act.

6 Once we have determined on a preliminary 7 basis that it does, we then issue a draft permit. The draft permit goes out for public comment along 8 with our MEPA compliance, which is not done until 9 10 we've issued a draft permit; and then the MEPA is 11 done on the issuance of the draft permit as a 12 final permit; and then once MEPA is done, then we 13 can either issue the draft permit as a final, deny 14 the permit application, or issue the permit in a 15 modified fashion.

16 Senate Bill 320 modifies the Major Facilities Siting Act by exempting more facilities 17 from the act. New transmission lines that are 230 18 19 KV or larger are exempt -- ones smaller than that 20 are exempt already -- when the operator obtains right-of-way from 75 percent of the landowners 21 22 owning at least 75 percent of the land. So this 23 extended that to any power line no matter -- 75/75 24 to any power line, no matter what the size. 25 The second one is new transmission lines

1 that are collectively less than 150 miles in
2 length, and go to the grid from basically wind
3 generation, biomass, certain small electrical
4 generation facilities.

5 And finally, upgrades are now exempt. 6 So an upgrade of 69 KV to 230 can be done without 7 Major Facilities Siting Act review.

And the last bill in the ones regarding 8 9 the acts administered by the Board and the 10 Department is Senate Bill 367. At some point the 11 Board is going to be adopting numeric nutrient 12 standards, and there is a concern out there that 13 the standards may be so stringent that there may be difficulty in meeting those standards by 14 15 municipalities and so forth.

16 So this adopts a variance process, three 17 kinds of variances: General variances, individual variances, and alternative variances. And people 18 19 can either come under the general variance, which 20 I think can be good for twenty years, but with three year reviews to determine whether or not the 21 22 technology has advanced to the point where the Board standards can be met. And for those that 23 24 can't meet the general variance criteria, there is 25 individual variances and alternative variances as

1 well.

2 So the idea is that the Board would 3 adopt standards that are protective in terms of 4 nutrients; and then if those are too stringent to 5 meet, then there is a methodology for slowly bring 6 the dischargers into compliance given the state of 7 technology, and given the economics, so that Board 8 standards can be met eventually.

9 Then general bills. House Bill 23 10 amends, just clears up an ambiguity in the bill sponsor notification requirement. I think as you 11 12 know, whenever any agency that administers an act 13 adopts rules to implement a statute or an amendment to the statute for the first time, they 14 15 have to notify the bill sponsor when they begin 16 drafting, and then they have to send the bill sponsor a notice of proposed rulemaking, and give 17 18 them an opportunity to comment at both stages.

19 Right now the statute can be read to say 20 that we have to phone them, we have to write them, 21 and we have email, all three; and this simply 22 clarifies that any one of those complies.

House Bill 543 amends the Administrative Procedures Act when it comes to adopting federal rules or other model codes by reference, which of 1 course the Board does a lot. There was a bill in 2 the session that would have required that if the 3 Board, if any agency were to adopt a federal rule 4 by reference, the rule could not go into effect 5 until the next legislative session, and until a 6 bill was introduced and approved that rule.

7 That made it through one house, but was killed in the Senate, and this is sort of the 8 9 kinder gentler version of that, which basically 10 says that if we do that, we have to make the full text of the federal rule that's being incorporated 11 by reference available on our website, so that 12 13 people can see exactly what the Board is proposing 14 without having to go to a library or whatever. 15 And we think that's just good government, and 16 shouldn't be a problem for us to comply.

17 House Bill 53 simply says that for those people who have agreed to receive notice of 18 19 rulemakings by email as opposed to hard mail, that 20 we can also send them a notice that you can look 21 at the rule notice on our website if they agree to 22 that, because sometimes we send large notices to 23 people, and it ties up their email, and we don't 24 know if they've gotten it or not. This is just an 25 administrative efficiency bill.

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1	And finally Senate Bill 120 provides	C C
2	that the website of any Board has to have the name	
3	of each member, an address, telephone number, or	
4	email address for each member, and when the	
5	member's term expires.	
6	CHAIRMAN RUSSELL: John, I have a couple	
7	questions. On Senate Bill 120, the term	
8	expiration, is that so people have something to	
9	look forward to or	
10	MR. NORTH: Some legislators may have	
11	voted for it for that reason.	
12	CHAIRMAN RUSSELL: Someone in the Senate	
13	voted against me, so I'm very pleased, and sure	
14	some of them are really looking at that date.	
15	House Bill 543, you mentioned in here	
16	"only if it is reasonable to do so." Is this the	
17	reasonableness about the posting of the federal	
18	regulations, or is it actually something other	
19	than that?	
20	MR. NORTH: I can give you some	
21	background on that. There was another bill in the	
22	session. There were a number of administrative	
23	code bills that were fairly drastic in terms of	
24	their effect on the act and the agencies that	
25	died.	

1 There was another one of those bills that said that agencies could -- Right now the law 2 is that in order to adopt a rule, we have to find 3 that it's reasonably necessary to effectuate the 4 5 purposes of the statute. One of the bills would 6 have taken away "reasonably," and said that it had 7 to be absolutely necessary, an agency had to find it's absolutely necessary to administer the act. 8 That bill failed, and this bill is also 9 10 sort of a kinder gentler version of that which really affirms the reasonableness standard. 11 12 Mark Fix is joining the OPERATOR: 13 meeting. 14 MR. NORTH: And so this pertains to 15 whether or not the agency should adopt it by 16 reference as opposed to adopting it in toto. So for example, if a federal rule is one paragraph 17 long, it may be more reasonable to simply put the 18 19 language in the rule, in the state rule itself, as 20 opposed to incorporating it by reference. That's 21 the kind of consideration that that's 22 anticipating. 23 CHAIRMAN RUSSELL: Any comments for John 24 or other Department --25 MS. SHROPSHIRE: I have a quick

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1	question. What transmission lines still fall	Page 20
2	under the Major Facilities Siting Act? It seems	
3	like everything is gone, but I wasn't sure what	
4	was left.	
5	MR. NORTH: Well, nothing where they can	
6	obtain 75/75, 75 percent of the landowners owning	
7	75 percent of the land. So it's now the others,	
8	and it's above 69 KV.	
9	MS. SHROPSHIRE: Okay.	
10	CHAIRMAN RUSSELL: Maybe this is for	
11	Katherine. We have some cases that are just	
12	Will they affect the two that we have?	
13	MS. ORR: I'd have to look at the	
14	effective date. I don't know if they're	
15	retroactive, or effective on approval, or	
16	effective in October.	
17	MR. NORTH: If you're talking about the	
18	Senate Bill 320 excuse me Senate Bill 206 on	
19	the permitting process, that applies, has an	
20	immediate effective date, but it's only applicable	
21	to certificates issued after the effective date of	
22	the act. So anything that's under current	
23	challenge wouldn't be affected by it.	
24	CHAIRMAN RUSSELL: Which makes sense.	
25	MR. LIVERS: It was certainly a bill	

1 that was at least in part prompted by some of the 2 concerns that have been raised that have come before this Board. 3 4 CHAIRMAN RUSSELL: John, thank you very 5 That was very informative. much. 6 The next item on the agenda is some 7 thoughtful discussion around EC and SAR. 8 MR. LIVERS: Mr. Chairman, as you'll 9 recall, the Department requested and the Board 10 initiated last spring its triennial review of water quality standards, and included in that 11 12 review was a specific focus, not exclusively, but 13 a focus on electrical conductivity and sodium 14 adsorption rate. We kind of reported back to the 15 Board last fall on the other aspects of the 16 triennial review, and now we're coming back to focus particularly on the EC and SAR discussions 17 and some of the updated rationale. So Art Compton 18 19 from the Department is prepared for the 20 presentation this morning. 21 MR. COMPTON: Good morning, Mr. 22 Chairman, and members. Art Compton from Water 23 Quality Standards. Mr. Chairman, this power point 24 presentation is going to be brief by design to 25 leave some time for Board discussion.

1 The first thing that I'll touch on is the legal and administrative steps that have taken 2 3 the Board to where we are this morning on the question of EC and SAR issues; we'll take a very 4 brief walk through the science; and we will 5 6 conclude with the Department's recommendation that 7 no additional rulemaking is necessary at this 8 time.

Page 22

9 This is the Tongue River at the USGS 10 stateline station. In fact, the Montana permitted discharges all come into the river not too far 11 12 from this station. This is the Powder River close 13 to the Wyoming state line at Moorehead, Montana. 14 We don't have any discharges in Montana to the 15 Powder. However, as I'm sure you're aware, the 16 Powder hosts the bulk of the CBM development in 17 Wyoming.

18 The Board's involvement with the EC and 19 SAR issues began in about 2002 when the Department 20 started briefing you on our work that had dated back several years, and you were also petitioned 21 22 by some agriculture and conservation groups to establish numeric standards. At the time Montana 23 24 had a narrative standard for salinity and sodium, 25 which means that there can't be levels of these

constituents in state waters that affect the
 beneficial use, a narrative standard.

As you'll recall, Mr. Chairman, a pretty 3 exhaustive review going over several years, 4 5 probably a dozen public meetings. The Board had 6 us establish a collaborative group within the 7 industry and the water users, and we hired a technical expert from UC Riverside in California. 8 9 The culmination of the compilation of 10 that administrative record was that the Board adopted numeric standards in 2003. They were 11 12 approved later that year by EPA. And again, 13 numeric standards mean that instead of a level that can't affect beneficial use, we have actual 14 15 numbers. Again, we'll take a brief walk through how we arrived at the numbers. 16 I've heard the difference between a 17 narrative standard and a numeric standard, an 18 19 analogy, is compared to telling your preteenager, 20 a narrative standard to be telling your preteenager that he or she have to go to bed when 21

22 they get tired. A numeric standard would say 8:30
23 p.m. So again, that's a reasonable analogy.

24 The BER -- Generally most parameters 25 that have numeric standards, they also have a 1 numeric anti-deg limit, and the Department recommended and the Board adopted an approach that 2 left the narrative nondegradation limit in place. 3 So instead of the nondeg limit being a fraction of 4 5 the standard, it's essentially the same as the 6 standard. And I have some slides on nondeg later 7 on that I won't call up unless there is discussions on nondegradation. 8

9 So we have numeric standards in place, 10 but a narrative nondeg criteria. In 2005, the Board was petitioned by some of the same 11 12 agricultural, and conservation, and water use 13 groups to get rid of that narrative nondeg 14 approach, and adopt numeric standards, a numeric anti-degradation limit as well. It also asked 15 16 that the Board require reinjection of produced water and a few other administrative adjustments. 17

18 Following compilation of another 19 administrative record through public hearings, several Board hearings, Board discussion, in 2006 20 the Board adopted that numeric nondegradation 21 22 criteria, but did not require, did not adopt the requirement to reinject all produced water. 23 24 The EPA approved the 2006 rulemaking, I 25 believe it was in February of 2008.

1 Following that, a Wyoming producer filed suit against the Department and the Board in State 2 District Court in Montana. Also the State of 3 Wyoming and other Wyoming producers filed suit in 4 Federal Court, the Federal District Court in 5 6 Cheyenne, Wyoming, against EPA for not 7 disapproving that 2006 and 2003 rulemaking. And again, you can see the items of complaint there at 8 the bottom of the slide. 9

10 Montana prevailed in State District 11 Court. That was appealed to the Supreme Court and 12 The State of Wyoming and Wyoming upheld. 13 producers won in Federal District Court in 14 Cheyenne, and when that happened, the Federal 15 Judge remanded our Montana state standards back to 16 EPA for reconsideration, or whatever a remand means. I might add that they remain, and that's 17 where we are today. I might add that our State 18 19 standards are in effect inside the state, but they 20 don't apply outside of Montana, and they are not 21 enforceable against upstream states.

So as Tom mentioned, we decided to take advantage of this remand period by tightening up the technical basis that we produced back in 2002 for the standards. As an element of the triennial review, we did a specific solicitation for public input on those standards. We compiled every study we could find that had been undertaken between 2003, the Board's original action, and 2010, technical studies that reflect on produced water, salinity, sodium, what have you. Page 26

7 We posted those to support public 8 comment, and had a 60 day public comment period 9 that ended in June of 2010. We received about 70 10 comments. Those 70 comments constituted about 48 11 issues, and as you might have noticed in your 12 packet, those comments and responses are Appendix 13 II to your updated rationale.

So again, I'm going to go through this pretty quickly, a brief walk through the science. I would encourage, Mr. Chairman, anybody who has a question to stop the discussion right then, and work that out.

19 Salinity is generally measured by TDS.
20 We use electric conductivity as a measure of
21 salinity. And when you think salinity, you think
22 of harm to plants. The greater the soil salinity
23 in the soil and the soil water, the harder time a
24 plant has in drawing moisture out of that soil.
25 Sodium or sodicity is a ratio, sodium in

1 the numerator, and calcium plus magnesium in the 2 denominator, and sodium affects not plants, but 3 Higher clay soils, tighter soils, as the soils. sodium, the SAR, sodium adsorption ratio 4 increases, it tends to break down clay soil 5 6 structure, it reduces infiltration into the soil 7 and permeability of the soil, the hydraulic conductivity of the soil. So again, when you 8 9 think salinity, think plants, crop, forage. When you think sodium, think clay soils as being 10 11 particularly susceptible to elevated effects.

12 Salinity first. EC effects depend upon 13 the crop. In the Tongue, we used field beans 14 because they and truck vegetables, truck fruit and 15 vegetable farms produce, like strawberries, other 16 common fruits, all have about the same salinity 17 tolerance, and they are the most sensitive crops 18 grown.

19 Irrigation practices. The more water 20 you put into soil, the more that winds up being in excess of the plant's agronomic need. 21 That water 22 moves through the root zone, and tends to flush 23 salts from the root zone, and you can get by with 24 higher EC's, the more water you put on them. 25 And then finally, the proportion of

rainfall to irrigation water is important, because
 rainfall, the EC of rainfall is essentially zero,
 so it tends to buffer the salinity in irrigation
 water.

5 This is a graph out of the authoritative 6 literature that shows different leaching 7 fractions, and the way those leaching fractions 8 affect the difference between the irrigation water 9 you apply and the average root zone salinity.

10 And for the Tongue River, we used a 15 percent leach rate on advice of our technical 11 12 expert. On the Powder River, we used 30 percent 13 leach rate. That comes right out of the 14 authoritative literature. On the Tongue you have 15 more sprinkler and conventional flood irrigation, 16 which is more efficient, and that's why the 15 percent leach rate on the Tongue. And again, the 17 18 30 percent on Powder comes right out of the book. 19 So again, to set the salinity criteria 20 for the crop, we've got our most sensitive crop -that's field beans, some people call them pinto 21

22 beans or common beans. We will out of the 23 literature get the soil water/EC threshold, above 24 which point that particular species of plant -- in 25 this case field beans -- is going to have a tough

1 time drawing water out of the soil.

We have a leaching fraction. I mentioned those. And on the Tongue, we will have a proportion of irrigation water to precip, and we will not have that on the Powder, and I'll explain why when we get there.

7 So again on the Tongue, we have an average annual precip of about 14 and a half 8 We have an infiltration factor of 80 9 inches. 10 percent. That comes right out of the literature. That's the amount that infiltrates. 11 The other 20 12 percent tends to run off on an average. That 13 gives you an effective infiltration of eleven and a half inches. 14

15 The agronomic need of plants and forage 16 in the Powder River/Tongue River Basin is 30 17 inches. That's going to -- You multiply that by 18 1.15 -- remember 15 percent is our leaching 19 fraction that moves through the root zone -- and 20 that gives you an agronomic need of 34 and a half 21 inches.

22 So irrigation water, the amount of 23 irrigation water you're going to have to apply is 24 going to be the agronomic need minus the effective 25 infiltration, and we come up with 23 inches. This

1 sounds kind of academic, and it is. It's a fairly academic mathematical calculation. Our ground 2 truthing, though, we've been told by at least one 3 Tongue River irrigator that in fact he puts about 4 two feet of water a year on his crop with a pivot. 5 6 The correction factor then will be the 7 precip plus irrigation water, divided by the irrigation water, which leaves you with a dilution 8 factor or a correction factor of 1.5. Clear as 9 10 mud, I know. 11 So again on the Tongue, field beans. 12 The published literature says that they need soil 13 water that is less than or equal 1,000 14 microsiemens per centimeter. If it goes above 15 that, you start seeing a decrease in the yield in 16 your field bean crop. Out of one of the authoritative 17 publications, Ayers and Westcot, 1985, it's one of 18 two documents that most ag salinity experts 19 20 consider the bibles, at a 15 percent leach rate, that means the irrigation water has to be at 667. 21 22 You apply the correction factor of 1.5, and it takes you back to 1,000, and in fact, that is our 23 24 irrigation season standard on the Tongue for EC. 25 The Powder is much simpler. You don't

have to go through all those equations and all that math, and the reason you don't is the target crop is alfalfa. That has about twice the salinity tolerance of field beans and the other more sensitive crops grown on the Tongue. So again, from the bible, irrigation water has got to be less than or equal to about 2,000. Page 31

8 I mentioned that we are using a 30 9 percent leach rate. There is no -- At a 30 10 percent leach rate, the irrigation water and soil 11 water is one-to-one off the graph I showed you 12 before. So we don't need to change the 2,000 13 there.

14 But on the Powder, because irrigation 15 water is so iffy -- it's not available all of the time -- a lot of the time it's not available 16 because it's too saline to put on the crops, and 17 some of our stakeholders, the agricultural 18 19 operators in the Powder that we work with, are 20 pretty darn good at figuring out when they can open those head gates, when they can make the 21 siphons available to their fields for their flood 22 23 irrigation. They use salinity meters generally. 24 Again, they had become expert at using what is a 25 marginally supportive water source, the Powder

1 River, to support their alfalfa crops.

So because you don't have sufficient water to fully meet that agronomic need, you're probably not going to get a full three cuttings in most years. The water balance that we used on the Tongue to come up with a correction factor cannot be calculated. Therefore, it's the 2,000 right out of the book.

9 Again, as you might have noticed in your 10 rationale, personal communications from Powder River irrigators, one of whom doesn't put water 11 that exceeds 2,000 on his fields, another one that 12 13 does not put water that exceeds 1,700 EC on a new 14 alfalfa crop. So again, our ground truthing, this fairly academic exercise, led us to believe that 15 16 we're at about the right place.

The tributaries are the third sort of 17 type of water body, if you will. The calculations 18 19 that brought us to where we are on the Tonque and 20 Powder don't work on the tribs because rather than having a 50 percent leach rate on the Tongue and a 21 22 30 percent leaching rate on the Powder, tributaries only catch enough water through 23 24 spreader dike systems and the head gate systems on 25 their lower reaches to get enough water to leach

the roots, the root zone, about once every eight
 to ten years.

Therefore, there is three publications 3 4 listed up there, and they're also in the references section of your rationale, that as you 5 6 probably saw from Appendix I of the rationale, you 7 have a fairly complex and extensive set of calculations, including precipitation, probability 8 curves, and all that stuff, assumptions for 9 10 initial soil salinity, and water holding capacity of soil, brings you to your final number. And the 11 reason that we put it in the appendix is because 12 13 it is a pretty unwieldy set of calculations. It's 14 not easy to get through.

15 But what it brings you to the end is 16 that a standard of 500 microsiemens per centimeter for salinity will result in soil salinity of 2,300 17 microsiemens, if you get a leaching -- if the last 18 ten year look back gives you a leach event, enough 19 20 rainfall to leach once every eight years. If it's once every ten years, then that soil salinity has 21 built up to 2,800. 22

Those two numbers result in an alfalfa yield decrease of 2 to 5 percent. And remember, our job here is to protect beneficial use. That's 1 as high as we can go. You might have noticed in your rationale that we ran the numbers to 600 as 2 well, and that 600 brought us up to a yield 3 decrease of, I think, 6 to almost 10 percent. 4 Too 5 much. That's not being protective of beneficial 6 use, and again, that's why the standard for 7 salinity is 500 on the tribs.

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Sodium again impacts soils, and 8 Sodium. so the sensitivity of soils has a bearing here. 9 10 However, the Montana standards are drawn from the published literature, and the charts that I show 11 12 you are pretty much blind to soil type. What that 13 means is that our sodium standards or SAR standards may be a little overly protective for 14 15 loose, sandy, loamy soils. They are probably 16 about right on target for soils that have a clay factor, a clay constituent to them. 17

18 And as we learned in one study that we commissioned since you were all here last, very 19 20 sensitive soils -- soils where you're looking at a 21 clay content up above 50 percent, or a smectitic 22 clay they call it. That's the most problematic 23 kind, a proportion greater than 30 percent --24 they're probably not even protective enough for 25 that. But what we did is we gauged our numbers on what we felt were the most sensitive soils that
 are widespread in the basins.

The second thing with the sodium is the 3 salinity of water makes an effect on how damaging 4 sodium can be to that soil. The higher the EC, 5 6 the more sodium you can get away from. And the 7 reason that that is so significant, and we pointed out here, is that rainfall -- again, remember with 8 9 its zero EC -- tends to lower the salinity of the 10 soil water, and that exacerbates the existing level of sodium. 11

12 In other words, a clay soil can 13 experience some loss of structure and loss of infiltration ability from a rain storm, with the 14 15 same sodium content. That's why we call it the 16 rainfall effect, and that's why I'm going to talk specifically about that here in a second. 17 And I think this is what we pretty much just talked 18 19 about.

The relationship between salinity and sodium, they are again inexorably tied, is published. It's the most famous diagram in all of agricultural salinity management literature. It's called the Hanson Diagram, and there it is. It's pretty much self-explanatory. As you can see, as the EC of irrigation water increases, the relative effect of that same amount of sodium is going to go down. Page 36

So ordinarily, what we do to generate the SAR levels that correspond with the EC level that is standard, if you'll take your 1,000 on the Tongue, and you'll see at an EC of 1,000, you can get away with about an SAR of five without causing a decrease in infiltration. But now we have to make way for the rain. We have to add precip.

11 MS. SHROPSHIRE: Can you go back to that 12 graph, the top graph, or the top line. What are 13 the differences between the two lines?

14 MR. COMPTON: It's actually -- think of 15 it not -- Ms. Shropshire, Mr. Chairman -- is not 16 necessarily two lines, but three zones. Below the bottom line there is effectively no reduction in 17 infiltration. In other words, the amount of 18 19 sodium in the soil is not enough to cause loss of 20 soil structure, and a decrease in infiltration.

In that middle zone, you're going to have slight to moderate decrease; and then of course, on the far left side, you're looking at a severe reduction.

25

MS. SHROPSHIRE: For what soil types?

1 MR. COMPTON: Actually, as I mentioned, this is blind to soil type. This is average 2 That's why I mentioned that, again, very 3 soils. loose and sandy soils, maybe our numbers are a 4 little lower than they need to be. 5 The smectitic 6 soils that are widely distributed through both the 7 Tongue and Powder River Basin, and that we know some of our operators are trying to make a living 8 on, their numbers are about right; and we have 9 10 found that for some very problematic soils, almost 11 nothing helps. 12 The literature, since you were all here 13 last, has emphasized the importance of applying this rainfall effect that I'll talk about next. 14 15 And again, you can see these quotes. But 16 basically what they're saying is what our staff Ph.D. water chemist and our hired expert felt was 17 important to do eight, nine years ago. 18 The 19 literature has caught up to their positions now. 20 And as you can see, three studies in 2006 and 2008 confirmed how important it is to apply this 21 22 rainfall effect. And these cites are in your

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23 references, in your rationale.

24 So here we have the same table, and the 25 smaller red arrow is the change that I just walked

us through on the Tongue. The standard is 1,000,
 so let's assume that an agricultural operator is
 applying water right at the standard to his
 fields.

5 We assumed on the Tongue that rainfall 6 event precipitation could lower the EC and the 7 surface horizons about 30 percent from 1,000 down to about 700. If you follow that red arrow over 8 to the left, and then come down to the line, you 9 10 can see that takes you down to an SAR of about three to prevent harmful effects, and three in 11 12 fact is our SAR standard on the Tongue. Again, we 13 used a 30 percent reduction in EC caused by a 14 precipitation event.

15 On the Powder, we were advised because 16 the EC's and SAR's are higher, and again, the EC 17 of rain water is zero, that a larger correction is 18 necessary. So whereas we used a 30 percent 19 correction on the Tongue, we used a 50 percent 20 correction on the Powder.

In other words, we assumed that a rainfall event could lower the salinity in the surface horizons from 2,000 -- which is our standard on the Powder -- down to about 1,000. And then if you follow that line down, and following the blue arrow, you'll see that takes
 you down to the five that we recommended to the
 Board back in 2003 and that the Board adopted.

That's pretty much what we had to go on 4 5 back in 2003, but we've got more help now. The 6 2006 study led by Dr. Suarez, who is head of the 7 US Department of Agriculture Soil Salinity Lab in California, took Tongue River soils, took them 8 back to California, put them through standard 9 10 benchmark soil analysis protocols, and found that for bare clay soil, an increase from an SAR of two 11 12 to four resulted in significant decrease in 13 infiltration rate. I remind you the Board adopted 14 a three.

This is information we didn't have in 15 16 2003, but I guess the Department looks on it as affirmation that the Board wound up in a pretty 17 good place. You can see for looser, sandier, 18 19 loamier soils, it was significant at the SAR of 20 six level; and then again, the regression models again showed that for both the bare and crop clay 21 22 soils, that infiltration was reduced as you went from an SAR of two to four; and for bare loam 23 24 soil, the decrease in infiltration starts above 25 four percent, and that was the modeled approach

rather than the actual measurements using Tongue
 River soils that were again sampled and taken back
 to the lab.

4 So this is where we wound up in 2003. On the Tongue, 1,000 EC, three SAR. During the 5 6 non-irrigation season, our levels are designed to 7 protect riparian vegetation. Back in 2003, that's about all we told you, Mr. Chairman, that the 8 riparian vegetation requires some modicum of water 9 10 quality during the non-irrigation season; and I 11 think the original technical basis in 2002 said 12 because riparian vegetation is apparently 13 thriving, then we guessed that around the ambient 14 levels are apparently doing it.

15 We have a lot more help now. We have 16 riparian species inventories that DEQ and Tetratech, our consultant, have done on both the 17 Tongue and the Powder that inventory actual 18 19 riparian species, and we did that as part of our TMDL watershed characterization. And then we have 20 a piece of literature led by Dr. Jim Bauder at 21 22 MSU, and with some other investigators, that measured the relative salinity tolerances of those 23 24 riparian species that we inventoried.

25

And to give you an example, the types of

riparian species on the Tongue had a tolerance of about 2,000, EC of 2,000; the Board chose 1,500. On the Powder, the species that we inventoried were in Dr. Bauder's moderately tolerant, rather than sensitive area, they could take actually up to an EC of 4,000; the Board adopted 2,500 back in 2003. Page 41

8 So again -- let me see what I've got next here. That pretty much takes us to our 9 10 recommendations. Again, we feel that the literature that we compiled, the public comments 11 we received, pretty much confirm the need for the 12 13 standards, the way we went about calculating them, and the ultimate values that the Board adopted. 14 15 We don't see anything in the public comment period 16 we went through or in our review of those 40 studies that suggests that we should really be in 17 any other place when taken as a whole. 18

And so our recommendation is that you move not to initiate rulemaking to reopen the EC and SAR standards at this time. Our intention is to submit this updated rationale you have to Region 8 EPA, and ask them to reapprove the water quality standards that the Board adopted in 2003, and the numeric nondegradation approach that the

1 Board adopted in 2006. End of story.

CHAIRMAN RUSSELL: 2 Thanks, Art. I'd 3 like to set this -- I know there is some folks in the audience that want to speak, and then I 4 5 think we're going to have a lot of questions, and 6 it might be better to hear from -- I'm guessing a 7 few of you want to speak to this before we talk. 8 Is there anyone out here wants to speak to this? 9 Are you just going to scowl at us if we make a bad 10 decision? 11 (No response) 12 CHAIRMAN RUSSELL: Mark, did you want to 13 say anything? 14 MR. FIX: Can you hear me, Joe? 15 CHAIRMAN RUSSELL: Absolutely. Yes. 16 MR. FIX: We've been listening in, and 17 basically our thoughts were that the standards were not good enough at the time. We still feel 18 19 that the most sensitive soils were not protected. 20 But you know, I don't think it's worth going through a whole rulemaking process again. 21 I think that the recommendation is good to go ahead with 22 23 proceeding with the standards that you've got, 24 even though we'd like to see better standards. 25 And I've got Roger and Charlie here, and 1 they might want to talk a little bit, too.

2 MR. MUGGLI: This is Roger Muggli. I 3 have a farm in the affected area, and I also 4 manage the Tongue and Yellowstone Irrigation 5 District, and have completed the fish passage 6 project on our diversion dam south of Miles City.

7 And I guess in light of the Suarez report, and using the entire farm, now we have the 8 9 liberty to have all these years of effects of CBM 10 water on our farm. So the whole thing is a test 11 We don't have to worry about sampled spots site. 12 and spots of soil of montmorillonitic clay, in 13 three feet it's changed to something else, or less 14 montmorillonitic clay.

15 Now before the days of this event, we 16 had our alfalfa production up to about seven and a quarter tons per acre, and now we're looking at 17 about a 420. It's falling off of that. 18 We've 19 spent \$90,000 on two pieces of equipment to try to 20 improve soil infiltration to try to move these 21 salts down further into the profile. We're in a 22 habit of praying for no rain, because once the rain events hits this soil that's been irrigated 23 24 with this sodium bicarbonate in it, we're sort of 25 on the back side of this disaster.

1 We're replacing the hay that we're not raising, and it's been the last few years to do 2 from our seven and a quarter to seven and a half 3 4 ton an acre average, we're down to this 420, and it's about \$200,000 event every year. 5 6 And I'm not sure. The barley is 7 supposed to be able to be grown on this. We've watched our barley yield, we always had over 100 8 bushels to the acre average on the farm on our 9 10 rotation, and we used barley, and have used that for years. Now it's down to in that 40, 50 range. 11 12 And in light of that, we're trying --13 this year we raised barley, because we can use it in our feed plant, or do use it in our feed 14 15 processing plant, and which this year we've 16 processed 18,000 tons of pelletized seed product for eastern Montana that we market all over the 17 eastern end of the state and Wyoming, and some in 18 19 North Dakota, and as far west as Missoula. 20 And now we have got this huge problem of this failed attempt to try to figure out what 21 22 we're going to allow this water to be, when on our farm, it's way over the limit. I don't know how 23 24 we're going to get our production back. We've 25 tried everything under the sun, and we can't seem

to get past this 420 range tons per acre. And the
 standards are not protective enough.

And of course everybody has the opinion 3 that if the thing is going to fail, it's certainly 4 5 going to be in the Muggli place because I'm 6 anti-everything. Well, I'm here to say we're 7 pretty progressive. We don't take any -- we're 8 not under any farm programs. We stand on our own two peqs. We don't have any government financed 9 10 stuff through soil conservation, through farm subsidy programs whatsoever. We elected to go as 11 12 a feed plant, and process our product, and then 13 some.

14 And it's pretty disheartening to see this happen to this farm, because of the magnitude 15 16 it has. The ripper machine that we brought, it's a disc ripper, 16 feet wide. We had to hook a 17 Challenger crawler tractor on the front of it, and 18 19 a four wheel drive Wagner tractor on the front of 20 that, to get through this soil, it's such a disaster. And we have the liberty now of looking 21 22 at the entire farm as a test plot.

And we need to -- I would love to have folks come and look at this disaster, but it's a little disheartening to be where we are with this

1 mess.

2 And the Suarez report, as Art stated, was taken on our place, and I translate it a bit 3 different. I tend to look at things in a more 4 5 conservative value. We're doing things with our 6 soil, rather than now looking at soil sample test 7 plots, whatever. We have got the luxury of looking at the entire farm, and the total loss of 8 9 production on this farm. And we're even 10 scratching our heads anymore about maybe we need to even stop farming some of it. 11 12 So I don't know where we are going to 13 go, but it is truly a disaster, and I don't know what we can do about it. I'm pretty disheartened 14 about the whole thing, and really don't know which 15 16 way to go with this. But anyway, that's the sum of it. Thank you. 17 18 CHAIRMAN RUSSELL: Thanks, Roger. 19 Anyone else? 20 MR. MUGGIT: No. 21 Do you have some CHAIRMAN RUSSELL: 22 questions for the Department? 23 MR. MUGGLI: Do I have some? Yes. 24 CHAIRMAN RUSSELL: I know you do, but I 25 thought I'd let the Board.

1 MR. METROPOLIS: Mr. Chairman, members 2 of the Board, my name is John Metropolis. I'm a lawyer in Helena here. I represent Fidelity 3 Exploration and Production, which is the sole 4 commercially viable coal bed methane producer in 5 6 Montana. Its discharge points are 100 miles from 7 Roger Muggli upstream, near the border with 8 Wyoming.

9 I want to try to choose my words very 10 carefully here. Fidelity does not believe any 11 change in the standards is necessary. We strongly 12 disagree with the interpretation of some facts, 13 and some speculation by others that have participated in this decade long effort. 14 So we 15 strongly support the Department's recommendation 16 of no change in the EC and SAR. Thank you.

17 CHAIRMAN RUSSELL: Thanks, John. Other18 commenters?

MS. LINDLIEF-HALL: Mr. Chairman, I guess I might as well jump in here since everybody else has. My name is Brenda Lindlief-Hall. I'm an attorney here in Helena. I represent the Tongue River Water Users Association, as you know, Mr. Chairman. I've represented them since about 2000, and have been actively participating in the

1 establishment of the water quality standards.

The Tongue River Water Users Association does fully support the Department's recommendation that the standards be approved as they are, and resubmitted to EPA for hopefully the EPA's approval.

7 I would like to note one thing however. 8 There has been some discussion here today about 9 the 2006 rule and nondegradation, the 10 nondegradation standards. I would like for 11 everyone just to understand that nondegradation in 12 the coal bed methane context has not to date ever 13 been required. Permits have been reissued, and 14 nondegradation has not been applied.

15 So certainly, while we support the 16 standards, we do feel that the nondegradation rule 17 should be applied as it was promulgated by the 18 Board in 2006. But we do fully support the 19 standards. Thank you.

20 CHAIRMAN RUSSELL: I have a question 21 related to that then, Art. Nondeg has always 22 applied, it's just if it's below the discharge 23 that doesn't clip nondeg, then there isn't any 24 action on nondeg; is that correct?

25

MR. COMPTON: Mr. Chairman, I think what

1 Ms. Hall is referring to is the original Fidelity 2 permits were issued before the Board's action adopting numeric nondeg in 2006. When those 3 permits are renewed, if the discharges do not 4 5 constitute a new or increased discharge, then 6 nondeg is not applied. In order to change the --7 in order to incorporate nondeg into the permit, it would have to be a new or increased source. 8 That. 9 has not been the case with Fidelity discharges.

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10 And that's about the limit of my 11 knowledge on permitting. Jenny Chambers is here, 12 the Bureau Chief from Water Protection Bureau, who 13 could expound on that if you need her to.

14 CHAIRMAN RUSSELL: Just because I have 15 been to the site. Nondeg is applied at the pipe, 16 right? I mean they have a discharge, a pipe that 17 goes into State waters. That's where nondeg is 18 applied.

MR. COMPTON: Mr. Chairman, I think thatwould be a question for Jenny.

MS. CHAMBERS: Mr. Chairman, members of the Board, my name is Jenny Chambers. And yes, that's correct. We would look at two factors. Is the water high quality, or is the water impaired? It's a parameter by parameter evaluation, and then

1 if it's high quality water to that certain 2 parameter, then yes, we would apply nondegradation 3 to any new or increased discharge when we renew a 4 permit, or if we issue a new discharge permit.

5 There has been one newly issued 6 discharge permit with OW Ranch on Hanging Woman 7 Creek that's been referenced before in the past with the Board. We did apply nondeq based on the 8 2006 rules. Fidelity's reissued permit was not an 9 10 increased load or increased source on parameter by parameter look evaluation, and so nondeg was 11 12 already applied in the previous permits.

13 CHAIRMAN RUSSELL: So maybe to set this 14 up a little different, let's say they have 20 15 wells out there, and they want to put five new 16 wells in; but at the pipe, they haven't increased 17 the discharge, and they haven't changed the 18 characteristics of the water.

19 MS. CHAMBERS: Mr. Chairman, members of 20 the Board. Yes, that is correct. And with 21 Fidelity and other coal bed methane dischargers, 22 they have a certain amount of capacity they can 23 run through their treatment process, and so we 24 look at what is the design of that treatment 25 process, and are they increasing how much they

1 could run through that plant or facility. So in the case of Fidelity, they only have one treatment 2 process, which is a plant. All the wells they 3 have produced have to get stored prior to being 4 5 run through that treatment process before they can discharge, so it has not been an increase. 6 7 CHAIRMAN RUSSELL: Thanks, Jenny. Other 8 questions for the Department? 9 MS. SHROPSHIRE: I have a couple 10 questions. The focus has been on the soil type and vegetative, you know, the crop. Have there 11 12 been any macroinvertebrate studies conducted? Mr. Chairman, Ms. 13 MR. COMPTON: 14 Shropshire, actually we have a fisheries biologist 15 in the Water Quality Standards Section that is 16 working on I guess the technical steps that might precede a rule for bicarbonate. And I think Roger 17 mentioned bicarbonate. Bicarbonate is one of the 18 19 constituents, one of the elements of salinity in 20 water, and it happens to be the constituent that 21 had the greatest impact on aquatic life and fish. And so we do not have a standard for --22 23 these EC and SAR standards are aimed at protecting 24 the beneficial use of agriculture. We don't have 25 a standard for bicarbonate, but I can tell you

that the technical work that would lead any
 Department initiative on that effort is being
 conducted now up in the Water Quality Standards
 Section.

5 MS. SHROPSHIRE: And another question. 6 The choice to use alfalfa for the Powder instead 7 of something more conservative, or depending on 8 how you look at it, instead of beans, what's the 9 rationale for that?

10 MR. COMPTON: Mr. Chairman, Ms. Shropshire, again, we have much better information 11 12 now than we did back in 2002. Our approach with 13 respect to selection of target crop in 2002, if 14 you'll recall, was a survey, three surveys sent to 15 agricultural operators in the Tongue and Powder; 16 and it seemed to us that the predominant, overwhelmingly predominant crop on the Powder was 17 18 alfalfa.

We have much better information now. We have two sources of remote imagery generated GIS overlays. One is crop acreages, and that comes out of the US Department of Agricultural National Agricultural Statistics Survey Office; and the other one is a GIS coverage of irrigated acreage that comes out of the Farm Service Agencies GIS

work, and our Department of Revenue uses this
 overlay to assess lands, because of course
 irrigated lands are assessed at a higher rate than
 nonirrigated.

5 When you combine those two overlays, 6 what we found was a total of -- I don't remember 7 how many beans on the Powder. It was somewhere around a little less than 100 -- but the 8 9 intersection of the two overlays identified 13 10 acres of irrigated beans on the Powder, as opposed to 16,000, I think -- I'd have to look the number 11 12 up -- but 16,000 acres of alfalfa. So we didn't 13 figure that 13 acres of irrigated beans on the Powder was worthy of having driving that as a 14 15 target crop. Comparatively on the Tongue, there 16 is several hundred acres of irrigated beans. 17 MS. SHROPSHIRE: If there is a quidance on choosing the target, or you just went with your 18

19 best guess? Do you have to use the majority crop 20 or could you have gone with something different? 21 MR. COMPTON: Mr. Chairman, Ms. 22 Shropshire, it wouldn't be the majority crop 23 because of course there is still more alfalfa on 24 the Tongue than there are field beans and truck 25 farming going on; but because field beans and

1 fruits and truck farm vegetables all have that
2 same tolerance, and they're around 1,000. And
3 there was significant acreages, like I said,
4 several hundred acres of field beans irrigated on
5 the Tongue. Although it was only a fraction of
6 the amount of alfalfa there, we selected that as
7 our target crop.

8 So it wouldn't be the majority crop, it would be -- I quess a reasonable amount I quess of 9 10 that. And so I guess we'd say, a direct answer to your question, several hundred acres of irrigated 11 12 beans on the Tongue we felt was obviously 13 significant and worthy of protection; but we did not want to have the 13 acres of irrigated beans 14 15 on the Powder drive the target crop on the Powder. 16 We didn't think 13 acres was significant.

MS. SHROPSHIRE: If the price of beans quadrupled, and it was beneficial to plant beans versus alfalfa, I guess you could argue -- those sorts of considerations didn't go into your assessment, or did they? Could you argue that that's unlikely to happen? MR. COMPTON: Mr. Chairman, Ms.

24 Shropshire, we did look at the economic value per 25 acre of crops, and produced, multiplied it by our

GIS coverage acreages, and came up with total cash
 value of that crop; and certainly that is a
 player. You bet.

4 And I guess it might still take more than 13 acres of beans, even if their price went 5 6 up, to I guess in our mind have that drive all the 7 numbers on the Powder, remembering that the Powder exceeds, even the 2002 for alfalfa regularly. 8 And again, that's why in our watershed assessment that 9 10 drives the TMDL program, the Powder is classified 11 as marginally suitable of agriculture uses. And I 12 mentioned how good the Powder operators have had 13 to be to make good such good use of that marginal 14 water.

15 The last question I had MS. SHROPSHIRE: 16 was just with regards to the soil type and the Hanson diagram versus using the diagram that was 17 higher in clays, and if you were to get detailed 18 19 soil data from those areas. Have you looked at 20 the values -- I'm sure you have -- for what 21 percentage clays versus how that compares to the 22 Hanson diagram? And just if you could talk on 23 that.

24 MR. COMPTON: I guess having the Hanson 25 diagram be blind to soil type, it is pretty much just a starting point. And certainly there are soils out there that Mr. Muggli referred to, the problems that he's had in the one particular field or two. We did investigate. We commissioned Dr. Bauder again from MSU to look at what was pretty much a collapse of an alfalfa crop on portions of Mr. Muggli's field. Page 56

And Dr. Bauder took soil samples, took 8 9 them back to the lab, spent a fair amount of time 10 on it. His conclusions were that soil dispersion appeared to be a significant factor in the death 11 12 of an alfalfa crop in a field in the lower Tonque 13 River valley, Mr. Muggli's field. He concluded 14 that the event appeared to be a consequence of a 15 combination of natural soil physical and chemical 16 properties, and an extended period of rainfall, followed by elevated evaporative demand of a first 17 year alfalfa crop. This was a new planting. 18

He said that dispersion was specific to areas where soil was more than 30 percent smectite clay, had higher cation exchange capacity values. He concluded that the dispersion on Mr. Muggli's field was not necessarily a direct consequence of the quality of the water, but rather a consequence of wetting; and that all of the soils demonstrated a progressive decrease in hydraulic conductivity
 upon repeated wetting, alternating with periods of
 drainage.

So he didn't put the collapse of Mr. Muggli's crop really on a water quality basis. He put it on very sensitive soils, and the heavy rainfall, and intermittent drying and wetting. Again, it was not a water quality issue, according to Dr. Bauder.

10 MS. SHROPSHIRE: Did you make estimates 11 of what an appropriate SAR would be for those soil 12 types?

MR. COMPTON: An appropriate SAR for atighter soil?

MS. SHROPSHIRE: For the types of soilsthat you just described.

17 MR. COMPTON: You know, Mr. Chairman, Ms. Shropshire, I'd have to go back to Dr. 18 19 Suarez's conclusions, and that is for clay soil. 20 He doesn't say how much clay, he doesn't say how 21 much the smectitic clays that predominantly are 22 the most sensitive type of clay. These were 23 Tonque River soils. In fact, I think Mr. Muggli 24 mentioned that the soil samples came from some of 25 his fields.

Page 58 1 Dr. Suarez and his team found that when you go from an SAR of two to four, your 2 infiltration is reduced. I guess that's the most 3 specific information that we're aware of in the 4 literature that addresses sensitive soils. 5 6 MS. SHROPSHIRE: That's all I have. 7 Thank you. 8 CHAIRMAN RUSSELL: Other questions? 9 Joe. 10 MR. WHALEN: Thank you, Mr. Chairman. Ι 11 have one question for Mr. Compton and one question 12 for Ms. Chambers. 13 Mr. Compton, as we have seen, this 14 question really goes to the science and the 15 reporting that's been done that we've been charged 16 with reviewing. As we've seen with respect to the 17 Powder River and the Tongue River areas, the annual rainfall is typically between 13 and 15 18 19 inches. It can go less, it can go more, depending 20 upon the year. That would typically classify that 21 area as either semi-arid to arid. 22 One of the key factors that wasn't 23 really addressed too much specifically in the 24 report was the issue of evaporation and 25 evapotranspiration in plants, so I wanted to ask

you. How is evapotranspiration in plants related to electrical conductivity, and how does that impact the ratings the Department is recommending? And then two, how does the evaporation impact SAR, and how does that impact the rates the Department is recommending for SAR? Page 59

7 MR. COMPTON: Mr. Chairman, Mr. Whalen, I believe it was 30 inches we identified as the 8 agronomic need of plants and forage in the Powder 9 10 River Basin, the Tongue and Powder River Basins, that came from the literature. I can tell you 11 12 that evapotranspiration takes out moisture, but 13 leaves the salts in the soil. And in fact that's the reason, I believe -- if I can find -- I'll 14 just have to leave it at that. 15

16 The literature addresses that 17 phenomenon, the fact that evapotranspiration will 18 withdraw waters from the soils, but leave the 19 salts, bind it directly, and it works into these 20 numbers. That is all I can tell you.

21 CHAIRMAN RUSSELL: It wouldn't change
22 the SAR very much because it's just a cation
23 ratio. So if those ratios don't change, the SAR
24 doesn't change. I don't know.

25

MS. SHROPSHIRE: Unless it changes the

1 salinity.

2 CHAIRMAN RUSSELL: We're talking about3 the sodicity.

4 MS. SHROPSHIRE: I know, but the 5 salinity impacts the sodicity.

6 CHAIRMAN RUSSELL: The EC changes, but 7 the SAR shouldn't change much. Would you agree, 8 Bob?

9 MR. BUKANTIS: Right. Mr. Chairman, 10 members of the Board, for the record, my name is 11 Bob Bukantis, Water Quality Standards Section 12 Supervisor for the Department.

And two things. One thing is, Mr. 13 Whalen, Mr. Chairman, your question about 14 15 evaporation, that's basically taken into account. 16 That's implicit, if you would, in the numbers --Art had them up there -- on the total agronomic 17 need, because if you want to evaluate how much 18 19 water a crop is using, if a plant is just cranking 20 along full photosynthesis, getting all the water it needs, it's kind of equivalent to just regular 21 22 evaporation, because that water is just coming out through the leaves. 23

And so that number is basically included in the agronomic need, and so that agronomic need is basically determined by evapotranspiration, so
 that number is right in there.

In terms of the effect on the salinity 3 in the salt balance things, remember that the 4 overall salinity has to do with its effect on the 5 6 crop. The SAR is the measure of sodium balance 7 relative to other ions. That's more effect on the Where the two of them really come together 8 soil. is with this rainfall event, where basically 9 10 you're diluting the salt a lot faster in the SAR. The SAR is real slow to change in response to 11 12 evaporation or dilution because it is just the 13 relative amount of sodium relative to the other 14 compounds in there.

And I think where the evaporation comes in in terms of that soil impact, if you would, is how it affects that relationship that's explained in the Hanson diagram relative to how the SAR and the overall salinity interact. I hope that helps. MR. WHALEN: If I can just follow up,

21 Mr. Chairman.

22

CHAIRMAN RUSSELL: Sure.

23 MR. WHALEN: So higher evaporation rate 24 does not impact the tightening of soils; is that 25 what you're saying?

MR. BUKANTIS: Well, I guess from our 1 perspective, the basic principle of science called 2 Occam's Razor, and evaporation rate is kind of 3 something we can't control, and so it's given out 4 That's kind of already part of what the --5 there. 6 it's part of how we determine the agronomic need, 7 because if you moved the stuff to a more humid climate, if you would, your crop need would go way 8 9 down because that water wouldn't be coming off. 10 And these standards and these 11 relationships we apply using the local factors. 12 That's kind of implicit in there, and so that gets 13 into -- that will change from day to day, as all these factors can change from day to day, because 14 15 what we're trying to do is basically make 16 reasonable assumptions on a highly variable natural system, and that's one of those things 17 that kind of fluctuates in there, and is built 18 19 into -- I guess the way I look at it -- it's built 20 into that crop need number, because that's one of the driving factors, is how much water is coming 21 22 off. Because you're in a more humid area, you 23 don't get much evapotranspiration, and you don't 24 need to apply so much water. I don't know if 25 that --

Page 63 1 MR. WHALEN: That answers my question, 2 Bob. Thank you. 3 I have a question for Ms. Chambers, if I 4 may. 5 CHAIRMAN RUSSELL: Sure. 6 MR. WHALEN: Ms. Chambers, this is a 7 clarification question with respect to the measurement of EC and SAR coming off of activity 8 9 in Wyoming and then downstream a little bit. 10 We had talked about where these 11 measurements are taken. Can you outline for us --12 My understanding is there are some USGS stations 13 along the Tongue running from -- essentially to the Tongue River Reservoir, down to the mouth of 14 15 the Yellowstone. 16 In terms of our nondegradation standards, and where those are measured, are they 17 only measured at that station near the Tongue 18 19 River Reservoir, or are they measured at each USGS 20 station all the way down to the Yellowstone? And relative to that, is there some CBM activity 21 22 taking place that's discharging produced water into the watershed below that USGS station up near 23 24 the Tongue River Reservoir, to your knowledge? 25 MS. CHAMBERS: Mr. Chairman, Mr. Whalen,

I guess I'd like to address that in kind of two
 parts.

When we evaluate nondeq for purposes of 3 discharge permits, that's just to set the effluent 4 5 limit requirement on the end of pipe discharge. 6 So when we evaluate whether nondeg is being met, 7 it's an effluent condition based upon compliance with that permit limit, and based upon that 8 9 individual permittee. So if we protect the 10 discharge water at the end of pipe, then we're 11 assuming it's protecting water quality and the 12 ambient condition based upon the water quality 13 standards.

I don't evaluate and look a lot at 14 ambient conditions in stream based on whether or 15 16 not it meets water quality standards or ambient conditions. However, we do require a lot of 17 permittees to do a lot of ambient in-stream 18 19 monitoring upstream of their outfall and 20 downstream just to see if there's any cross-reference, based upon whether or not we set 21 22 the permit limits correctly.

In addition, we look at some studies on US gauging stations on ambient conditions, and we look at and renew those discharge permits when we evaluate whether or not there is a condition in
 the stream that needs to be met.

So specifically on where the US gauging 3 stations are, I'm not comfortable in saying 4 exactly where those are located and where we have 5 6 discharge permits or not. We only have one 7 discharging facility currently, that's on the Tongue, is Fidelity. We have two other discharge 8 9 permits that are authorized to discharge, but 10 currently do not. Pinnacle or Summit Gas has land application on off storage channel, and OW Ranch 11 12 has a newly issued permit that hasn't even 13 developed a treatment plant or produced wells in order to even have a discharge potential. 14

We've done a lot of look at what comes across the border from Wyoming into Montana with some of those gauging stations, just some sampling of the monitoring program, and Bob's shop has also proceeded with.

20 MR. WHALEN: Can the Department confirm 21 that the only discharging of produced water into 22 the Tongue River and Powder River watersheds are 23 coming from permitted outfalls, pipes? 24 MS. CHAMBERS: Mr. Chairman, Mr. Whalen,

I would say yes. We have a compliance inspector

25

1 that's currently in the Billings field office, has been on site in that area numerous times. There 2 is others from the Department that have taken a 3 lot of field note visits out, both in Wyoming and 4 5 Montana. We've got a lot of on the ground 6 agricultural type stakeholders that I'm sure we 7 would be notified if there was a discharge that we weren't aware of through the complaint process at 8 9 our Enforcement Division. 10 But I'm pretty comfortable that, yes, any produced water that has an outfall has an 11 12 authorized discharge permit. 13 MR. WHALEN: Thank you, Ms. Chambers. 14 Thank you, Mr. Chairman. 15 Do you have --CHAIRMAN RUSSELL: 16 MR. ANDERSON: Is Mr. Muggli still on the line? 17 18 MR. MUGGLI: Yes. I'm on the line. 19 MR. ANDERSON: This is Larry Anderson. 20 I'm interested in your response to the Department's explanation of the problems in yield 21 22 that you're having on your place. 23 MR. MUGGLI: Well, the problems we're 24 having are really sort of a combination of worry 25 about this discharge of this water. And I can

remember my grandfather and my dad having a conversation a long, long time ago, worried about salt loading increases from -- whatever the case -- from the Badlands south of Miles City wherever, the impacts into the river, and the effects on this montmorillonitic clay.

7 The Suarez report -- and my dad died 8 some 15 years ago, so that was long before the 9 worry about CBM came along.

10 The Suarez report was generated off of a soil test that was taken off of our place. 11 We 12 sacked up tons of soil to send to California, and it happened to be montmorillonitic clay 54 13 14 percent, so those results were based on that test. 15 We have fields that have as high as 90 percent 16 montmorillonitic clay, and so the problem is just absolutely exacerbated. 17

18 So here we have this big test plot, the whole entire farm with yields going awry. We have 19 20 my fish passage project, which came on line five years ago on the west side of the Tongue River, 21 22 and it's called the Muggli Fish Passage because I've put a lifetime of work in getting that 23 24 achieved, and there is yet to have a sauger and 25 walleye go up that. They have netted the fish out

of there a 24 hour period one day a week. There
 is not a sauger or walleye in there when there
 used to be.

It's because the hatch rate, when the EC 4 reaches 1,000, drops to four percent, and so those 5 6 fish are devoid of that part of the Tongue River 7 anymore, and it is a result of this increased 8 salting load. And I don't know what it is going to take to have the problem recognized, because 9 10 I'm telling you we're in a bad way on this mess, 11 and I wish there was some result.

12

CHAIRMAN RUSSELL: Thanks, Roger.

13 MR. ANDERSON: I just want to ask one of 14 the people from the Department. Is the position 15 of the Department that Mr. Muggli's farm's 16 problems are unique to Mr. Muggli's particular soil characteristics and particular circumstances? 17 18 MR. COMPTON: Mr. Chairman, Mr. 19 Anderson, I guess not necessarily unique to Mr. 20 Muggli's circumstances, but as he stated, the field that we investigated, that we had Dr. Bauder 21 22 investigate, that had partial collapse of a newly 23 planted alfalfa crop was very tight soil. Ι 24 believe -- I think Mr. Muggli is right. The clay 25 percentages that Dr. Bauder and his team reported

on were up to 62 percent, and that is tough ground
 to work.

Again, it was more of a -- Dr. Bauder 3 felt it was more of a water quantity and timing 4 issue than a water quality issue that resulted in 5 6 the breakdown of that very tight, that very clayey 7 soil, so I don't think it's probably specific to There is probably other fields out 8 Mr. Muqqli. And I think I mentioned at the get go that 9 there. 10 our standards are no doubt overly protective for less sensitive soils like loam and sandy soils. 11 We think they're right on for the more sensitive 12 13 soils out there, but it could be that some soils 14 out there that are so high in clay content, again, 15 that is less the water quality, and more the 16 timing and amount of water that's applied to them that has been causing problems. 17 18 MS. SHROPSHIRE: Can I follow up? 19 CHAIRMAN RUSSELL: Let's just take a 20 break, and as short as possible, and make sure we're back at it by eleven. 21 22 (Recess taken) 23 (Ms. Shropshire not present) 24 CHAIRMAN RUSSELL: We didn't make it by 25 two minutes, so that's not bad for this group.

I'm talking about that group back there, not us.
 Let's get rolling again. Any more questions
 that --

MR. LIVERS: Mr. Chairman, Ms.
Shropshire did have a follow-up question she was
about to ask prior to the break, so before we move
to anything procedural, we'll want to allow her to
follow up with substantive questions.

9 CHAIRMAN RUSSELL: Are there any others? 10 MR. MIRES: This document that we 11 received, does this pertain to this particular 12 topic? Is that the purpose of this?

13 CHAIRMAN RUSSELL: It is. It's part of 14 the record.

15 I have a question. This is MS. KAISER: 16 Heidi. I have a question for Art. I just wanted clarification on the lower standards for the 17 18 tributaries. You had stated I think -- unless I 19 misheard you -- that generally the water guality 20 in the tributaries is lower in SAR than the Tonque River in particular. And I quess the data that I 21 22 have looked at is contrary to that, at least at 23 the confluence of the Tongue, is generally higher 24 than the Tongue River. So I guess I know you --25 I also understand there is a component

1 of the frequency of irrigation and leaching on those tributaries. If you could just really 2 briefly clarify that for me. 3 Mr. Chairman, Ms. Kaiser, 4 MR. COMPTON: again, the clarification is the SAR levels on the 5 6 tribs relative to the standard? 7 MS. KATSER: Yes. Okay. Mr. Chairman, Ms. 8 MR. COMPTON: 9 Kaiser, the tributaries irrigation season SAR is 10 three, and the reason -- that comes directly from the literature, both Ayers and Westcot, and DeMooy 11 12 and Franklin state -- and both of those studies 13 have been quoted by a Montana water quality scientist, Dr. Schaeffer -- that at lower EC's, 14 EC's below about 700, the lowest you need to go to 15 16 be protective is an SAR of three. So that three came right out of the literature. 17 18 Ordinarily at an EC of 500, the SAR 19 would be way, way down there, maybe even one or 20 But again, the literature says you don't lower. need to go lower than a three at lower EC's. 21 So Ms. Kaiser, certainly that is likely 22 lower than the ambient conditions on the 23 24 tributaries, just as there is no doubt that an EC 25 of 500, that standard is lower than ambient on the

1 tributaries a lot of the time. But remember, a water quality standard is largely independent of 2 3 the ambient condition. Rather the water quality standard is that level that the science argues is 4 protective of the beneficial use. 5 6 When the natural condition -- I don't 7 want to confuse ambient and natural, or Claudia will get mad at me -- but whenever the natural 8 condition is higher than the standard, it's the 9 10 natural condition that drives permitting, and that's because of Section 306 of the Montana Water 11 12 Quality Act that says that a discharger need not treat to a conditional purer than natural. 13 14 So I know the 500 and perhaps the three 15 SAR may seem kind of academic on the tributaries, 16 but in fact that is the level that would fully protect the beneficial use. I hope that answers 17 your question. 18 Oh, yes. 19 MS. KAISER: That was very 20 Thank you, Art. helpful. 21 (Ms. Shropshire present) 22 MS. SHROPSHIRE: Mr. Chairman, I want to 23 follow up on a couple of points. The one you just 24 made about natural versus ambient, is that -- is 25 natural -- would that be the same as baseline, the

1 original I guess pre-coal bed methane 2 concentration, is that what natural would be? I 3 guess is there data that says what those values 4 were pre-coal bed methane development?

MR. COMPTON: 5 Mr. Chairman, Ms. 6 Shropshire, yes, I guess we would call natural the 7 water quality that has not been affected by any anthropogenic factor, any human cause, I think we 8 9 call it natural. Whether or not there are numbers 10 out there that reflect natural, we certainly have numbers out there, water quality data, historical 11 12 data, that predates CBM development. So I think 13 it's fairly straight forward to come up with a water quality suite that is preindustrial 14 15 discharge, certainly pre-CBM discharges.

16 Whether there are other issues, any other human caused factors, whether it would be 17 from increased nitrates from soil disturbance, 18 19 salinity from agricultural return flows, and what 20 have you, is a fairly complex question, and some of those complexities have been drafted by our 21 22 Tongue River model which we've done in conjunction with EPA and with Tetratech, and has gone just 23 24 about as far as we can go to establishing what 25 true baseline really is, and what the natural

1 condition is.

2 MS. SHROPSHIRE: I wanted to follow up 3 from a conversation that we had right before the break, if that's all right. It goes back to Mr. 4 5 Muggli's property, and it sounded like Mr. 6 Bauder's conclusion that -- I don't know if it was 7 a conclusion -- but that potentially the soil conditions and rain were contributing factors to 8 9 the inability to grow alfalfa there. And it seems 10 to me that those are constants. Do you know if he 11 addressed if a lower SAR water were applied, if it 12 would have improved the ability to grow alfalfa? 13 MR. COMPTON: Mr. Chairman, Ms. 14 Shropshire, I think he implied through his conclusions that because he did not implicate 15 16 water quality in the collapse of that crop, that was in fact other factors. I think in his study, 17 he used the USGS real time stream gauge data to 18 19 estimate what the SAR of the water that was 20 applied -- and Mr. Muggli, you can correct me if I'm wrong -- but if I recall, it was around 1.75 21 22 or something, in other words, well within the standard for the time that irrigation was 23 24 conducted.

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MS. SHROPSHIRE: And even though it was

1 within the standard, I was curious if it could have still had an impact, i.e., the standard maybe 2 was too high. Did he look at that? 3 Mr. Chairman, Ms. 4 MR. COMPTON: 5 Shropshire, I'd say that certainly every increment 6 of SAR over a very neglible amount would have an 7 adverse effect under those conditions. Aqain, very tight soils, very high clay content, heavy 8 irrigation followed by heavy rainfall. Certainly 9 10 I would say the lower SAR is the better, but I'm just not sure, based on Dr. Bauder's conclusions, 11 12 that -- I think what he is suggesting is you'd 13 have to crank the number much lower than a three 14 to have any practical effect in that situation. 15 CHAIRMAN RUSSELL: Robin, if you look at 16 that chart, it doesn't matter. If you have any SAR, if you have an event where you put something 17 on there that has no EC, you're going to have 18 19 impact. That's what the chart demonstrates. So 20 you'd have to have an SAR of zero before you have no impact. 21 22 MS. SHROPSHIRE: Okay. To follow up on 23 that point, it seemed that you looked at crop use 24 in terms of developing the standards, but I wasn't 25 clear in terms of the SAR and soil properties, how

much the average soil properties in the area
 impacted the standards that were developed.

MR. COMPTON: Mr. Chairman, Ms. 3 Shropshire, we really didn't have any literature 4 5 that would give us anything other than this 6 information here until these studies came out. 7 These are really the first ones that linked a --Actually it is not that one. 8 It's these -- that 9 linked a number to a soil. And again, we know 10 that this was based on Tongue River soils. Ι think Mr. Muggli stated that some of the samples 11 came from his fields, although they may not have 12 I know there was 13 been the most sensitive soils. 14 an attempt to get kind of a cross section.

I think bottom line is there may be some soils out there that are so tight and so high in smectitic clay content that can be factors other than SAR that can contribute to dispersion and lack of infiltration, and I think that's what we saw on Mr. Muggli's field.

MS. SHROPSHIRE: Maybe this is a question for Mr. Muggli, but has that field been able to sustain vegetation before? MR. MUGGLI: This is Roger Muggli. Yes, we did sustain a reasonably good crop before this

1 event.

The thing is that one has to take into 2 3 account that now that we have subjected the entire 1,700 or 1,600 acres of our irrigated farm to this 4 ten year test or twelve year test, we're seeing 5 6 these results, and so we can split hairs on this 7 part of the soil and this part of the farm, the smectitic montmorillonitic clay, but the overall 8 production that's in the negative to that degree. 9 10 And I'm telling you this isn't perceived, this 11 isn't made up. This is looking our crop records, 12 and we keep all these crop records, and they're 13 relative to our feed production processing plant. 14 That's why this stuff is all so important. 15 And now to replace that hay it's a 16 \$200,000 a year event, and I am tired to death of hearing this. We're splitting hairs on whether 17 it's this amount or montmorillonitic clay or that. 18 19 It is just an absolute disaster, and it's 20 something I am desperately trying to get past on

this place, and I don't know how to do it. The standards are just too high to accommodate this type of soil when we once had this over seven ton average, and we're scarcely over four now, and I don't know what to do. CHAIRMAN RUSSELL: Any further
 questions?

3 MR. MIRES: In regards to this sheet that we received this morning from the Tongue 4 5 River Water Users Association -- and I suppose 6 this is to Art on this one -- they do raise an 7 interesting question. I'm curious as to what 8 response has been provided back to the association 9 as to --

We've had a lot of water in the last couple years, and is there a proposal that the Department has, or how are they answering the question? What's the Department's proposal when we have drought years then, which quite frequently happen in this part of the country? Have you responded to their letter yet?

17 MR. COMPTON: Mr. Chairman, Mr. Mires, 18 this issue that the letter refers to has become an 19 annual event for the last four or five years. And 20 the problem has been late March/early April 21 pre-runoff elevated EC's. The first time it 22 happened about five years ago, we went to the 23 Wyoming DEQ and asked if there was any water 24 management incidents that they were aware of; and 25 I think the first year or two they might say,

"Well, we had one pond blow out that wasn't reported to DEQ," something like that, but it wasn't a big enough event to cause the three to four weeks of elevated EC's before this runoff started.

As recently as about maybe three or four years ago, their conclusion was that these elevated EC's pre-runoff were a mobilization of salts from low elevation runoff -- and we do have salinity soils out there in the upper Tongue in Wyoming -- and that's kind of what we chalked it up to.

13 The Department started putting in some 14 pretty serious investment in this issue last year 15 when we did our own water balance, our own 16 salinity balance, based on USGS data to try and 17 get at what was behind this creep that we were 18 seeing in pre-runoff EC's in the Tongue.

19 Our conclusions, in looking at the 20 amount of water and the water quality of that 21 water coming in in the upper Tongue, was that our 22 permitted discharges accounted for about 2 to 3 23 percent of the salt load at the state line 24 station.

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You're aware of the Supreme Court

decision that all discharges in Montana have to be treated. I believe Fidelity will have their last outfalls treated by this fall, and really that number should go from 2 to 3 percent to negligible, I would think. Page 80

6 The other major source that we looked at 7 was Prairie Dog Creek, which is a tributary of the Tonque in Wyoming, that has extensive CBM 8 9 development on it, I think 1,200, 1,300 wells, and 10 several hundred on-channel ponds; and we calculated, based on the flow and quality of 11 12 Prairie Dog Creek, that it contributed between 10 13 and 15 percent of the salt load at state line 14 depending on the time of year.

15 So I'd say the answer is there is an 16 anthropogenic or human caused element in this spring time creep we see. I suppose when we have 17 water quality standards in effect, Wyoming's 18 19 responsibility to us to meet the standard at the 20 border, and they're doing that, and this creep is 21 not such that it's exceeding the standard at the 22 border, but nevertheless having this EC level creep up from mid March to mid April, 100 EC units 23 24 a year -- which is about what it's been doing the three or four, five years -- is troublesome. 25

1 And I think Mr. Whalen asked the 2 question of Jenny, "Do you know that you've got all of your discharges monitored, do you keep 3 track of them, do you know where they all are?," 4 and Jenny's answer was right on. Yes, we do as 5 6 far as the permitted outfalls and what have you. 7 We know where those are. I believe industry reporting on that and our follow up field 8 9 inspections are accurate.

10 The problem we're going to see -- and 11 Prairie Dog Creek is a perfect example -- some of 12 the water that's managed through the National 13 Pollutant Discharge Elimination System in Wyoming. We have MPDES permits, Montana Pollution Discharge 14 15 Elimination System, and Wyoming has WPDES permits, 16 Wyoming Discharge Pollution Elimination System. Water that's managed through that federally 17 delegated system in Wyoming gets as far as their 18 19 ponds, and then it starts affecting us as a 20 nonpoint source.

We think that's one of the things
implicated in the spring time creep that Mr.
Hayes' letter is referring to. That is a tough
problem to get around. Nobody regulates nonpoint
sources, the water that moves through alluvial

soils into the Tongue and winds up entering
 Montana, and winds up affecting the state line
 station.

4 All those ponds and Prairie Dog Creek, 5 the couple hundred on-channel ponds, are 6 prohibited from discharging overtopping unless 7 there is a precipitation event. Some of them can't overtop unless it's a five to ten year 8 event, a pretty significant rain storm; but others 9 10 can overtop anytime there is any rain. But again, you have to ask yourself if we can calculate from 11 12 a mass balance that Prairie Dog Creek contributes 13 10 to 15 percent surface flow, I guess we don't know where else to go with this spring time EC 14 There is other influences, and it could be 15 creep. subsurface flow. 16

17 Like I said, this is the type of 18 nonpoint flow that the literature, recent 19 literature, suggests you get a tributary that's 20 full of CBM wells and CBM ponds, and I don't think 21 we do have an answer to that.

We have really a good relationship with the Wyoming DEQ. We have a monthly conference call with them where we looked at their current batch of permits, and I think Director Corra

1 mentioned to Director Opper yesterday, when they were at the same meeting, that he didn't think 2 there had been a CBM well drilled in the Powder 3 River Basin in two years, and I can tell you that 4 5 the monthly permits are all renewals. There is 6 not much, if any, new water being produced in 7 Wyoming, but there is a lot of water in ponds, a lot of CBM produced water in ponds. 8 There is 9 no doubt some of the effects is the nonpoint 10 source.

11 What we do about it is I think we 12 continue to rely upon our relationship with the 13 Wyoming DEQ to make sure that their water 14 management strategies are as tight as they can be, 15 but with respect to the stuff that leaks through 16 the sieve, I'm not sure. I don't think we have an 17 answer for that.

18 MR. MIRES: Thank you.

19 CHAIRMAN RUSSELL: Any other questions?

20 (No response)

21 CHAIRMAN RUSSELL: Tom.

MR. LIVERS: Mr. Chairman, members of the Board, Tom Livers with the Department. Just after hearing the discussion, I thought it might be useful to the Board to take a minute and outline the options you have in moving forward on
 this issue.

The first thing is this is something we 3 do anytime there is a potential decision point, 4 5 even if our recommendation to you might be no 6 action or not initiating rulemaking. We don't 7 want to presume that you will agree with that, and we don't want to preclude you from acting. 8 If we were to notice something like this as a briefing 9 10 item, it would essentially run afoul of the public notice requirements if you were then to take 11 12 action, so we try to keep your options open and 13 notice it as an action item. But we've done that before on similar issues when we don't recommend, 14 15 so it's basically, we don't want to just presume 16 that you're going to agree with us.

I think in addition to that, this issue 17 probably merits some kind of formal action by the 18 I think it was -- when we opened the 19 Board. 20 triennial review a year ago, the standards were a 21 specific point of emphasis. We've certainly done 22 what we think is a rigorous analysis here to look 23 at this issue. We've presented that information 24 to your packet, we've summarized it this morning. 25 I think we've had a good vigorous discussion this

morning and good questions from the Board. So we
 do appreciate that.

Given that, it seemed to simply take no 3 action in my mind seems a little maybe ambiguous 4 or not reflective of the kind of discussion we've 5 6 had here. Certainly our recommendation is that 7 you reaffirm the standards. We think these standards are necessary for protecting beneficial 8 uses on these three stream categories, on the 9 10 Tongue, the Powder, and the tributaries.

11 So it would be the Department's 12 recommendation that the Board reaffirm that, finding the standards necessary. Obviously the 13 14 Board can disagree, the Board can choose to take no action, or the Board could choose to initiate 15 16 rulemaking and revisit the standards. We're not recommending that. I don't think anyone here has 17 recommended that this morning. 18

19 What I wanted to outline is why we
20 noticed it the way we did, to give you a sense of
21 what your options are on this issue.

22 CHAIRMAN RUSSELL: Thanks, Tom. For 23 purposes of keeping this moving, in the past we've 24 done no action by just moving to the next agenda 25 item, and I don't think that -- if that's as the

Department recommends, I don't think that that 1 2 puts enough meat on where we need to be right now. So I'm going to ask for a motion 3 specifically based on the following. 4 The 5 information presented today makes it clear to the 6 Board that the EC and SAR standards for the 7 Tongue, the Powder, and the tributaries are necessary to protect water quality and soils in 8 9 the basin; and with that in mind, that we would 10 not take action to initiate rulemaking at this 11 time. 12 MS. SHROPSHIRE: Can you repeat that? 13 CHAIRMAN RUSSELL: I'm not sure I can. 14 But based on the information presented today, that the Board finds that the current standards in the 15 16 rule for EC and SAR for the Tongue, the Powder, and its tributaries are necessary to protect water 17 quality in the basin and soils; and based on that, 18 19 that we would not initiate rulemaking at this time 20 to change those standards. 21 Mr. Chairman, I support the MR. WHALEN: 22 statement that you've made. My concern was in 23 making a negative motion parliamentarily. 24 CHAIRMAN RUSSELL: Before we do, we 25 probably ought to get it out there for discussion.

1 So for discussion purposes, would you move that? MR. WHALEN: I would if we could maybe 2 remove the word "not," if we could insert the 3 words "affirming the position of the Department's 4 5 recommendation." 6 CHAIRMAN RUSSELL: That based on the 7 information that we've received today, that the EC 8 and SAR standards are necessary, the current ones 9 are necessary to protect water quality in the 10 basing and soils. So the motion would 11 MR. WHALEN: 12 essentially be that statement? 13 CHAIRMAN RUSSELL: And that we would not 14 take up rulemaking at this time. That's the only 15 negative, and I don't know how we could make a 16 positive statement that we weren't going to do it. 17 MR. LIVERS: Mr. Chairman, I wonder if that last piece is implicit in the reaffirmation. 18 19 It might be. 20 CHAIRMAN RUSSELL: If it is then, I would just strike, ask to strike, that based on 21 22 the information that the Board has received today, that the current standards in rule for EC and SAR 23 24 are necessary for water quality and soil 25 protection.

1 MR. WHALEN: So moved. CHAIRMAN RUSSELL: 2 It's been moved by Joe. 3 Is there a second? MR. ANDERSON: I'll second. 4 5 CHAIRMAN RUSSELL: Seconded by Larry. 6 Further discussion? 7 (No response) 8 CHAIRMAN RUSSELL: Hearing none, all 9 those in favor, signify by saying aye. 10 (Response) 11 CHAIRMAN RUSSELL: Opposed. 12 (No response) 13 CHAIRMAN RUSSELL: Motion carries 14 unanimously. I really appreciate the Department's 15 work on this. I lived through the whole thing, 16 and I appreciate the new information that you brought, and I'm very grateful that it affirms 17 really what we did nine years ago, nine and six 18 19 years ago. So thank you. 20 And Roger, I appreciate your comments 21 about this, and I hope you can keep working with 22 us, that you're not throwing arrows at us because 23 the quy on the board has got the sling. That's an 24 inside joke. 25 Let's move on to the next item.

Page 89 1 MR. MUGGLI: Thank you very much. MR. LIVERS: Mr. Chairman, Tom Livers. 2 I quess I would just like to pile on or add to 3 your statement. I'm taking this very seriously. 4 5 I think those of you who have been here for awhile 6 remember Art Compton from when he was our Planning 7 Division Administrator, and we're glad that when he chose to retire, he was still willing to make 8 himself available for what turned out to be a 9 10 really key project for us. So much appreciated. 11 CHAIRMAN RUSSELL: It's always nice to 12 We have history. see Art. 13 All right. Let's move on then. The 14 next item on the agenda is III(B)(1), executive 15 summary for rulemaking, and listed affected rules are ARM Title 17, Chapter 30, Subchapter 12, Water 16 17 Quality Act. 18 MR. LIVERS: Mr. Chairman, these next 19 few probably won't be the quick slam dunk that the 20 last one was. Request for initiation of rulemaking, and Jenny Chambers is on deck for 21 22 this. 23 MS. CHAMBERS: Good afternoon, members 24 of the Board. My name is Jenny Chambers, Chief of 25 the Water Protection Bureau. Today I'm before

1 you. The Department requests the Board concur with our recommendation to initiate rulemaking to 2 amend the rules establishing effluent limitations, 3 standards of performance, and treatment 4 requirements for the Montana Discharge Elimination 5 6 System Permit, also referred to as MPDES permit 7 program, which are located in the Administrative Rules of Montana, Title 17, Chapter 30, Subchapter 8 9 12.

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10 The Department is requesting these rules amendments in order to maintain compliance with 11 12 the federal regulations governing states with 13 delegated authority to implement the Federal Clean 14 Water Act permitting program. Federal 15 requirements are listed in 40 CFR 125.23, that 16 requires delegated states to adopt the technology based effluent limits and standards found in 17 subparts A, B, D, H, I, and N, of the 40 CFR Part 18 19 125; also 40 CFR Part 133; also CFR 40 Part 129; 20 and 40 CFR Chapter "I" and Subchapter "N".

The Board's existing rules that are set forth in the ARM Title 17, Chapter 30, Subchapter 12, incorporate by reference the technology based effluent limits and standards of performance that were promulgated by EPA prior to 1989. So in

summary of the rules that are required, we propose
 the revisions necessary to adopt effluent
 limitations and standards promulgated by EPA after
 1989.

5 Part of the updates will also eliminate 6 existing incorporation by reference prior to 1989, 7 and adopt some of those texts of those federal regulations into the state rules. We've evaluated 8 9 that working with our permittees, and also with my 10 staff within the Permitting Section, that if we take the text from the federal rules, and plug 11 12 those in word by word, versus incorporating by 13 reference, that it's going to provide an easier 14 mechanism to figure out what our approach is and 15 what we're trying to evaluate when we're making a 16 permit decision, and so having cross-references 17 back to the federal regulations and so forth.

We're going to also add a new section of rule to adopt the text of a recently promulgated federal regulation that imposes treatment requirements on cooling water intake structures. Those are your rule packet under New Rule I and New Rule II starting on Page 11. It's kind of a change of position when

25 you look at Water Protection Bureau and wastewater

discharge permits, that's a discharge of 1 2 wastewater into a receiving water or surface water This is a cooling water intake structure 3 source. for power generating facilities, and will regulate 4 5 how much -- not how much water they can pull in, 6 but how they pull that water intake from the 7 intake structures. It evaluates minimum control measures for impingement and entrapment of fish, 8 and certain screen levels based upon the size of 9 10 cooling water intake structure that they are 11 proposing.

12 Another revision is to eliminate some of 13 the federal requirements that are not applicable 14 to Montana Pollutant Discharge Elimination System Programs. For instance, we had some old 15 16 references in there prior to 1989 for federal requirements for ocean discharges. We don't have 17 a lot of ocean discharges in Montana, so that's 18 19 not required to be in our rule package.

Also there was language in there for pretreatment program requirements. Montana currently does not have delegated authority to implement a pretreatment program. That's still administered by EPA at the federal level. Another change that we have is just to provide an ease in federal regulations as far as delegated state. In some of the areas there are still some incorporation by references if the rule was too cumbersome to add in, but we do have a lot more text. That's why the rule package is fairly large to roll that incorporation by reference into actual text. Page 93

8 Another change is just to clarify 9 existing language and clarify some of our 10 definitions, just to make sure that we're 11 providing a service to our permittees and our 12 permit writers to know exactly what we're trying 13 to follow.

In an effort to bring the MPDES rules up to date, this is the first phase of a possible five other phase process, so I will be coming in front of you in the next couple of years to incorporate the other subchapter rules to bring them up to current status.

This package has been reviewed by the Water Quality Advisory Council and other stakeholders, but since most of the federal requirements that were incorporated into the state rules in 1989 have not been revised by EPA since original promulgation, these revisions don't impose additional requirements on the Montana
 MPDES permit holders. The only new rule is the
 Clean Water Intake Structure requirement.

This MAR notice has been provided and contained proposed revisions, and the Department requests the Board concur with this recommendation to initiate rulemaking, and to appoint a Hearings Officer for the public hearing. I'd be happy to answer any questions.

10 CHAIRMAN RUSSELL: Questions for Jenny? 11 MS. SHROPSHIRE: I do have a question. 12 I was trying to find this in here. On this 13 cooling water intake structures, I thought you said there wasn't a volume portion of that. 14 Т 15 just wasn't sure for new facilities or old facilities both, if there is a threshold above 16 which their regulation applies. 17

18 MS. CHAMBERS: Mr. Chairman, Ms. 19 Shropshire, to answer your question in regards to 20 the cooling water intake structure, I indicated there wasn't a volume of what we would regulate. 21 22 We're not looking at quantity issues on how much 23 water they're pulling in. It's based upon the 24 design of the facility that's looking at using the 25 cooling water intake structure.

1 So in the New Rule I and New Rule II there is requirements for both a new source that's 2 being proposed, an existing, and then based upon 3 the size of facility, as far as percent of water 4 they intend to pull from that structure. But not 5 6 -- we don't -- we're not doing a water rights 7 requirement as far as you can only pull "X" amount of quantity in, but it depends on how much water 8 they choose to use for that generating facility 9 10 what the criteria would be within that new rule. 11 MS. SHROPSHIRE: My understanding -- and 12 maybe this is old -- but was above 50 million 13 gallons per day, the regulation applied to existing facilities, i.e., they would be subject 14 15 to retrofits versus less than 50 million gallons 16 per day, but maybe it's become -- I was thinking that the more stringent, like ten million gallons 17 per day applied or didn't apply. In terms of how 18 19 the facilities are designed, I wasn't sure what 20 that threshold was.

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MS. CHAMBERS: Mr. Chairman, if you look through Page 13 on New Rule II, basically there is certain requirements in there. If you look under like Subpart 7, New Rule II, Subpart 7, "The owner or operator of a new facility will withdraw equal to or greater than ten million gallons a day shall comply with those requirements," but that's just one. On Page 15 under Subpart 8, that's a new facility that's equal to, greater than, two million gallons per day and less than ten million gallons per day.

7 So based upon the design and what type 8 of facility we're talking about, either existing 9 or new, there is these different subcomponents in 10 there that states what requirements we would 11 follow based upon that type of facility.

MS. SHROPSHIRE: This is maybe a question for John North, and just full disclosure. I work for a company that manages power plants. I don't know for this rulemaking if I would need to recuse myself.

17 CHAIRMAN RUSSELL: You know, you need to 18 -- actually you probably need to ask Katherine 19 that, but it's your decision if you need to recuse 20 yourself. But I think you should ask Katherine 21 that.

MS. SHROPSHIRE: I'm sorry to do thisnow. I apologize.

MS. CHAMBERS: Which power plant?MS. SHROPSHIRE: Nothing in Montana.

Page 97 1 MS. ORR: So do you represent the interests of any company that would be subject to 2 3 these rules? 4 MS. SHROPSHIRE: Yes, but not in 5 Montana. 6 MS. ORR: But those --7 MS. SHROPSHIRE: So let me just say they could move to Montana theoretically, but there is 8 9 nothing in Montana now. 10 MS. ORR: How speculative is it that they would move to Montana? 11 12 MS. SHROPSHIRE: There would be a 13 definite possibility that that could happen. MS. ORR: A definite possibility? 14 15 MS. SHROPSHIRE: I don't know that they 16 have -- I am aware that they don't have any plans to do that, but there is nothing --17 18 MS. ORR: Then would you be in a 19 position of interpreting these rules regarding the 20 client or the companies that you advise? 21 MS. CHAMBERS: Mr. Chairman, I'd just 22 like to clarify maybe that these are federal 23 rules, that we just incorporated the text into the 24 Montana rules. So whether they're in Montana or 25 located in other states, they would be subject to

Page 98 1 these federal rules under the Clean Water Act. So I don't know that helps weigh in the decision at 2 3 all. 4 MS. ORR: It might be good to recuse 5 yourself. 6 MS. SHROPSHIRE: Okay. I quess I would 7 -- maybe upon further discussion I think I'll choose to do that, but we should talk about it 8 9 I'm sorry to bring this up now. more. Ι 10 apologize. 11 I'm glad you did. CHAIRMAN RUSSELL: Ιt 12 might have kept our process from moving forward. 13 So I appreciate you doing that. 14 Jenny, I have a question. I don't have 15 any conflicts. I'm just conflicted. When you 16 talk about technology based treatment requirements, is that imposed throughout the MPDES 17 18 process? 19 MS. CHAMBERS: Mr. Chairman, members of 20 the Board, yes, it is. There is two requirements 21 we have to look at when we evaluate an MPDES 22 permit. The first is technology based effluent 23 limits, and then we have to apply water quality 24 based effluent limits. So for every discharger, 25 there is a certain set of categories for

technology based effluent limits, mainly POTWs have their own separate requirements, but that each industry have federal effluent limit guidelines, federal ELGs that are promulgated that we have to apply those as well. Page 99

6 In the absence of federal ELGs for 7 industrial type dischargers, we have to do --8 effluent limit guidelines. Federal effluent limit 9 guidelines, or ELG. We have to look at BPJ or 10 best professional judgment in order to establish a 11 technology based effluent limit. So that's the 12 first step in every process.

13 CHAIRMAN RUSSELL: I've got several 14 treatment plants up in Flathead County, one in 15 Kalispell that if they needed to go through the 16 MPDES process, has a very high technology applied to wastewater, even though they may have some 17 other problems. Then I have another one up in the 18 19 north valley that is certainly much more primitive 20 in its treatment technology. I'm not saying it's not adequate, but it is not as high a treatment 21 22 technology as one in the same basin. And then 23 there is another one up there that's even a 24 different technology. You're getting my point. 25 So when they go in, are they going to be 1 applied to the highest treatment technology that's 2 available, or what's -- this kind of brings back some BACT stuff that I'm not sure I want to get 3 But if they use extended aeration, is it 4 into. going to be the technology based on what the plant 5 6 is doing now? Let's say it's an SBR or something 7 like that, and there is a new add-on for the 8 sequencing batch reactor. It's a sewage treatment 9 plant, a type of technology.

10 Let's say that they can put that on 11 there and be better. Are you going to require 12 that?

MS. CHAMBERS: Mr. Chairman, members of the Board, no, I'm not going to require that based upon each level operation for each municipal in the whole state. What we look at is not the treatment or their design of what they're using. It's a minimal level of treatment necessary based upon a condition of the effluent.

20 So EPA under the federal regulations 21 states that for these conventional pollutants --22 BOD, pH, TSS, some of those conventional 23 parameters -- all municipal dischargers should 24 meet this effluent limit at the end of pipe. 25 How they get there to meet that minimum

level of treatment is up to them on which type of technology they'd like to employ; but if one is doing better than the other, we don't say, "This is the best available control technology to get to these levels." This is just a minimal level of treatment that's necessary to -- that they have to comply with.

8 The reason why someone within the 9 Flathead area's discharge better than the others 10 is sometimes also due to water quality standards, 11 other requirements that are imposed on a 12 case-by-case basis, based upon those dischargers 13 and where they discharge as far as the receiving 14 water.

15 I hope that answered your question. 16 CHAIRMAN RUSSELL: Yes, it does. I'm really intrigued by the concept of best 17 professional judgment, because I think I do that 18 19 all the time. I get the point. I think I do that 20 all the time. How defensible is that? Is it a very defensible term? 21 22 MS. CHAMBERS: Mr. Chairman, I would say 23 yes, it is. And it's not needed in every 24 circumstance. It's only needed when EPA has 25 promulgated a federal effluent limit level of

1 technology. There is two industries in Montana 2 that we currently don't have federal ELGs for. 3 One of course is coal bed methane, and the other 4 is water treatment plant discharges, back wash 5 water filtration discharges.

6 There is a large guidance document and 7 regulations that say what you would need to look at in order to establish PBJ, and that you look at 8 economic treatment, you look at research that's 9 10 out there based upon the minimal level of treatment or best available -- based upon either a 11 12 new source or existing source, existing 13 dischargers.

14 We looked, at least for the coal bed 15 permits, extensive review of Wyoming dischargers, 16 Montana's dischargers, some in Colorado, on what treatment they were using, what alternatives were 17 possibly out there, the cost associated with 18 19 having them upgrade their treatment to a certain 20 level, how much volume they could run through those processes; and then we had an economist look 21 22 at whether our financials were correct based upon 23 whether or not it was economically achievable. 24 So no, it's not something we want to do 25 in every situation as far as using best

Page 103 1 professional judgment, but in those actions EPA 2 hasn't promulgated federal ELG, and we will take 3 that effort on. 4 CHAIRMAN RUSSELL: Doesn't that sound a 5 little like top down BACT? Just a little? 6 MR. LIVERS: No, Mr. Chairman. 7 MS. SHROPSHIRE: Just regular old BACT, 8 not top down. 9 CHAIRMAN RUSSELL: Jenny, I appreciate 10 your comments. Any other comments? 11 Hearing none, I would entertain a motion 12 to -- Katherine, you're probably ready, willing, 13 and able to do this one. 14 MS. ORR: I am. 15 CHAIRMAN RUSSELL: We have to take 16 public comment. Thanks, Larry. Is there anyone out in the public that would like to speak to this 17 18 matter before the Board takes action? 19 (No response) 20 Anyone like to speak CHAIRMAN RUSSELL: 21 to this matter before the Board takes action? 22 (No response) 23 CHAIRMAN RUSSELL: Katherine, you're available? 24 25 MS. ORR: I am.

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1	CHAIRMAN RUSSELL: With that, I would	Tage To4
2	entertain a motion to accept the Department's	
3	recommendation, and move forward with rulemaking	
4	on this matter.	
5	MR. MIRES: I would so move.	
6	CHAIRMAN RUSSELL: And appoint a Hearing	
7	Examiner, and publish the notice, and all that	
8	stuff.	
9	MR. MIRES: So moved.	
10	CHAIRMAN RUSSELL: It's been moved by	
11	Larry. Second.	
12	MR. ANDERSON: I'll second.	
13	CHAIRMAN RUSSELL: It's seconded by	
14	Larry. Further discussion?	
15	(No response)	
16	CHAIRMAN RUSSELL: Hearing none, all	
17	those in favor, signify by saying aye.	
18	(Response)	
19	CHAIRMAN RUSSELL: Opposed.	
20	(No response)	
21	CHAIRMAN RUSSELL: Motion carries	
22	unanimously.	
23	Thank you. The next item on the agenda	
24	is initiation of rulemaking regarding ARM	
25	17.8.801, 804, 818, 820, 822, 825, 901, 904, and	

Γ

1 1007.

2 MR. LIVERS: Thank you, Mr. Chairman. 3 This is air quality rulemaking, and Deb Wolfe will 4 be presenting our request for initiation.

5 MS. WOLFE: Good morning, Mr. Chairman, 6 members of the Board. For the record, my name is 7 Debra Wolfe, and I'm here to represent the 8 Department regarding the amendment of air quality 9 rules.

10 What we're requesting the Board to do 11 today is initiate rulemaking that would amend air 12 quality rules in Title 17, Chapter 8, Subchapters 13 8, 9, and 10, as our chair pointed out, to update 14 requirements for PM2.5 for sources that are 15 subject to major source permitting rules. These 16 are big sources.

PM2.5 is a criteria pollutant for which 17 EPA has established an ambient standard pursuant 18 19 to the Clean Air Act. So in this case, the 20 National Ambient Air Quality Standard, or NAAQS, limits were revised in 2006, reducing the allowed 21 concentrations in the ambient air to 35 micrograms 22 23 per cubic meter measured as a 24 hour average and 24 calculated as the 98 percentile value for three 25 years. In other words, the 24 hour standard is

considered to be met if the 98 percentile 24 hour
 PM2.5 concentrations in a year averaged over three
 years is less than or equal to 35 micrograms.

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The point is it changed, and the 4 5 inclusion of PM2.5 in major source permitting 6 actions supports the assumptions that NAAQS are 7 maintained because Montana's rules require a source to demonstrate that emissions from a 8 9 proposed construction or modification will not 10 cause or contribute to air quality in excess of any maximum allowable increase or maximum 11 12 allowable concentration for any NAAOS pollutant, 13 and these amendments would require those demonstrations. 14

15 So what we're asking for today is for two different federal rulemakings that would 16 update PSD and New Source Review for Montana's 17 major source permitting programs. The Department 18 requests the Board would initiate rulemaking 19 20 pursuant to the materials that are in your packet, 21 publish notice of the proposed rule amendments, and appoint a Hearing Officer to consider the 22 amendments to the above stated rules. 23 24 CHAIRMAN RUSSELL: Thanks, Deb.

25 Questions?

Page 107 1 MS. SHROPSHIRE: Mr. Chairman, for the 2 previous, same previous reason, I'm going to 3 recuse myself on this one. 4 CHAIRMAN RUSSELL: Duly noted. Other 5 questions, other than from Robin? 6 MR. WHALEN: Mr. Chairman, just as a 7 briefing question for a new member, relatively new member. 8 9 So EPA changed these requirements back 10 in 2006, and we're now considering in 2011. Is 11 that pretty much a standard time frame for trickle 12 down from the federal to the state level in terms 13 of enacting these changes? MS. WOLFE: Mr. Chairman, members of the 14 15 Board, I would say that the reason that there is 16 an apparent lag is that these standards have been challenged over time, and I don't have the 17 complete timeline in front of me, but the 18 19 standards have been challenged and reissued, and 20 2006 was when they finally were issued in the form 21 that they're issued in now. 22 When a standard is revised, there are 23 things that have to happen following that to 24 implement the standards with regard to permitting 25 programs. There were two different rulemakings at

the federal level issued that basically set out different requirements for these major sources, and so we're now going to incorporate them into our rules.

5 And I expect that ozone will be revised 6 here shortly -- that's another criteria pollutant 7 -- and I'll back before you guys doing a very 8 similar thing for major source permitting.

9 CHAIRMAN RUSSELL: This is interesting 10 because this was actually a lawsuit against the 11 EPA filed by the American Lung Association, I 12 believe, that promulgated the 2.5 stuff in the 13 first place.

MS. WOLFE: Yes, the American Trucking lawsuits were the PM lawsuits, I guess. It was a series of different opinions.

17 CHAIRMAN RUSSELL: But it started with18 ALA going after EPA, didn't it?

MS. WOLFE: Mr. Chairman, members of the
Board, I'm not going to speculate, but it is a
point of curiosity.

22 CHAIRMAN RUSSELL: Don't speculate then.
23 Any questions?

24 (No response)

25 CHAIRMAN RUSSELL: Hearing none,

Page 109 1 Katherine, are you ready, willing, and able? 2 MS. ORR: I am. CHAIRMAN RUSSELL: I will entertain a 3 motion to initiate rulemaking, appoint Katherine 4 5 the Hearing officer, and publish the notice. 6 MR. WHALEN: I would so move, Mr. 7 Chairman. CHAIRMAN RUSSELL: 8 It's been moved by 9 Mr. Whalen. Is there a second? 10 MR. MIRES: I would second it. 11 CHAIRMAN RUSSELL: It's been seconded by 12 Larry. Further discussion? Anyone in the 13 audience that I forgot to mention before we took 14 up a motion? 15 (No response) 16 CHAIRMAN RUSSELL: It looks like all DEO people now. Seeing nothing else come before us, 17 18 all those in favor, signify by saying aye. 19 (Response) 20 CHAIRMAN RUSSELL: Opposed. 21 (No response) 22 CHAIRMAN RUSSELL: Motion carries unanimously. 23 The next item -- this is the Gallatin 24 25 River ORW coming back before us again. Tom.

1 MR. LIVERS: Mr. Chairman, it's ground The Department is again requesting 2 hoq day. extension of this rulemaking, and it's been 3 happening for several years, and we still believe 4 it is the right course of action. You'll recall 5 6 that last year, given the fact that we had come 7 before the Board several times previously to issue a supplemental rulemaking notice and extend 8 9 rulemaking, but it made sense to really drill down 10 and make sure that there was still progress being made, and that this was still the right course of 11 12 action.

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13 And as we reported back to the Board on a couple of occasions last year, we do believe 14 15 this is still the right course of action. The 16 reason for that is this really has -- the Board's initial action to initiate this designation 17 provided the impetus for the parties to come 18 19 together to work on solutions to discharge issues 20 in the Gallatin River in the canyon, and there is a good working group established. We met with 21 22 They came here to Helena. We met with them them. 23 last summer.

And they're currently working on a pilot snow making project, snow making effluent, to 1 solve the problem of storage during the winter And you'll recall we provided a briefing 2 months. to this Board I think last fall. Todd Teegarden 3 was here to go into that. The Department has been 4 5 working with that group to work through the 6 discharge permit issues, and we've made good 7 progress. We have essentially a pilot that they will undertake next winter. So we believe that it 8 9 makes sense to continue this effort.

10 Because we can only extend by six months at a time, you see this frequently. You usually 11 12 see it a little bit more than twice a year or a 13 little bit sooner than six months, just to allow 14 the rulemaking notice deadlines to be met. So progress continues on this, and I think there is a 15 16 very good effort, very sincere and promising effort underway, and I think this rulemaking has 17 set the table for that effort, and continues to 18 19 help provide impetus.

20 So with that, the Department is 21 recommending again that the Board issue a notice 22 of supplemental rulemaking, which has the effect 23 of extending public comment period extending the 24 rulemaking period.

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CHAIRMAN RUSSELL: Thanks, Tom. You

2 anymore, do you? 3 Did anyone read Jim Johnson's email? It is interesting. 4 MR. WHALEN: 5 CHAIRMAN RUSSELL: There is an email from Jim Johnson in here that's interesting, 6 7 require or obiento (phonetic) or something like that. All right, Tom. Thank you so much for your 8 9 comments regarding this. 10 MR. MIRES: I have one question. Does the Department have any idea how many more 11 12 extensions we're going to look at, given the fact 13 that we're looking at a test next winter on the snow issue? 14 15 MR. LIVERS: Mr. Chairman, Mr. Mires, 16 good question. I don't know if I can answer that. I'm not sure we have people here -- Todd Teegarden 17 is here to answer that. He might be able to give 18 19 a sense of what the plan is for the pilot. I 20 think it wouldn't be out of the question that this

probably don't even need a script for that

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may continue for another couple years, and I think 21 22 that's what you're getting at. We'll look at this 23 pilot, we'll have to evaluate it.

24 MR. MIRES: So with that concept in 25 mind, does that negate then all the studies that

have been done over the past years as far as
Environmental Impact Statements and other issues,
or do we end up starting all over again in a
couple years when we get to the end of the pilot
program, or is it best to maybe kill it now and
then start all over? Is that what we're looking
at? I don't know.

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8 CHAIRMAN RUSSELL: We don't want to do 9 that.

10 MR. LIVERS: Mr. Chairman, Mr. Mires, 11 that wouldn't be our recommendation. I think what 12 you're getting at is obviously any environmental 13 document, in this case the EIS that was done, has 14 a shelf life. There might be others from the 15 Department who could speak to just how temporal 16 this one is.

17 My sense is it was based on certain assumptions of a footprint for hydrologic 18 19 connectivity that I think probably will be as good 20 a few years from now as they were when it was first postulated. So I think we'll still have a 21 22 good starting point in that EIS. I think our hope is that the alternative solution will essentially 23 24 eliminate the need for designation as an 25 Outstanding Resource Water, because they're

attacking the key problem in the canyon with this.

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You'll recall that basically the issue, 2 3 of course, centers around development generally in the west fork area and then in the Big Sky area. 4 5 The Big Sky Water and Sewer District has some 6 capacity left in the system, but it wants to 7 preserve some growth capacity. Getting some of the denser development onto that system in the 8 9 vicinity of the west fork and up and down the 10 Gallatin main stem will certainly help, but in order to do that, the district doesn't want to 11 12 preclude its growth capacity, and the real 13 limiting factor right now is storage during the winter months. 14

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15 So I think I'm repeating things you 16 folks already know, but just to kind of lay out the basic thesis. The snow effluent capacity 17 since -- during the summer months, we're land 18 applying on the three golf courses in the area. 19 20 The real constraint is in the winter. If we can really test out, and find that the snow effluent 21 22 option is a viable way to proceed, it will essentially, in our opinion, really alleviate the 23 24 key pressure points on the discharges in the 25 canyon.

But ultimately I think the hope for the solutions that the working group has put together on this is that they hope to -- they think they're coming up with a solution that, if it pans out, will be as or more protective than would be the ORW, Outstanding Resource Water designation. So I hope that answers your question. Page 115

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MR. MIRES: It does.

9 CHAIRMAN RUSSELL: I was looking at the 10 notice, and it actually doesn't have any dates in 11 it, so do you have some suggestions for some 12 dates? It just has a bracket for the date. We 13 only have six months.

MR. NORTH: Mr. Chairman, John North. 14 I recall something about the Board didn't 15 Yes. 16 want to have dates in notices, because then if people saw it in draft form, they would think the 17 notice had been already sent out or whatever, so 18 19 that's why it doesn't have that. As I recall, I 20 checked, and it would have to go to the December 21 meeting, so I believe that the date would be 22 somewhere around November 8th or so. So if the 23 Board could just give us the ability to set the 24 comment period at a time that would allow us to 25 get to the December Board meeting, that would be

1 sufficient, I think.

2 CHAIRMAN RUSSELL: Works for me. Δ]] 3 Is there anyone out there that would like right. to speak to this before we take action? 4 5 (No response) 6 CHAIRMAN RUSSELL: I don't see anyone 7 jumping up, so although I have lots of questions, I'm going to hold them. I would entertain a 8 9 motion to extend the rulemaking to a date that is 10 accommodative of the December Board meeting. Do 11 we have to -- You're still the Hearing Officer if 12 this ever gets to -- or are we ---13 MS. ORR: I think it's before the Board. CHAIRMAN RUSSELL: Everything is still 14 15 in place. 16 MR. LIVERS: Mr. Chairman, I believe 17 we're hearing this. 18 CHAIRMAN RUSSELL: So all I need to do 19 is have a motion to extend the rulemaking, and 20 give the Department latitude to put in an 21 appropriate date. 22 MS. SHROPSHIRE: So moved. 23 CHAIRMAN RUSSELL: It's been moved by 24 Robin. Is there a second? 25 MR. MIRES: I will second it.

1 CHAIRMAN RUSSELL: It's been seconded by 2 Larry. Further discussion? 3 (No response) 4 CHAIRMAN RUSSELL: Hearing none, all 5 those in favor, signify by saying aye. 6 (Response) 7 CHAIRMAN RUSSELL: Opposed. 8 (No response) 9 CHAIRMAN RUSSELL: Hearing none, carried 10 unanimously. The next item on the agenda is executive 11 12 summary for action on rule adoption with the list 13 of affected rules 17.30.201, 17.30.1341. MR. LIVERS: Final adoption, Jenny 14 15 Chambers is going to present this. 16 MS. CHAMBERS: Again, Jenny Chambers, 17 Chief of the Water Protection Bureau. The Department requests the Board adopt the final 18 19 rules that amend ARM 17.30.201 and the rules 20 pertaining to the permit fees under ARM 17.30.1341. 21 22 As stated in the initiation meeting, the primary purpose of this rulemaking is to provide 23 the administrative framework to allow the 24 25 Department to proceed with implementation of the

Montana Pollutant Discharge Elimination System
 Pesticide General Permit. In addition, this rule
 package provides a fee schedule information as
 required in the Montana Water Quality Act.

5 The Montana Water Quality Act requires 6 the Board to adopt rules that are sufficient to 7 recover the cost of issuing permits, licenses, and 8 other authorizations issued by the Department, as 9 well as administrative cost of operating the 10 program.

11 As a little bit of a background and 12 providing update on program activities, in 2007, 13 EPA issued a rule exempting pesticide application for discharge permitting requirements under the 14 Federal Clean Water Act. This rule concluded that 15 16 pesticides applied in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act, also 17 referred to as FIFRA, was exempt from Clean Water 18 19 Act permitting.

In January of 2009, the EPA rule was vacated by the Federal Court of Appeals, and EPA received a two year stay. The original deadline for permit coverage was April 9, 2011. Due to the delays from EPA on finalizing their permit and addressing other numerous comments they received in their draft permit process, EPA received an
 extension from the Courts until October 31, 2011.

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Due to the timing and to comply with the 3 original Court order, Montana DEQ did issue the 4 permit on April 9, 2011. This delay -- this 5 6 issued date permit had a delayed effective date 7 until November 1, 2011 to coincide with the extension received by the Courts. The delay will 8 9 allow us to watch the federal action that may 10 change federal legislation, that would hopefully 11 clarify that FIFRA would govern application of 12 pesticides to water, or any other programmatic 13 changes that may impact the Montana pesticide 14 general permit, in order to inactivate the permit 15 or reopen that permit to make any necessary 16 changes.

Therefore, in order to have this fee 17 infrastructure in place by the November 1, 2011 18 19 date, finalization of this rule package is still 20 needed. There has been a tremendous amount of stakeholder involvement and outreach before, 21 22 during, and after formal public comment period. 23 The public comment was from December 23, 2010 24 through January 24, 2011. We held a public 25 hearing on January 12, 2011.

1 Due to solicitation of comments and the Department urging affected parties to comment on 2 the fee rules, we received over 30 comments. 3 After serious consideration from the Department, 4 we reviewed all comments, and had made some major 5 6 changes to the draft rule package. These changes 7 would allow us to align the fee rules to the permit that was also implemented and currently 8 effective -- or issued but not effective. 9 We modified the definition of 10 11 multi-county and single county to remove any 12 reference to agricultural district, and instead 13 clarified that permit coverage and associated permit fees could be up to 20 contiguous counties 14 15 that may be included into one multi-county permit coverage. We also introduced a less than 16

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17 threshold categories in the permit. There is two 18 different tiers. There is a Tier 1, which is less 19 than a pattern use category; and a Tier 2, which 20 is a greater than threshold permit category.

In EPA's permit and other state permits, there is a certain level of amount of acreage of pesticides that can be applied to state waters before this would trigger permit coverage, so they're upholding kind of a permit by rule for anybody that would apply less than that pattern
 use threshold.

In Montana we have a less than 3 4 threshold category, because there was some 5 concerns from stakeholders that they might be 6 liable to lawsuits if they weren't able to obtain 7 a permit coverage because they didn't meet that 8 threshold category. It doesn't exempt them from applying from the general permit coverage, it just 9 10 would say they have to get an individual permit, or have to maybe comply with more stringent 11 requirements under the general permit. 12 13 So we structured the permit to have a 14 Tier 1 less than threshold category, less fees,

15 less owners permit requirements; and then a 16 greater than threshold, higher fees, more 17 requirements as far as best management practices 18 and compliance in monitoring requirements.

19 The fees associated with the less than 20 category in your packet is \$50 for single county, 21 \$100 for multi-county. That's for the application 22 of first year annual fee. For annual fees after 23 the permit has been issued is \$25 single county 24 and \$50 for multi-county.

25

We also reduced, greatly reduced the

1 greater than threshold category by over 50 percent 2 of the rates proposed in December. The rates now 3 are \$500 single county, \$1,200 multi-county, 4 application first year annual, and then \$250 and 5 \$600 for the annual fees associated with that.

6 I do have to provide a clarification and 7 correct an error in your guys' package. So if you could see Page 2 of the notice that was in your --8 So on the bottom of Page 2, you can see there the 9 10 underlined item, single county less than 11 threshold, multi-county less than threshold, and 12 then single county greater than threshold, and 13 multi-county greater than threshold.

14 When you go across and you see single 15 county greater than threshold, it's \$250 and then 16 \$500, which is correct. Multi-county greater than threshold, there is a typo in there. They pulled 17 down the numbers from the multi-county less than 18 19 threshold into the greater than threshold 20 category. Those numbers should reflect \$600 and 21 \$1,200. So multi-county greater than threshold, the renewal fee is \$600, and the new permit fee, 22 which includes the initial annual fee, is \$1,200. 23 24 The Department is committed and will 25 continue to work with permittees and stakeholders

1 on future projections, revenue needs, and 2 pesticide program implementation; and we respectfully request the Board adopt the final 3 rules to amend ARM 17.30.201 and ARM 17.30.1341 as 4 5 modified. Thank you. 6 CHAIRMAN RUSSELL: Thank you. 7 Ouestions? 8 MR. MIRES: I have a ton of them. 9 CHAIRMAN RUSSELL: You already warned 10 me. Larry. 11 MR. MIRES: First I really have to 12 commend the Department on addressing the comments 13 so well, and especially in amending what has come 14 out. But just so that you realize, I supported 15 initiating rulemaking because I really wanted to 16 hear comments of what other people had to say on this issue, and I have been following this since 17 the legislation and the legal outcome of it. 18 And I have a variety of questions. 19 20 After attending meetings from San Diego clear to Washington, D.C. on this topic, and 21 22 sitting through several House committee hearings on it, I think the Senator's first lead-off letter 23 24 has a lot in it, and I have to agree with where 25 we're at on it at this particular point in time.

1 OMB has been asked to do a review on it because there is a significant dollar factor 2 involved in it, and under the executive order. 3 Has that review ever come out from OMB to the 4 5 states, or to anybody to see yet, do you know? 6 MS. CHAMBERS: Mr. Chairman, Mr. Mires, 7 no, to date I don't believe we've seen any OMB 8 review on the costs associated with implementing of the general permit requirement. The fee rule 9 10 package was specifically to have the framework to 11 move forward, but we're watching very closely to 12 see if they make any significant changes to the 13 actual permit requirement and requirement that we 14 have to implement this program. 15 I'm on a couple stakeholder groups. I'm

16 very closely working with EPA Region 8 on any new 17 development and new guidance that we need to 18 evaluate our state program. So to date, we 19 haven't received any.

20 MR. MIRES: The Senators, in their 21 comment in their letter to OMB, issued a comment 22 that EPA decided to develop PGP under the Clean 23 Water Act instead of challenging the Court's 24 mistaken ruling, and they seemed to be quite 25 adamant in understanding that the Court has a

mis-ruling, or consequently into the House they have HR872. And as of April 4, Senator Roberts introduced Senate Bill 718, which is a companion of 872, and he currently has 17 co-signers, and he's waiting for action in the Agriculture Committee.

7 And I thought it was unique how the 8 Department interpreted the anticipation of both of 9 this legislation as it passes through Congress, 10 that if this does pass, then everything we're 11 doing here now becomes moot.

12 So I guess my question is, before we go 13 too far down the road, would it not be better to wait until October 31 and see if Congress actually 14 15 has acted on this before proceeding forward into 16 this, and then act upon the rulemaking? Would that -- I don't know how to pose that question. 17 Ι quess I'm asking: Would it be to our advantage to 18 19 hold off before we enact it?

20 MS. CHAMBERS: Mr. Chairman, Mr. Mires, 21 to answer your question, we did evaluate that, and 22 the rulemaking process, as you're aware, is about 23 a six month process at least. If we adopt the 24 rules this month, they will go into effect in 25 June. That will allow us to work with the permittees to obtain permit coverage necessary
 under new fee rule structure.

If the rules don't go into place, and I 3 wait until October or November to come back to you 4 to either ask for extension and then adopt the 5 6 rules, it will be a delayed process, and any 7 applicants that need to apply for permit coverage would pay the old fees, which is a very, very 8 higher amount, which is only one fee associated 9 10 with one general permit category, that they wouldn't have the mechanism of a single threshold 11 12 multi-county. They'd have to file NOI for each 13 time they apply pesticides to state waters.

14 If these rules don't get adopted at this 15 time, and let's say Congress does move forward 16 with changing some of the requirements, these will just sit stagnant on the rule package. We won't 17 be used because we won't have anybody come in for 18 permit coverage under the pesticide general permit 19 20 They will have to comply with the 308 category. provision, which we did lower that fee category, 21 22 because we think that number is going to go up if 23 that does go into place.

24 So that's also a benefit to adopt the 25 rules now. Just in case this does change, we'd have a lower fee for those folks that needed to
 comply with 308 in the future. Hopefully that
 answered your question.

We also just had additional -- some 4 clarification stuff in this fee rule package we 5 6 wanted to also get corrected. I will be back to 7 you in the October and November time frame to initiate rulemaking to take that part of the fee 8 rule package out if we don't need to use that 9 10 pesticide general permit category numbers in the 11 fee rule package. I'll ask for those to be 12 repealed.

MR. MIRES: Under 308, is that just for -- Under the existing 308, is that just for cities and counties, or does that apply to all pesticide applicators? Can you explain 308 to me a little bit?

18 MS. CHAMBERS: Sure. Mr. Chairman, Mr. 19 Mires, when I referred to 308, it's under the MCA 20 subsection of 308, which says it's an exemption, short term exemption to exceed a water quality 21 22 standard. The application of pesticides is for 23 that sole purpose, is to exceed a water quality 24 standard for whatever type of pesticide they're 25 applying. It's a residual amount that's left over

1 that we're concerned with. So it would apply to 2 anybody that would apply pesticides to state 3 waters that would have the potential to exceed a 4 water quality standard.

5 Currently we probably have about 40, 45 6 that have active 308 authorizations. Those 7 include municipal, counties, some of the National Forest, Parks, Yellowstone County; piscicides, 8 Fish, Wildlife, and Parks have a lot of piscicide 9 10 applications of pesticides that actually do fish 11 kills. They're required to get 308 coverage. 12 We're estimating that if this pesticide general 13 permit goes away, that the 308 authorization would potentially go up to 100, 150, from about the 40 14 15 that we're currently at.

16 There has been some talk, at least from 17 some of the larger applicators -- Fish, Wildlife, 18 and Parks, some of the national park applicators 19 -- they like the general permit structure better 20 than they like the 308 process.

21 So whichever direction this goes, we'll 22 probably continue to work with stakeholders to 23 figure out what we do to clean up the 308 process, 24 use new forms, new requirements, or provide 25 education and outreach, so that folks can comply

1 with general permit requirements. So either way, we'll be working closely with stakeholders. 2 MR. MIRES: So then if I understood your 3 response to Comment No. 3, if this was enacted, 4 5 then basically the 308 fee is going to drop to 6 \$250, and that would include their permitting of 7 pesticide as well? MS. CHAMBERS: Yes, Mr. Chairman, yes, 8 9 that is correct. Under the Water Quality Act, 10 they would have the requirement in Montana to have a 308 authorization. It would no longer be 11 12 required under the MPDES or Clean Water Act 13 requirement, so they would have the 308 14 authorizations under the Montana Water Quality Act 15 at the \$250 fee to cover that application for that 16 year. 17 MR. MIRES: You make it very difficult to make a decision. It's a no brainer, but by the 18 19 same token, it has raised a great deal of concern 20 for everybody in the agricultural community. And I guess, Mr. Chairman, from my perspective, I'm 21 22 concerned about adding the pesticide into here now 23 when it's already covered under the FIFRA, unless 24 you can explain to me how FIFRA does not cover

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what we're accomplishing today.

25

1 MS. CHAMBERS: Mr. Chairman. I see where your question lies within -- that it's a 2 pesticide applicator. They have to get licensed, 3 they have comply with permit conditions. 4 5 Department of Ag has primacy to regulate FIFRA 6 within the State of Montana. It's the Courts that 7 made the decision that the nozzle of the pesticide 8 and any residual to state waters is not exempt from the Clean Water Act, and therefore needs to 9 10 have a permit under the Clean Water Act, and it's 11 no longer subject to just be regulated under 12 FIFRA. 13 So I'm not questioning whether or not 14 that logically makes sense from a water quality

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perspective, or whether or not each act or regulation can comply with conditions associated with that act. We're just trying to implement and have our applicators be -- have permit coverage if they so choose to, so that they're not open for liability and lawsuits.

21 We worked very close, numerous 22 stakeholders meetings, had -- went out and did 23 training and seminars to counties, weed control 24 districts, been to a couple of the national park 25 conferences. I think in Montana I can honestly

1 say I think they're comfortable with the direction we've headed. If they have to be regulated under 2 the Clean Water Act, they like the permit we came 3 I believe they're comfortable with the 4 up with. fees that are associated with it if that's the 5 6 direction they go. 7 They're still holding their breath, thinking that hopefully somebody will enact 8 9 something so that FIFRA would be the only 10 regulation they need to comply with; but at least I think we've done the leg work in Montana to try 11 12 to move this forward. If we have to regulate it, 13 this is the best we can do with what we've got to deal with. I probably made it tougher there, too, 14 15 with --16 MR. MIRES: No, you didn't. It's very 17 I will relinquish -obvious. 18 CHAIRMAN RUSSELL: Just some procedural 19 questions. When you addressed the responses to 20 comments and made the changes to the rule, do you still feel that it meets the intent of rulemaking 21 22 that we started with? You took out some major 23 categories. 24 MS. CHAMBERS: Right. Mr. Chairman, I 25 also have my Legal Counsel here, Jim Madden, also

available if you want to talk about the
 administrative process.

But it's my understanding that if we get comments specifically to our rule package that could be addressed to make significant changes in the rule package, that we could make those necessary changes.

I would maybe not be as comfortable if 8 we vett these rules through the stakeholder groups 9 10 as far as the comments we received, what intent we 11 thought we were going to do, the options as far as 12 multi-county changes, the amount of fees 13 associated with that in order to have this final rule package. I would probably agree with you 14 15 that we probably would need to go out again for 16 public comment and start the process over again. 17 But the folks that provided those comments have had an opportunity to see our 18 19 responses, and we have also provided the

20 opportunity for the other folks that were part of 21 this stakeholders group as far as the changes 22 we've made in the process. And a lot of the 23 changes were to align with the permit that was 24 also going through drafting when I came forward to 25 initiate rulemaking, how that permitting program would be implemented versus how the fees would be
 established. But do you want legal --

MS. SHROPSHIRE: I would like to hear
the legal response, if that's -- because just -MR. MADDEN: Mr. Chairman, members of
the Board, for the record, my name is Jim Madden.
I'm Department Legal Counsel, and I did work on
this pesticide rule.

9 The general principle in administrative 10 rulemaking is that agencies have a broad latitude to make changes to their proposed rule in response 11 12 to comments, and there is quite a bit of case law 13 on that on the federal side, and we have looked at The federal case law in fact is so broad that 14 it. 15 it's almost unlimited. Agencies can make very 16 broad changes.

17 Generally what we tried to do here is avoid making changes in the response to comment 18 19 process that's going to significantly surprise 20 anyone in terms of putting an increased burden on somebody. A person who reads the initial notice 21 22 understands that they're going to be subject to "X" amount of regulation. We try to not, in the 23 24 response to comments, double that amount of 25 regulation.

1 And in fact what happened here, though, I think was -- the main comment was the fees are 2 too high, and we lowered them; and the other main 3 comment was the definition of the county permit 4 was restrictive and tough to work with, and so we 5 6 changed that to make it less restrictive, too. So 7 I felt like we were well within the scope. CHAIRMAN RUSSELL: I felt it should be 8 9 on the record. Any further questions for the 10 Department? MR. WHALEN: Mr. Chairman, I have two 11 12 questions. One would be for probably Ms. 13 Chambers, and the other might be for Tom. Ms. Chambers, my first question is 14 15 assuming the rulemaking is approved, and it goes 16 forward, and we have a new regulatory structure, are federal agencies responsive to that regulatory 17 structure? In other words, if BLM has some 18 19 spraying that they need to do out at some range 20 research laboratories, or if the Forest Service has some spraying that they need to do, are they 21 22 subject to Montana rules, or are they subject 23 simply to EPA rules? 24 MS. CHAMBERS: Mr. Chairman, Mr. Whalen, 25 they are subject to Montana rules. We have

1 delegated primacy and authority to implement permits on federal facilities and federal 2 3 agencies, so federal partners, everybody in the state of Montana, will be required to be subject 4 5 to the Montana requirements and fees. 6 MR. WHALEN: Thank you. The second 7 question, Tom, relates to budget. Like Mr. Mires, 8 I'd like to compliment the Department on trying to 9 make some accommodations to some of the objections 10 that were made. My perennial concern with some of these adjustments that are made is that the new 11 fee structures as amended don't cover the cost of 12 13 permitting and enforcement. I guess my question would be: 14 With 15 these adjustments, is the agency going to be able 16 to handle budgetarily the additional cost of

17 permitting?

18 MR. LIVERS: Mr. Chairman, Mr. Whalen, 19 let me make a general statement, and then I might 20 actually rely on Jenny to talk specifically about 21 this particular budget. I don't know the answer 22 in that detail.

Generally on fee based programs, we do try to cover our costs; and in some cases, we have some statutory requirements in Montana law that

1 require us to collect fees commensurate with It's kind of a mixed bag in the 2 costs. There were other places where we had 3 Department. 4 fee caps. In some cases those caps are set in In other cases, the Board has sole 5 statute. 6 authority to establish fees. Sometimes in those 7 former cases, the Board has authority to establish 8 up to those statutory caps, and in other cases, like air quality, for example, we don't have those 9 10 statutory caps.

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11 So we do try to cover them. In some 12 cases we've operated programs that are a little 13 bit of a hybrid, in that they're more than just a 14 fee based regulatory program. We might have, on 15 delegated programs, we might have some money out 16 of our main EPA grants to help cover some of the Often those costs go toward compliance and 17 costs. other kind of permit related activity, but is not 18 germane to the permit process itself. 19

20 So there is no one size fits all answer, 21 I guess is what I'm getting at, from the 22 Department. We do run into places where I think 23 we're subsidizing from some of the these other 24 sources, maybe federal sources in particular. 25 We're subsidizing the costs of the program and not

1 fully collecting under permit fees.

In some cases, we haven't brought air quality permit increases for a couple years because we're mindful of the economy, but in that case, we're deferring some things that we can defer in the short term; and probably the long term, we can't ignore forever, so we'll have to come back on that.

9 But specifically, I don't know the 10 answer, and maybe I would ask Jenny to comment on 11 your specific question about, "Are we able to 12 cover our costs, and if so how?," and then 13 depending on that answer, I may weigh in again on 14 I guess the Department's position.

15 MS. CHAMBERS: Mr. Chairman, Mr. Whalen, 16 we did evaluate specifically on trying to establish what that fee would be in December, and 17 then also subsequently how we lowered those fees. 18 19 We're estimating about one and a half FTE within 20 the program to kind of manage the new pesticide permit program, which not only includes getting 21 22 authorizations out under the pesticide general permit, but also compliance and possible 23 24 enforcement if potentially needed, but that's 25 going to be several years out into this permit

1 cycle before we start taking that approach.

A lot of the comments we got from the stakeholders during some informal comments were: "How can you just justify the fees it's currently at when you don't know what universe and what kind of compliance you're trying to evaluate to say is that going to be sufficient to cover the cost?"

So we took a step back, saying, "Yes, we 8 9 think this is a good fair ground to start with," 10 continue to work with stakeholders on budget projection and resource needs. If this ramps up 11 12 and we end up getting more than our estimated 13 amount of people that need to apply for permit coverage, or if complaints or compliance is 14 15 getting ramped up because EPA hasn't come out with 16 their compliance strategy under the federal requirements, then we might have to come back to 17 the Board to say we need to have an increase in 18 19 fees based upon the more we know now that we tried 20 to implement the program.

21 So we thought it was a fair offer to 22 say, "You're right. We don't really know what 23 universe we're dealing with. We're not really 24 sure how we're going to implement this program, 25 what kind of compliance and outreach is going to

		Daga 120
1	be needed," but we think this is going to be	Page 139
2	enough to get us started for the couple years, and	
3	then may have to come back and reevaluate the fees	
4	at a later stage.	
5	MR. WHALEN: Thank you.	
6	CHAIRMAN RUSSELL: Further questions?	
7	(No response)	
8	CHAIRMAN RUSSELL: Anyone in the	
9	audience that isn't the DEQ people? No? All	
10	right.	
11	With all that said, I would entertain a	
12	motion to adopt the rules as amended by comment,	
13	accept the Presiding Officer's comment, the House	
14	Bill 521 and 311 analysis, and the Department's	
15	responses to comments.	
16	MR. LIVERS: Mr. Chairman, Mr. North	
17	pointed out that if that motion could also	
18	incorporate the change that was presented	
19	verbally, that Jenny presented.	
20	CHAIRMAN RUSSELL: And I need those	
21	restated.	
22	MS. CHAMBERS: Mr. Chairman, the changes	
23	that would also need to be noted are on Page 2 of	
24	the rule packet. For single county greater than	
25	threshold actually for multi-county greater	

Page 140 1 than threshold, the renewal fee is \$600, and new permit fee is \$1,200. So just on Page 2, 2 3 multi-county greater than threshold fee amounts. CHAIRMAN RUSSELL: All right. We'll 4 start again. I would entertain a motion to adopt 5 6 the rules as amended, written, and the inclusion of the \$600 and \$1,200 fees to be added to Rule II 7 of the new notice, the Presiding Officer's report, 8 9 the House Bill 521 and 311 analysis, and the 10 Department's responses to comments. So moved, Mr. Chairman. 11 MR. WHALEN: 12 CHAIRMAN RUSSELL: It's been moved by 13 Mr. Whalen. Is there a second? 14 MR. ANDERSON: I'll second. 15 CHAIRMAN RUSSELL: It's been seconded by 16 Further comments? Larry. 17 (No response) 18 CHAIRMAN RUSSELL: Hearing none, all 19 those in favor, signify by saying aye. 20 (Response) 21 CHAIRMAN RUSSELL: Opposed. 22 (No response) 23 CHAIRMAN RUSSELL: Thank you for your 24 work on this. 25 MR. MIRES: Mr. Chairman, can I make one

1 comment?

2 CHAIRMAN RUSSELL: Sure. I really would like to 3 MR. MIRES: commend the Department for addressing those 4 5 comments. And prior to coming in here I was 6 adamantly opposed to this rulemaking, but I think 7 the amendments that the Department did, and how they went out of their way to address the issues 8 9 and concerns of Montana, serves Montanans better 10 than when the original concept came out. I think 11 you've put in enough safeguards that protects 12 everybody's interests in the future. So I really 13 commend you on a stellar job that everybody did. MR. LIVERS: Thank you for those 14 15 comments, and certainly we appreciate it, and 16 Jenny and Jim and Jenny's staff did a very good job on this rulemaking, so thank you for that 17 recognition. 18 19 CHAIRMAN RUSSELL: The next item on the 20 agenda is a stipulation to dismiss violations of the Open Cut Mining Act by M. K. Weeden 21 22 Construction. Katherine. 23 MS. ORR: Mr. Chairman, members of the 24 Board, this is a case out in the Lewistown area. 25 It involved an Open Cut Mining Act violation,

Page 142 1 conducting an open cut operation without a permit. 2 In this case there were soils stripped and 3 stockpiled in preparation for mining activities, but a permit had not been approved. There were a 4 disturbed area of 3.9 acres without a permit. The 5 6 penalty requested by the Department was \$5,000, 7 and that was paid by the violator. CHAIRMAN RUSSELL: Okay. So with all 8 9 that in mind, I do have a dismissal order for Case 10 No. 2011-03-0C, and I would entertain a motion to 11 authorize the Board Chair to sign the dismissal 12 order. 13 MR. ANDERSON: So moved. 14 CHAIRMAN RUSSELL: It's been moved by 15 Larry. Is there a second? 16 MS. KAISER: I'll second. 17 CHAIRMAN RUSSELL: It's been seconded by 18 Heidi. Any further discussion? 19 (No response) 20 Hearing none, all CHAIRMAN RUSSELL: 21 those in favor, signify by saying aye. 22 (Response) 23 CHAIRMAN RUSSELL: Opposed. 24 (No response) 25 CHAIRMAN RUSSELL: All right. The next

item on the agenda appears to be an appeal of a
 violation of open cut mining. Katherine.

3 MS. ORR: Mr. Chairman, members of the 4 Board, this is a case out of Belgrade, Concrete 5 Materials of Montana. The notice of violation was 6 issued on March 21, 2011. The operator had a 7 permit for disturbance of 6.5 acres.

On inspection on April 29th, 2010, it 8 9 appeared that the size that had been permitted had 10 increased to 12 acres without a permit amendment 11 application. So the violations are conducting an 12 open cut permit operation on a non-permitted area, 13 and also a failure to follow the approved plan of 14 operation, which involved failure to install and 15 maintain permit boundary markers, and maintenance 16 of soil piles that are unstable and eroding, and inappropriately storing concrete and asphalt. 17 And the penalty requested by the Department is 18 19 \$11,640.

20 CHAIRMAN RUSSELL: And Katherine, what 21 are they appealing? 22 MS. ORR: Well, I guess they're 23 appealing the request of the Department to impose 24 that penalty, but I can double check that. 25 CHAIRMAN RUSSELL: That doesn't need to

1 be answered. All right. 2 MS. ORR: I see what you're saying. CHAIRMAN RUSSELL: Just irony. With 3 that, the action we need to take is appointment of 4 5 permanent Hearing Examiner. I'm sure Katherine is 6 ready, willing, and able --7 MS. ORR: T am. CHAIRMAN RUSSELL: -- to do that. 8 So T 9 would entertain a motion to assign this case to 10 Katherine. MS. SHROPSHIRE: So moved. 11 12 CHAIRMAN RUSSELL: It's been moved by 13 Robin. Is there a second? 14 MR. MIRES: Second. 15 CHAIRMAN RUSSELL: It's been seconded by Larry. Further discussion? 16 17 (No response) 18 CHAIRMAN RUSSELL: Seeing and hearing 19 none, all those in favor, signify by saying aye. 20 (Response) 21 CHAIRMAN RUSSELL: Opposed. 22 (No response) CHAIRMAN RUSSELL: Motion carries 23 24 unanimously. 25 MS. ORR: Go to the next one, Mr.

1 Chairman?

CHAIRMAN RUSSELL: Yes. There is an 2 Yes. Violations of the public water 3 appeal. supply laws by Jore Corporation. And I do have to 4 5 tell you that I was contacted by their 6 environmental engineer, I believe, and asked them 7 to contact the Department for further discussion because I certainly wasn't going to engage in 8 9 offline comment.

10 MS. ORR: Mr. Chairman, members of the 11 Board, this is a somewhat different appeal, in 12 that it's an appeal of an amendment to a Notice of 13 Violation. The original Notice of Violation I 14 have not seen, but it is an appeal to the 15 amendment. And the appellants are I think 16 basically objecting to the portion of the corrective action plan in the amendment to the 17 NOV, which requires that the Appellant retain a 18 19 licensed professional who can help them implement 20 the corrective action plan.

21 Other items under the corrective action 22 plan are to meet or serve, implement the MCL's; as 23 I mentioned, retain a licensed professional 24 engineer; funding plan to implement corrective 25 action; and present a schedule.

Page 146 1 CHAIRMAN RUSSELL: All right. The action in front of us is to either hear this or 2 3 appoint Katherine as the Hearings Examiner. Do I have motion to appoint Katherine? 4 So moved, Mr. Chairman. 5 MR. WHALEN: 6 CHAIRMAN RUSSELL: It's been moved by 7 Joe. Is there a second? MS. SHROPSHIRE: 8 Second. 9 CHAIRMAN RUSSELL: It's been seconded by 10 Robin. Any further discussion? 11 (No response) 12 CHAIRMAN RUSSELL: Hearing none, all 13 those in favor, signify by saying aye. 14 (Response) 15 CHAIRMAN RUSSELL: Opposed. 16 (No response) 17 CHAIRMAN RUSSELL: The last one is 18 septage disposal licensure law violation. 19 MS. ORR: Mr. Chairman, members of the Board, there was an issuance of a Notice of 20 21 Violation, a compliance and penalty order. The 22 violation involves disposing of septage on a site not approved by the Department after notification 23 24 to the operator that he should not operate his 25 business until the disposal site was approved, and

1 the operator/owner land applied ten loads of septage on his own property. The requested 2 3 penalty is \$5,000. 4 CHAIRMAN RUSSELL: There is something in the law about own property, isn't there? Probably 5 6 not by a business. I think it's something for 7 farmers that they can do that? I guess I need to 8 ask you. 9 MS. ORR: Well, in construing the 10 statute after this case is over, I'll be able to 11 answer it. CHAIRMAN RUSSELL: I'll just await your 12 13 comments on that then. Since you're already ready 14 to go on it, I will entertain a motion to have 15 Katherine be appointed as our permanent Hearings Examiner on this. 16 17 MR. ANDERSON: So moved. 18 CHAIRMAN RUSSELL: Larry Anderson has 19 moved. Is there a second? 20 MR. MIRES: Second. 21 CHAIRMAN RUSSELL: Larry Mires second. 22 Any further comments? 23 (No response) 24 CHAIRMAN RUSSELL: Seeing none, all 25 those in favor, signify by saying aye.

1 (Response) 2 CHAIRMAN RUSSELL: Opposed. 3 (No response) 4 CHAIRMAN RUSSELL: That is it except for 5 general public comment. Is there anyone out there 6 that's not affiliated that would like to speak to 7 the Board on matters that the Board has jurisdiction on? 8 9 (No response) 10 CHAIRMAN RUSSELL: Seeing none, I will entertain a motion to --11 12 MR. LIVERS: Mr. Chairman, I have a 13 couple of quick administrative things if I may. Just a reminder, the next meeting is July 22nd. 14 15 We do not know yet if that is going to be face to 16 face or teleconference. I think we have a few rulemakings, so there is a chance we may do it in 17 18 person. 19 Another thing I left out of my 20 legislative summary, Senate Resolution 9, 10, 11 21 and 12, which successfully confirmed the four 22 Board members who were subject to confirmation: 23 Mr. Anderson, Ms. Kaiser, Mr. Mires, and Joe 24 Russell. So we're pleased to see that. 25 Finally just a personal note. Ι

1	appreciate the discussion this morning. I think
2	we've had a good meeting, good substantive issues,
3	and good questions from the Board, good
4	discussion, so I want to thank you for that.
5	MR. WHALEN: Move to adjourn.
6	CHAIRMAN RUSSELL: It's been moved to
7	adjourn. Is there a second?
8	MR. ANDERSON: Second.
9	CHAIRMAN RUSSELL: It's been seconded by
10	Larry. Any one who really doesn't want to
11	adjourn?
12	(No response)
13	CHAIRMAN RUSSELL: Hearing none, all
14	those in favor, signify by saying aye.
15	(Response)
16	CHAIRMAN RUSSELL: Opposed.
17	(No response)
18	CHAIRMAN RUSSELL: Good meeting.
19	(The proceedings were concluded
20	at 12:47 p.m.)
21	* * * * *
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24	
25	

		D 150
1	CERTIFICATE	Page 150
2	STATE OF MONTANA)	
3	: SS.	
4	COUNTY OF LEWIS & CLARK)	
5	I, LAURIE CRUTCHER, RPR, Court Reporter,	
6	Notary Public in and for the County of Lewis &	
7	Clark, State of Montana, do hereby certify:	
8	That the proceedings were taken before me at	
9	the time and place herein named; that the	
10	proceedings were reported by me in shorthand and	
11	transcribed using computer-aided transcription,	
12	and that the foregoing - 149 - pages contain a	
13	true record of the proceedings to the best of my	
14	ability.	
15	IN WITNESS WHEREOF, I have hereunto set my	
16	hand and affixed my notarial seal	
17	this day of , 2011.	
18		
19	LAURIE CRUTCHER, RPR	
20	Court Reporter - Notary Public	
21	My commission expires	
22	March 9, 2012.	
23		
24		
25		