

**IN RE: KENTUCKY RIVER AUTHORITY**

**MEETING NO. 143**

February 16, 2009  
1:00 P.M.  
Bush Building  
403 Wapping Street  
Frankfort, Kentucky

**APPEARANCES**

Mr. Randall Christopher  
CHAIRMAN

Mr. Bob Ware  
Judge Executive Ted L. Collins  
Mr. Warner J. Caines  
Mr. Daryl E. Newby  
Mayor Michael D. Miller  
Dr. Donald C. Haney  
Dep. Sec. Glenn Mitchell  
Proxy for Secretary Jonathan Miller  
Ms. Valerie Hudson  
Proxy for Secretary Len Peters  
Mr. R.C. Day  
Mr. Rex Morgan  
Mr. Warner Caines  
Mr. Tim Hazelette  
MEMBERS OF THE KENTUCKY  
RIVER AUTHORITY

Mr. Stephen Reeder  
EXECUTIVE DIRECTOR

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**APPEARANCES**

(Continued)

Mr. Don Morse  
Mr. David Hamilton  
Ms. Sue Ann Elliston  
Ms. Kayla Dempsey  
KENTUCKY RIVER AUTHORITY STAFF

**GUESTS**

Ms. Libby Carlin  
Mr. Marshall Smith  
Mr. Jeff Hall  
Mr. Gary Wells  
Mr. Gary Gilliam  
Mayor Gippy Graham  
Mr. Tony Massey  
Mr. Scott Phelps  
Mr. Greg Yankey  
Mr. Jeff Dingrando  
Ms. Vicki Goins  
Mr. David Brown Kinloch

**AGENDA**

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**MOTION TO APPROVE MINUTES OF MEETING #142 ....PAGE 3, LINE 21**

MR. MILLER: I make a motion we approve the minutes.  
MS. HUDSON: I'll second it.  
CHAIRMAN CHRISTOPHER: Second by Valerie. All in favor, say aye. Opposed likewise.

**MOTION TO ACCEPT AUDIT REPORT FOR FISCAL YEAR ENDED JUNE 30, 2008 .....PAGE 5, LINE 9**

CHAIRMAN CHRISTOPHER: With that being said and the good news, we will accept a motion to accept our Audit Report.  
DR. HANEY: So moved.  
MR. HAZELETTE: Second.  
CHAIRMAN CHRISTOPHER: So moved by Don and seconded by Tim. All in favor, please signify by saying aye. Likewise opposed.

**MOTION TO APPROVE FINANCIAL REPORT .....PAGE 17, LINE 8**

MR. WARE: Mr. Chairman, I move that we approve the Financial Report.  
CHAIRMAN CHRISTOPHER: Second?  
MR. MILLER: Second.  
CHAIRMAN CHRISTOPHER: All in favor, signify by saying aye. Opposed likewise.

**MOTION TO APPROVE FUNDING FOR 2009 WATERSHED MANAGEMENT GRANTS AS FOLLOWS:  
FRIENDS OF WOLF RUN - \$1,000  
MONTESSORI MIDDLE SCHOOL OF KENTUCKY - \$1,000  
McCONNELL'S TRACE NEIGHBORHOOD ASSOC. - \$1,000  
LETCHER COUNTY HIGH SCHOOL - \$2,000  
DIX RIVER WATERSHED COUNCIL - \$2,000  
INTERNATIONAL TRAINING & DEVELOPMENT CENTER - \$3,000  
BREATHITT COUNTY COOPERATIVE EXTENSION - \$3,000  
PROVIDENCE MONTESSORI SCHOOL - \$2,000.....PAGE 20, LINE 10**

MR. WARE: So, that's what we're bringing before you today, Mr. Chairman, is the funding as I just described of the eight project applications. And I will make a motion and we can discuss from there, but I will make a motion that the full Board approve those projects for our grant.

CHAIRMAN CHRISTOPHER: I'll reiterate what Bob said, that Lindell was really instrumental in helping the committee to come up with a plan of action on these.

You do try to reach out everywhere that you can reach out to. You do look at how many times we have already funded a project, other areas such as that to try to be as even and as equitable as we possibly can be. So, do appreciate that work. R.C.

MR. DAY: I was just going to second. I think he was making a motion.

CHAIRMAN CHRISTOPHER: Second.

MR. DAY: I would add one thing. This lady with that Letcher County High School group, Regina Donour, she has been chosen for the Teacher of the Year. And also she has just been granted I think it's a Fullbright Scholarship. She will be going to Germany to study. The lady is very intelligent and very, very highly educated. Good gal to deal with, work with. I know her well.

CHAIRMAN CHRISTOPHER: Any other Board members' thoughts?

MR. WARE: I hope she will be able to influence this year's work on the project.

MR. DAY: She will, I think.

CHAIRMAN CHRISTOPHER: We have a motion and a second then. If no discussion, all in favor of the allocations as presented, signify by saying aye. Opposed likewise.

**MOTION TO APPROVE PUBLIC OFFICIALS'  
LIABILITY POLICY FROM DARWIN NATIONAL  
ASSURANCE CO., OPTION #2 .....PAGE 59, LINE 20**

MR. MILLER: If you're asking for a recommendation, I would recommend the \$2 million.

MR. REEDER: Recommend the two?

MR. MILLER: Yes, with the new company.

MR. WARE: Is that total liability for the entire Board? If a lawsuit occurs, is the entire Board sued? Is the Chairman sued? How is that generally handled?

MR. REEDER: The way it typically happens is they just sue the Board and name the Chairman. It would probably name everybody in their

official capacity.

MR. MILLER: But to answer your question, it's a total of \$2 million coverage.

MR. DAY: If the Mayor moves it, I will second it and go with the \$4,225.29.

CHAIRMAN CHRISTOPHER: We've got a motion and a second. And since I'm Chairman of this, I'm going to move this one right along. Any discussion? All in favor, signify by saying aye. Opposed the same way. The ayes do have that one.

**MOTION TO APPROVE LEASE RENEWAL FOR  
HIGH BRIDGE PARK .....PAGE 61, LINE 6**

MR. COLLINS: So moved, Mr. Chairman.

CHAIRMAN CHRISTOPHER: Thank you, sir. A second?

MR. MORGAN: Second.

CHAIRMAN CHRISTOPHER: All in favor, signify by saying aye. Opposed likewise.

**MOTION TO ADOPT GUIDELINES FOR VESSELS  
TRAVERSING RIVER DAMS IN HIGH WATER .....PAGE 103, LINE 19**

MR. REEDER: And, so, Mr. Chairman, I would urge adoption, unless the Corps has a problem with it, that at least as a minimum requirement as I've outlined in that letter as a policy of the Board to advise these folks that want to navigate over the dam, be it commercial or be it privateers.

MR. DAY: You mean by having twelve feet of water over the---

CHAIRMAN CHRISTOPHER: A minimum of eleven to twelve feet, as he stated here in this letter.

MR. DAY: If Tim moves, I'll second it.

MR. HAZELETTE: I so move.

MR. DAY: Second.

CHAIRMAN CHRISTOPHER: A motion by Tim and a second by R.C. Any other discussion?

MR. MITCHELL: Steve, is there any discussion of insurance for these people if they were to damage one of our structures, posting some kind of bond?

MR. REEDER: We talked about that. It would just be a matter, Glenn, of--nothing wrong with that idea at all. In fact, I thought

about that and I thought how hard it would probably be to enforce the thing. But proof of liability insurance wouldn't be a bad addendum. I don't know how much to make it because I don't know what these things cost. Is it \$20 million? What is it? It depends on the nature of the damage.

MR. MITCHELL: A typical corporate liability of a barge coming in here. I would think they would have something.

MR. REEDER: So, whatever the typical would be.

MR. MITCHELL: Just research the industry and see what it is.

MR. REEDER: We'll look at that and add that to that. Proof of reasonable surety.

MR. CAINES: What kind of turbulence do those propellers put out? I know on the Ohio River, they put out a lot.

MR. REEDER: When you're under stress.

See, that was one thing that enticed them to ask us because coming back, if you've got the same level, you have to shut the engine off. But pushing against the current, you're digging down there.

That's why the river doesn't have a channel in it right now. The channel is disappearing because the tow boats are gone. Yeah, they will get down there. They will get twelve, fifteen feet down there or about eleven or twelve. That's where that number comes from. We have a staff member, Mr. Ashcraft who works for us on the locks and he is a lockmaster. Well, he used to hold a federal license to run a boat. Well, he was more concerned really than the Corps on that. He wanted fifteen feet. I said, well, if the Corps will take twelve, that's okay with me.

CHAIRMAN CHRISTOPHER: What was the amount of the bond that we required of David?

MR. KINLOCH BROWN: Seven hundred and sixty-three thousand one hundred dollars.

(MR. MILLER LEAVES)

CHAIRMAN CHRISTOPHER: I knew that was a point that we really discussed.

MR. KINLOCH BROWN: Anytime you go over \$400,000, the bonds are very difficult to get. If it was under \$400,000, we would have had a lot of options.

MR. REEDER: This wouldn't have to be a specific bond, and that's the case he's talking about. It would just need to be liability insurance. Why don't we say \$1 million.

MR. CAINES: That might force them to go some other route.

CHAIRMAN CHRISTOPHER: I think that would be pretty typical. Can we amend that?

MR. HAZELETTE: Could we ask for commercial users to come to the Authority office to get a permit?

CHAIRMAN CHRISTOPHER: That's a good idea because then a permit could have all the necessary items on it.

MR. HAZELETTE: Does this create a problem for the Authority office?

MR. REEDER: Not any more so than this except for them coming in and showing proof because you've got to write them a letter anyway. Of course, that letter is, in essence, a permit.

But if that's the way you want to proceed, then, that's fine, too. And you would restrict that pretty much to commercial users.

MR. HAZELETTE: Craft that would most likely cause damages.

MR. REEDER: They are more likely to cause damage.

CHAIRMAN CHRISTOPHER: Okay. Are we okay with that, making those modifications there after that amendment?

MR. HAZELETTE: Yes, sir.

MR. DAY: That's fine with me.

MR. REEDER: Yes, sir, Mr. Chairman. We'll change it and we'll bring it back at the next meeting.

CHAIRMAN CHRISTOPHER: I guess we made a motion. We ought to finish that up. Any other discussion? If not, all in favor, signify by saying aye. Opposed, likewise.

**MOTION TO ADJOURN .....PAGE 124, LINE 17**

CHAIRMAN CHRISTOPHER: I'll take motion to adjourn.

MR. DAY: You've got it.

MR. COLLINS: Second.

CHAIRMAN CHRISTOPHER: All in favor, say aye.

1 CHAIRMAN CHRISTOPHER: Good afternoon  
2 and welcome, everyone, to our 143rd meeting of the Kentucky  
3 River Authority. We welcome our guests as well.

4 I assume we have all wintered well and  
5 everybody's electricity is back on. Warner says don't call  
6 him if that's a problem. He's already had plenty of those  
7 calls. I hope everybody survived okay.

8 I know for us in our big county, it was  
9 a little different time with no electricity running around  
10 there for a few days. We'll probably be going to school  
11 probably up until the first of August and then we'll start  
12 again.

13 Ladies, do you all want to do a roll  
14 call.

15 (ROLL CALL)

16 MS. ELLISTON: Mr. Chairman, we have a  
17 quorum.

18 CHAIRMAN CHRISTOPHER: Thank you. It  
19 looks like the first thing on our agenda is approval of our  
20 minutes.

21 MR. MILLER: I make a motion we approve  
22 the minutes.

23 MS. HUDSON: I'll second it.

24 CHAIRMAN CHRISTOPHER: Second by

1 Valerie. All in favor, say aye. Opposed likewise.

2                   Before we get into our Financial Report  
3 with Don, if we could, we've got a little change here. We  
4 have Libby and Marshall from Crit Luallen's office. We'll  
5 let them go ahead and share with us our Auditor's  
6 Report, if you would please.

7                   MS. CARTER: My name is Libby Carlin  
8 and I was audit manager on the engagement. Jason Johnson was  
9 our auditor in charge, and Marshall Smith, who is with me  
10 today, was the primary auditor on the audit.

11                   And for the '08 audit, we performed our  
12 general task of internal controls which is the operations of  
13 the River Authority, and we also looked at the account  
14 balances to determine accuracy and proper classification, as  
15 we do in every standard audit for financial statements.

16                   The audit was very routine. We didn't  
17 have any tests that determined that we needed to do further  
18 procedures, nothing that we needed to expand. So, it was a  
19 very typical audit.

20                   And as a result, we did not identify  
21 any weaknesses in either the operations or any errors in the  
22 account balances which is very typical. It was very good.  
23 It indicated that management did its job this year as far as  
24 we could tell and our test results indicated that.

1                   That's all I need to say other than  
2 that we wanted to thank Mr. Reeder and Mr. Morse for all  
3 their assistance that they provided during the audit. So, if  
4 anybody has any questions for me.

5                   CHAIRMAN CHRISTOPHER: If there are no  
6 questions, first of all, I do want to thank our staff for  
7 that. In today's world, it's a great thing to have a good  
8 report from the auditors. We appreciate that very much and  
9 we appreciate our staff, Steve and Don, for doing a good job  
10 of keeping up with that. We appreciate that very much.

11                   With that being said and the good news,  
12 we will accept a motion to accept our Audit Report.

13                   DR. HANEY: So moved.

14                   MR. HAZELETTE: Second.

15                   CHAIRMAN CHRISTOPHER: So moved by Don  
16 and seconded by Tim. All in favor, please signify by saying  
17 aye. Likewise opposed. Thank you, Libby and Marshall, for  
18 sharing with us today. We appreciate that.

19                   Okay, Don, the Financial Report, all  
20 that money they say we have.

21                   MR. MORSE: They didn't tell you the  
22 good and bad news of the audit from last year.

23                   If you look at those very closely, you  
24 can tell there's a significant difference in the kind of

1 report that we put out for the auditors versus what you get  
2 each month. These monthly statements are cash-basis  
3 statements trying to tell you detail on an individual project  
4 and account activity and those statements are more  
5 generalized and summarized than these.

6                   They do say that we have over \$20  
7 million in net assets. What they don't tell you is most of  
8 that are defunct dams that are over 100 years old.

9                   Did everyone get the statement for the  
10 month of January? That came out a little late last week. We  
11 were waiting on some information from the trustee for our  
12 last bond issue and weren't able to get that out in time for  
13 the mailing. Did everyone get that today when they came in?

14                   I'll try to summarize this. We haven't  
15 met for three months. So, you have three months of financial  
16 statements here -- November through January.

17                   Note that we were collecting during  
18 this period our fees that were billed for the quarter ending  
19 last September. During that period on our Tier I fees, we  
20 billed \$277,000 on about 12.6 billion gallons of water use  
21 throughout the basin. At the same time, we billed on the  
22 Tier II fees for about 8.8 billion gallons of water use. So,  
23 the river composes about two-thirds of the total water use in  
24 the basin. Just an item of note.

1                   During that time, our collections on  
2 Tier I were \$271,000, leaving us with a small receivable of a  
3 little less than \$15,000. And the collections on the Tier II  
4 fees were, the billings were \$531,300 and there were some  
5 late billings in there. We ended up with less than \$1,000 in  
6 fees receivable at the end of the quarter.

7                   So, collections are good and our Tier  
8 II fees, of course, are up significantly from prior years  
9 because of our rate changes.

10                   The total water use during that period  
11 was actually slightly down basin-wide from the same period a  
12 year ago. We had a similar drought in '07 to '08. However,  
13 it was a little later in the year or started a little later.  
14 So, the water use during this particular period was up in  
15 '07 from the amount it was in '08, and both of them are still  
16 less than what our record year was in 2005.

17                   So, still the drought impacts on water  
18 use are much more dramatic than the increase in water use  
19 just from growth and new housing in the area which calls into  
20 question some of the planning efforts that we have for  
21 increased water supply in the basin. It's just not growing  
22 as quickly as was originally anticipated back when we did  
23 some studies ten or fifteen years ago.

24                   But you still have to supply people for

1 these spikes in demand during droughts, and we are short  
2 sometimes in being able to do that and still need to plan for  
3 more water supply.

4                   That pretty much covers collections.  
5 We ended the month of January with a cash balance of a little  
6 over \$1 million, \$1,047,000 of our Tier I account for general  
7 operations, and slightly over \$1 million of the Tier II  
8 funding.

9                   So, we're going to have some  
10 significant carryforward at the end of this year that we need  
11 to do something with, one, to avoid the possibility if we get  
12 tapped to help balance the General Fund, which a number of  
13 other people are going to be experiencing that very soon,  
14 and, two, to avoid having to constantly change our rates on  
15 these fees to our customers lowering them down and then  
16 immediately turn around and raising them back again as we  
17 plan more projects.

18                   So, what I would suggest to you is that  
19 we need to start planning for our capital projects during the  
20 next budget cycle. That begins pretty quickly anyway. In  
21 March, we start the capital budgeting process and that's due  
22 to the Legislature or the Capital Planning Committee in June  
23 of this year. And then based on that, you start planning  
24 your operating and actual capital budget requests that will

1 be coming this fall for the next two years.

2                   So, we need to start on that process  
3 pretty quickly and we've got significant funds here for a  
4 one-time cash contribution to some project that you deem  
5 worthy probably in the range of \$2 million, \$2.5 million.

6                   So, again, I wouldn't recommend to you  
7 that you lower the rates right now because we've still got  
8 revenue bonds authorized for capital projects that you can  
9 still pick out this pool funding, and it would use up more  
10 than the available revenue that you're going to have incoming  
11 for the next foreseeable future. So, there's no need of  
12 lowering the rates and turn right around and changing those  
13 people back again.

14                   As far as significant expenditures  
15 during the period from our general operations account, we  
16 paid a little over \$30,000 to USGS for the gauge system  
17 maintenance.

18                   We paid out \$30,000 to UK for the  
19 watershed management contract for this year, and we finally  
20 settled with them for their services last year. They had  
21 some accounting changes, some were UK, and they got a little  
22 bit slow, about six months behind in billing us. So, we  
23 finally settled with them in December.

24                   There wasn't anything else out of the

1 ordinary for those two fee-based operations, and, again, we  
2 ended with significant balances.

3                   If you look at the bottom of the page  
4 on the Tier II fees, page 3, there is a footnote there about  
5 the--if you go back to the December statement, there was a  
6 footnote about our note financing from 2007.

7                   Remember we did an interim financing  
8 for the project at Dam 9 which was a short-term, week-to-week  
9 rollover interest rate financing. That closed out when we  
10 did our bonds this past October, and we paid those off this  
11 December.

12                   When we retired those -- we kind of  
13 hated to do that -- we had an effective interest rate on that  
14 money of about 2.7%. So, very favorable; and when we did the  
15 bonds, we're into it for about 5.8%. We had to eventually  
16 permanently finance the project, but we are going to suffer a  
17 little bit on the interest cost. We wanted you to know that  
18 those were retired and it turned out to be a really good  
19 financing tool for us.

20                   For our lock operations, we were up a  
21 little bit on expenses during the month of January. I guess  
22 the last meeting we had was when Earl Gulley's retirement  
23 came up. Well, that cost us a little bit, too. When someone  
24 retires, you have to pay for all their accrued leave time,

1 and that cost us about an extra \$10,000 over our normal  
2 payroll for that month, but that was worth it to recognize  
3 Earl's good attendance over the years, and we wanted to note  
4 that for you.

5                   We had a couple of other personal  
6 service items during this past quarter. We had to do a  
7 repair job down at Lock 5 on the access road.

8                   While I may leave the nature of that  
9 project I guess maybe to David or someone else to explain  
10 what we've obligated for there, but we had about a \$5,000  
11 repair job and that was a bare-bones patch effort on that  
12 access road going down to Lock 5, but it was an unusual item.

13                   MR. WARE: Had it just deteriorated or  
14 did the property owner cause some of that or what?

15                   MR. MORSE: Probably the property owner  
16 did cause some of it, but it's not his responsibility to keep  
17 the road up. When we took over that easement from the Corps  
18 of Engineers, we're totally responsible for the maintenance  
19 of that road, from the county road all the way to the lock.

20                   MR. REEDER: We inherited a bad deal  
21 there, as you know, Bob, from the Corps, and we've spent a  
22 lot of money on that since I've been here for the last ten  
23 years. We've spent considerable money on this thing.

24                   It's in a slide area. It washes badly.

1 We had to relocate part of it one time and we have to get in  
2 and out of there. And, of course, the property owner is a  
3 good guy and he probably makes up for whatever we spend on  
4 him in additional security because nobody can get through  
5 there.

6 MR. WARE: It's the Sharp family, isn't  
7 it?

8 MR. REEDER: The Sharps. They've been  
9 there for 200 years literally. The problem with it was the  
10 way the Corps handled it to begin with; and when we took it,  
11 we had full maintenance responsibility of honoring it.

12 So, this last time, there were a couple  
13 of impassable areas, almost impassable to our own forces  
14 going down there with four-wheel drive vehicles, but at the  
15 same time it's an expensive proposition. Anderson County  
16 worked on it by contract, if you will recall, about four  
17 years ago for us and rebuilt the whole thing.

18 MR. WARE: Was that paved or chip and  
19 seal?

20 MR. REEDER: It was chip and seal, but  
21 they redid the drainage on it and that cost us about \$12,000,  
22 and, of course, it washed all away, too. But it's just not a  
23 good situation but in a way it's got some offsetting good  
24 things about it, too. At least they don't burn down our

1 buildings like they did two nights ago, and I'll tell you  
2 about that when I give the Director's Report, but it is  
3 secure in his hands, and we're obligated anyhow.

4 MR. MORSE: But our lock operations  
5 program I think is still on track. I believe we're going to  
6 be able to survive this budget, although we're looking at  
7 probably another--what are we on cuts now? We were at a 6.7%  
8 cut the last time.

9 MS. GOINS: Well, hopefully just the 4.

10 MR. MORSE: We've been going through a  
11 lot of scenarios with the Governor's Budget Office. So, I'm  
12 directing that question to our representative from that  
13 office. We were going to look at another cut of nearly 7% of  
14 our budget for lock operations which would make us really  
15 tight. I think we got a little relief from that being the  
16 tax package that passed in the Legislature last week.

17 We're in a situation where we can  
18 survive because of two things. One, our replacement for  
19 Earl, Sue Ann, is being paid from fee money. And, so, we've  
20 eliminated one salaried position from that program.

21 And, two, we're only operating one lock  
22 right now. So, there's not a lot of expense to lock  
23 operations to begin with. Most of what we're doing is  
24 maintenance of grounds, and, of course, that's a pretty

1 significant job in itself with only four people and covering  
2 a 250-mile territory from one end to the other.

3                   But it's going to be a tight program.  
4 And if we should have to incur some kind of a major expense  
5 such as a dredging operation or the situation we've got on  
6 this drift pile-up over here at Frankfort right now, if we  
7 had to hire someone to remove that, we simply couldn't pay  
8 for it from this program revenue. We would have to  
9 supplement it with fee money or do something different to  
10 make that happen, but we will survive this year.

11                   Capital projects. The account for the  
12 Dam 3 project really had no activity during this three-month  
13 cycle. We will talk about the status of that program later  
14 on but no expenditures or any financial transactions through  
15 January since our last meeting.

16                   We did make a final payment on the  
17 structural study project. That's complete. We're waiting on  
18 the Facilities Management folks to close the contract out  
19 accounting and legally, and then we will have about \$60,000  
20 of excess funding to bring back to our operations monies as  
21 soon as they do that.

22                   The Dam 9 project, we had one change  
23 order during this period for an increase in the Mahan  
24 contract of about \$43,000. We expended \$194,000 to Stantec

1 during the period and \$2,034,000 to Mahan, which right now  
2 Mahan is shut down. So, there won't be any expenditures for  
3 the next couple of months.

4                   We do have significant funding there if  
5 you look at the cash balance on that particular project. We  
6 have \$4.1 million in cash funding in the project. The  
7 encumbrance balance there represents the balance of Mahan's  
8 and Stantec's contracts as they stand right now. So, we have  
9 about \$1.4 million in excess funding for that project right  
10 now.

11                   When we talk later on about status of  
12 projects, you may want to consider either in this next  
13 capital budget cycle reallocating some of those monies to  
14 another project or doing something else with those excess  
15 funds because they're more than what we can foresee as coming  
16 in with any additional costs on the project right now.

17                   I did stick one extra page in the  
18 January statement that I haven't been showing you having to  
19 do with the bond issue that we entered into last October. On  
20 page 8, I'm showing you the funds as they exist from that  
21 bond issue with the trustee bank.

22                   We're not including any of these monies  
23 in our cash balance on the summary page for a couple of  
24 reasons. One, legally, the way this financing was

1 structured, we don't have first-hand possession, I guess, of  
2 these monies. They're dedicated to the bondholders.  
3 Technically, or according to accounting rules, they're  
4 actually monies of the Properties and Buildings Commission  
5 which was the issuer of the bonds.

6                   The only funds that we do have access  
7 to is what we're calling this rate stabilization fund that we  
8 funded at our last meeting. That's \$335,000, not enough  
9 really to do much of any kind of project with; and given that  
10 they had doubts about our credit worthiness, I don't think it  
11 would be a good idea to pull those funds out at this time  
12 anyway.

13                   Should they accumulate in the future to  
14 more in the range of a half, three-quarters of a million  
15 dollars, you may be able to pull some of those funds back and  
16 put them in another project or you could hold them until the  
17 next financing. And if they require something like this  
18 again, they will be available to you.

19                   It does show that we paid off the note  
20 issue. That's where the bulk of the expenditure there for  
21 debt service went to pay off the old notes.

22                   There was a little bit of a foul-up.  
23 Instead of paying the last interest payment on the notes from  
24 the monies that we put up for that purpose, they took it out

1 of this bond issue. Six one, half dozen the other. I mean,  
2 we would have paid it at any rate. The trustee got a little  
3 mixed up on which account was which.

4                   They did refund back to us, if you  
5 notice on the Dam 9 project, you've got a miscellaneous  
6 revenue figure there of \$332,300. That is actually money  
7 that we put up for debt service based on Financial  
8 Management's estimate for what the notes might have cost us.

9                   Apparently, they were pretty  
10 conservative in their estimates because we didn't spend but  
11 about half of what they asked us to put up. So, they  
12 returned those monies to us when the notes were paid off and  
13 they went back to the project for Dam 9. So, that helps  
14 boost our contingencies for that project.

15                   You've got a summary on the back page  
16 of the contracts we have outstanding and what we still owe on  
17 those. It's pretty straightforward.

18                   If anyone has any questions, I'll try  
19 to answer them. A lot of paper.

20                   CHAIRMAN CHRISTOPHER: Thank you, Don.

21                   Any questions?

22                   MR. WARE: Mr. Chairman, I move that we  
23 approve the Financial Report.

24                   CHAIRMAN CHRISTOPHER: Second?

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MR. MILLER: Second.

CHAIRMAN CHRISTOPHER: All in favor, signify by saying aye. Opposed likewise. Thank you very much, Don. I think we've got No. 4 taken care of.

A report on the Water Quality Subcommittee, Bob. Appreciate the work that this committee did, has performed on this. A lot of tough calls. There's always lots of requests and never as much money as we would like to have.

MR. WARE: Dr. Ormsbee always helps us out quite a bit in making informed decisions on that.

We met on January 14th primarily to consider this cycle's grant applications for our watershed grants. Once again, we were constrained by the amount of funding allocated for this purpose. We had to limit our approvals to \$15,000.

You should have all received either paper copies or electronically a description of the applications we received this year. I'm not going to go over in detail our discussions on all of these applications. There was a total of nine applications that we had received this time around.

Many of them, actually most of them were applications from entities that we had received previous

1 applications for. Some may be outside the specific watershed  
2 where we had received previous applications, but we had  
3 experience with most of these applicants.

4 And to cut to the chase, you should  
5 have received the final product that we're bringing before  
6 the full Board for approval today. We're proposing to fund  
7 eight of the nine applicants. We modified the grant amounts  
8 on some of these to keep us within the \$15,000 total  
9 constraint.

10 Specifically, the application from  
11 Friends of Wolf Run, they had applied for a \$3,000 grant.  
12 Our recommended funding decision is \$1,000. Essentially,  
13 they wanted to do three BMP's or applications at \$1,000  
14 apiece. We decided to recommend funding of one of those.

15 The Montessori Middle School of  
16 Kentucky, which is also in Lexington, Stoney Creek, which is  
17 approximate to the watershed that the Friends of Wolf Run  
18 were funded for, that's a combination best management  
19 practice application and educational activity. We felt like  
20 we were getting kind of the same thing from them that was  
21 being requested by Friends of Wolf Run. So, we funded their  
22 application or proposed to fund their application.

23 McConnell's Trace Neighborhood, we're  
24 proposing to fund \$1,000 of their \$3,000 request.

1                   The Letcher County High School, we had  
2 funded them the previous couple of years. We thought to keep  
3 the momentum going with that, that we would fund \$2,000 of  
4 that \$3,000 funding request.

5                   Dix River Watershed Council, we  
6 proposed to fund \$2,000 of that \$2,500 funding request.

7                   The International Training and  
8 Development Center, Cane Creek of the Red River watershed in  
9 Menifee County, we proposed to fund all of their \$3,000  
10 request.

11                   A new applicant is the Breathitt County  
12 Cooperative Extension, and we thought it was important to  
13 encourage activities in areas where we had previously not  
14 funded activities. So, we proposed to fund all of their  
15 \$3,000 request.

16                   The Providence Montessori School, we  
17 proposed to fund \$2,000 of their \$3,000 request.

18                   And you will notice, based on fairly  
19 detailed discussions if you all read the minutes of that  
20 meeting and based on recommendations from the Water Resources  
21 Research Institute, we didn't fund the Riverkeeper request.

22                   Most of you all have been privy to  
23 discussions of previous applications, and we just really  
24 weren't comfortable as a group in funding that at this time

1 given what we perceive is the importance of the educational  
2 element of the other projects that we funded.

3                   So, that's what we're bringing before  
4 you today, Mr. Chairman, is the funding as I just described  
5 of the eight project applications. And I will make a motion  
6 and we can discuss from there, but I will make a motion that  
7 the full Board approve those projects for our grant.

8                   CHAIRMAN CHRISTOPHER: I'll reiterate  
9 what Bob said, that Lindell was really instrumental in  
10 helping the committee to come up with a plan of action on  
11 these.

12                   You do try to reach out everywhere that  
13 you can reach out to. You do look at how many times we have  
14 already funded a project, other areas such as that to try to  
15 be as even and as equitable as we possibly can be. So, do  
16 appreciate that work. R.C.

17                   MR. DAY: I was just going to second. I  
18 think he was making a motion.

19                   CHAIRMAN CHRISTOPHER: Second.

20                   MR. DAY: I would add one thing. This  
21 lady with that Letcher County High School group, Regina  
22 Donour, she has been chosen for the Teacher of the Year. And  
23 also she has just been granted I think it's a Fullbright  
24 Scholarship. She will be going to Germany to study. The

1 lady is very intelligent and very, very highly educated.  
2 Good gal to deal with, work with. I know her well.

3 CHAIRMAN CHRISTOPHER: Any other Board  
4 members' thoughts?

5 MR. WARE: I hope she will be able to  
6 influence this year's work on the project.

7 MR. DAY: She will, I think.

8 CHAIRMAN CHRISTOPHER: We have a motion  
9 and a second then. If no discussion, all in favor of the  
10 allocations as presented, signify by saying aye. Opposed  
11 likewise. Appreciate it. Thank you all for that.

12 MR. WARE: And while I'm reporting on  
13 the actions of the subcommittee, Mr. Chairman, let me point  
14 out.

15 You will see a letter signed by Mr.  
16 Reeder. We also gave Dr. Ormsbee approval or authorization  
17 to expend money not to exceed \$23,000 for the purpose of a  
18 ten-year summary of data analysis on water quality data  
19 accumulations in the entire watershed that we have been a  
20 part of funding that.

21 That doesn't represent any new monies  
22 on the part of the Authority. It just gives Dr. Ormsbee  
23 authorization to expend portions of our money or their match  
24 money to do that ten-year assessment. And he said it would

1 also include incorporation of information garnered through  
2 all of our grants over the years. So, we provided that to  
3 him.

4 CHAIRMAN CHRISTOPHER: Thank you.  
5 Okay, Steve, report on Dam 9 project.

6 MR. REEDER: Dam No. 9. At the last  
7 meeting, you all will recall, we had some discussion and  
8 primarily it was at the behest of Mr. Day and Dr. Haney with  
9 regard to one change order we discussed regarding some  
10 leakage and a design problem that we encountered there.

11 But really what I wanted to do with  
12 this discussion was to bring Mr. Yankey and his group in from  
13 Stantec who are the design and the inspection engineers both  
14 and have them talk about the project along with our own staff  
15 and our own financial officer when it's appropriate.

16 We should have finished this project.  
17 This project was scheduled to have been completed now, in  
18 February of '09, which it is not. Now, it is what you would  
19 call substantially complete. It basically is we could  
20 approve this job the way it's standing with some  
21 modifications and some finishing-up work on it.

22 And now a new schedule has been  
23 developed with Stantec and the construction engineers, C.J.  
24 Mahan out of Columbus, Ohio. And that completion date has

1 been set for, say, I think it's August maybe.

2 MR. YANKEY: Late summer.

3 MR. REEDER: Late summer and is  
4 supposed to be signed off on and paid off and so forth by  
5 September.

6 That's considerably a few months more  
7 than what we had anticipated. However, we feel pretty good  
8 about the condition it's in right now. If you drove down  
9 there and looked at it, you would say, well, it's done, but  
10 there are things and Mr. Yankey is going to explain what we  
11 lack having done.

12 Also, you might want to get into that  
13 change order and a list of change orders that the contractor  
14 has pending -- no action taken -- and, of course, a dollar  
15 value on each one of those.

16 Also, in addition to the change orders,  
17 we talked about we have another lingering issue and that's  
18 the issue of liquidated damages on the project. Liquidated  
19 damages, of course, are those damages that are set for the  
20 contractor when he's late. And in this case, it's pretty  
21 considerable.

22 MR. YANKEY: Right. It's about a half  
23 million dollars or more.

24 MR. REEDER: Right, \$5,000 a day. Now,

1 there's some discussion within the Finance Cabinet, the  
2 engineering section of the Finance Cabinet that we want to  
3 forgive all or part of these and---

4 MR. YANKEY: You just have to bargain  
5 with them on future claims.

6 MR. REEDER: Exactly. We want to  
7 bargain with them. So, all of that is up in the air. I  
8 objected to the forgiveness of these things. I can  
9 understand that it's difficult to put a value on liquidated  
10 damages for something like this.

11 By law, when you have liquidated  
12 damages, the law here in Kentucky and most every other state  
13 basically says this. You can assess damage for tardiness in  
14 completing a contract, but the damages have to relate to  
15 something.

16 The nature of them and the reason you  
17 have them to begin with and you have these round numbers of  
18 so much a day or whatever is simply because of the fact that  
19 you really don't know what they are, but, on the other hand,  
20 they can't be so ridiculous to be considered by a court to be  
21 punitive.

22 If you build a house, for example, and  
23 your contractor is late, you say, well, for every day you're  
24 late, you're going to pay me \$100 a day or \$1,000 a month or

1 something like that. Well, that's going to be considered  
2 reasonable.

3                   What you're going to have is, you know,  
4 the guy has got to live somewhere and he can't sell his other  
5 house until he's got a place to live and on and on and you  
6 think, well, late fees. Even though you don't know what they  
7 are, you can still relate reasonably that these kind of  
8 damages like that basically relate to what the project is  
9 worth.

10                   Five thousand a day in this case could  
11 mean anywhere from nothing to a total catastrophe because  
12 from this pool you've got the City of Lexington. You've got  
13 parts of four or five other counties that draw water off of  
14 this, and Toyota, they get their water here.

15                   So, \$5,000 to me, you know, I didn't  
16 think it was far off on that. You could probably get away  
17 with more than that in a court of law.

18                   But that's what damages are supposed to  
19 be. You can't make them ridiculous. They can say, well,  
20 they're doing a good job. They're doing what they can.  
21 Well, I don't know if they are or not. I mean, you know,  
22 they're not finished. So, how do we know what they have  
23 done?

24                   But that's sort of the backdrop here

1 for what we're going to talk about. And, of course, Don  
2 Morse knows the monies we've got in our bond sale and what  
3 we've got in the bank to pay for this stuff.

4                   So, we've got to look at these change  
5 orders and the completion items in there in relation to what  
6 we've got in the bank to pay for it. And there will be a  
7 little leeway in that, but this is what we're going to be  
8 talking about and this is the purpose for having this.

9                   You can address them in whatever order,  
10 and our own engineer, David, will be a part of this, too, to  
11 the extent that he needs to be.

12                   MR. YANKEY: I don't have any material  
13 on the update as far as what needs to be done, but we can  
14 discuss that.

15                   Mr. Reeder asked me to come and speak  
16 today about these three issues. One is this north abutment  
17 seepage change order. You can see it outlined where the  
18 interlocks leaked on one of the cells.

19                   He asked me to talk about the change  
20 orders as he mentioned and also an update on the schedule,  
21 and we'll go through those three things. So, these are the  
22 three subjects I'm going to cover and I'll do it in that  
23 order.

24                   I'd like for you to understand this

1 discussion on this change order. You have to understand how  
2 we design these cylinders or cells that we've all talked  
3 about and you just saw the photograph of. Most of them are  
4 designed like this with the soil in-fill and they have a  
5 concrete cap. And you can see, this would be the upper pool  
6 and the lower pool.

7                   This is very typical if you look at  
8 cell dams in the Muskogee and the Grand River, Ohio. They're  
9 all built like this.

10                   DR. HANEY: Excuse me. Define soil.

11                   MR. YANKEY: Any granular material---

12                   DR. HANEY: Well, you engineers call  
13 everything soil and farmers do not.

14                   MR. YANKEY: Mostly what you have at  
15 Lock and Dam 9, they're solid concrete instead of soil, okay.

16 Now, there's two places where this isn't true and that's  
17 going up on the north abutment. And that's more or less a  
18 necessity to accommodate some things and I'll talk about  
19 that.

20                   One is when we did this design, we  
21 tried to optimize the concrete steel quantities. That's what  
22 you're paying for primarily. The other thing was as you have  
23 the ground line up here high, if you try to open this all the  
24 way up and fill it up with concrete, then, you're going to

1 have what they call a braced excavation and you're also going  
2 to have to dewater.

3                   So, what we did, and this is what is  
4 the subject of this discussion, we allowed two of these cells  
5 to have soil inside with just simply a concrete cap.

6                   Now, this is a substantial cap, but  
7 with this process, we were able to accommodate or avoid any  
8 braced excavations, dewatering and obviously reduce concrete  
9 quantities, so on and so forth.

10                   If you don't do that, then you end up  
11 with what they call braced and dewatered cells or a  
12 cofferdam, and it would look something like this, and then it  
13 would actually have to reconfigure and tie into a new cell.  
14 So, this actually would have shifted the entire footprint of  
15 the dam.

16                   So, that's why we chose what we did and  
17 those two things saved over \$1 million in the contractor's  
18 cost to not do one of these braced excavations. This is what  
19 this is. This is a bridge pier, but this is what it would  
20 have looked like as opposed to what we did. So, it's fairly  
21 costly to do this.

22                   What we saw in performance, this one  
23 cell had seepage at the interlocks. We thought it would seep  
24 a little bit. Didn't think it would seep as much as it did.

1 And the solution -- you can see it again here, right here.  
2 This is that one window basically that people have talked  
3 about.

4 So, to fix it, we came in there and we  
5 welded all of the interlocks on the cell -- pretty simple,  
6 crude fix. And we are also going to evaluate the coating on  
7 these sheets later on.

8 That one change order is eleven right  
9 here on this table. You all will probably have a hard time  
10 seeing this. Maybe it's easier in your handout. The  
11 welding, \$85,000.

12 If you look at all the change orders to  
13 date, going back to number one through eleven in total, the  
14 contract money has actually decreased. In other words, we've  
15 saved about \$10,000 to date, if you look at all these pluses  
16 and minuses in these change orders.

17 Now, the one that Don mentioned is not  
18 on this table. It's number twelve, but the \$43,000 or forty-  
19 four, whatever it was, and they gained in the schedule  
20 extensions due to hot weather or whatever thirty days.

21 DR. HANEY: What do you mean gained  
22 thirty days?

23 MR. YANKEY: They have got a schedule  
24 extension of thirty days to date.

1 DR. HANEY: To do this?

2 MR. YANKEY: No, no. Just in total.  
3 Here's the four days for change order two, seven days, so on  
4 and so forth. So, basically, we're running a negative .06%  
5 contract total. We saved about \$9,000 and the schedule  
6 extension is thirty days.

7 MR. REEDER: On that change order,  
8 Greg, that one change order we're talking about where you  
9 said we've got leakage. What we're talking about there, if I  
10 heard correctly, is \$84,000 versus \$1 million if you had done  
11 it---

12 MR. YANKEY: The other way, yeah.

13 MR. REEDER: According to the scheme,  
14 it was not accepted and you elected not to do it. Is that  
15 correct?

16 MR. YANKEY: Yes.

17 MR. WARE: Greg, could you go back to  
18 the picture that had the yellow line there where they're  
19 doing the welding work. Where does the concrete cap extend?

20 MR. YANKEY: It comes down to just  
21 about right there.

22 MR. WARE: So, it's right at the edge  
23 between the fines and the concrete?

24 MR. YANKEY: Yes.

1 MR. WARE: Any concern that there was a  
2 loss of enough fines that would cause any damage to the  
3 concrete consolidation?

4 MR. YANKEY: No. I mean, this  
5 structure is so massive, it's incredible. Now, we may want  
6 to look at coating some of these welds, but beyond that, I  
7 think we're happy.

8 MR. MILLER: And you're talking about  
9 just coating the welds?

10 MR. YANKEY: What's that now?

11 MR. MILLER: Just coat---

12 MR. YANKEY: Well, we probably will  
13 coat the entire sheet just to be safe.

14 DR. HANEY: What is that material  
15 upstream now?

16 MR. YANKEY: Here?

17 DR. HANEY: Yes.

18 MR. YANKEY: That's the ramp that comes  
19 down from Cell 1. This is a concrete ramp that goes all the  
20 way down. It's actually pretty massive.

21 MR. DAY: So, your completion date now  
22 instead of being sometime in February is going to be sometime  
23 in March?

24 MR. YANKEY: Well, bear in mind, this

1 is the contractor's stated schedule to date. Now, we haven't  
2 agreed to it yet. We've agreed basically right now that they  
3 should be done next week sometime, but obviously they're not  
4 going to make it.

5                   They just sent us a schedule last week  
6 and they're asking for a late summer completion. We're not  
7 real happy about that.

8                   Oh, I forgot to mention. Steve asked  
9 me to make a note. There are eight more anticipated change  
10 orders that we've talked about with Mahan or we're  
11 anticipating, and they're going to total about \$200,000 we're  
12 guessing. So, that's what is kind of laying out there that  
13 we're aware of. Some of them are pluses. Some of them are  
14 minuses.

15                   But as far as the schedule, because of  
16 these pending cost claims -- we talked about liquidated  
17 damages and we're going to talk about the schedule -- we want  
18 to roll all these together and have a discussion with the  
19 contractor because that's where we have the most bargaining  
20 power with these damages.

21                   So, that hasn't happened yet. We're  
22 waiting to get some costing information on some of these  
23 pending claims, but we're going to roll all this together and  
24 talk about it.

1 DR. HANEY: What is the environment in  
2 those cylinders out in the dam below the cap? Is that water  
3 saturated?

4 MR. YANKEY: Where is that now?

5 DR. HANEY: The next one out.

6 MR. YANKEY: There?

7 DR. HANEY: No. The next cylinder out.

8 MR. YANKEY: Oh, here?

9 DR. HANEY: Yes.

10 MR. YANKEY: That's kind of deceiving.

11 I didn't draw the little peanuts, but this is the next  
12 peanut between Cell 2 and 3.

13 MR. DINGRANDO: And that one is full  
14 concrete.

15 MR. YANKEY: It's full concrete. And  
16 from there over, everything is concrete, 100%. It's only in  
17 this area where we stepped up to save this money.

18 So, I think I've maybe answered most of  
19 the questions---

20 DR. HANEY: May I ask one more?

21 MR. YANKEY: Sure.

22 DR. HANEY: The cost of an additional  
23 \$1 million to have concreted all of them---

24 MR. YANKEY: To have redone this

1 differently, yeah.

2 DR. HANEY: And what is the life span  
3 of this dam?

4 MR. YANKEY: Fifty years.

5 DR. HANEY: So, what's \$1 million to  
6 absolutely ensure the integrity of the dam for fifty years?

7 MR. YANKEY: I think in its current  
8 condition, it's going to last a lot longer than fifty years.

9 DR. HANEY: So, you don't anticipate  
10 these things leaking again?

11 MR. YANKEY: No.

12 DR. HANEY: You didn't anticipate this  
13 one leaking to begin with.

14 MR. YANKEY: We thought it would leak  
15 some but not as much as we saw. We were surprised.

16 DR. HANEY: What if it starts leaking  
17 in twenty years? We have to fix it, don't we?

18 MR. YANKEY: That is the whole reason  
19 for doing this repair, that we didn't want you to have to do  
20 that anymore. We were concerned that it would be a long  
21 term. It wasn't an immediate issue. We were concerned about  
22 it being a long-term issue and that's why we recommended the  
23 welding.

24 CHAIRMAN CHRISTOPHER: What kind of

1 coating are we thinking about?

2 MR. YANKEY: Some kind of bituminous  
3 coating.

4 CHAIRMAN CHRISTOPHER: That has fibers  
5 in it?

6 MR. YANKEY: We haven't really--I don't  
7 know what you have researched, Jeff, but we're going to try  
8 to identify a product and see what the contractor would  
9 charge to apply it.

10 CHAIRMAN CHRISTOPHER: I have a little  
11 experience and that's the reason why I asked that. They make  
12 a bituminous coating with fibers in it that you can spray on.  
13 We've used it to mitigate pyrite damages where we've had to  
14 seal an area to prevent cracking and moisture.

15 MR. DINGRANDO: We actually looked at  
16 it when we started doing the welding and decided to hold off  
17 on it because it was getting too cold to make sure it was  
18 going to adhere, but it's like a coal tar epoxy. So, they  
19 will sandblast the sheets first and then apply this epoxy  
20 after, and that should add some corrosion resistance to it  
21 over its life.

22 MR. DAY: Do you represent the  
23 contractor?

24 MR. DINGRANDO: Oh, I'm sorry. I'm

1 with Greg, with Stantec.

2 MR. YANKEY: Jeff has kind of been what  
3 I would call the resident engineer all the way through  
4 construction. So, he's had to be the one to tolerate a lot  
5 of heated discussions with the contractor, and we can  
6 probably give him credit for a net deduct to date.

7 MR. DAY: One thing bothers me a little  
8 bit. You say those things are going to be lasting fifty  
9 years, yet, the original dam that was there, it's a hundred  
10 and something years old, isn't it?

11 MR. YANKEY: And honestly this dam will  
12 last a lot more than fifty years. That was just what our  
13 directive was back in 1999 when we started the design and  
14 make it last fifty years. But the reality is you can imagine  
15 these things are going to be here a hundred years plus.

16 MR. REEDER: On those original ones,  
17 there's not any evidence anywhere that they had any design  
18 life whatsoever. They just lasted.

19 MR. YANKEY: They were built back in  
20 the early 1900's, and basically back then they built them by  
21 rules of thumb. There was no real hard engineering. This  
22 structure is built to last at least fifty years, which I  
23 think it will last a lot longer, but it's also built to  
24 accommodate crest gates which is something that may be on the

1 table in the future.

2                   So, it's designed for a much higher  
3 pool and it will function at least right now until you put  
4 crest gates on it. So, it's fairly robust.

5                   MR. REEDER: The crest gate will be in  
6 our plans, but given its location, it will be on there sooner  
7 than later and it is designed to accommodate a crest gate.

8                   And that leads us back to the monetary  
9 discussion because one of the reasons that these change  
10 orders are significant right now, and I'd like Don Morse  
11 maybe to comment if he could as he's listening to this, but  
12 there's \$200,000 worth of change orders that we don't see  
13 right now. We've got some change orders up here and we have  
14 no completion.

15                   So, depending upon how much money we  
16 have left out of this project, out of our bond issue or how  
17 much we could scrape together somewhere else, I want to look  
18 at a half million dollars worth of design to begin a crest  
19 gate as soon as we can. We talked about that in here. It's  
20 not anything new.

21                   So, basically, Greg, to put a bottom  
22 line on it, just leave the liquidated damages out of it for a  
23 minute, but what are we talking about? If things go  
24 according to plan, let's say the worst-case scenario, we've

1 got to pay these change orders, what are we talking about?

2 MR. YANKEY: Right now, we can  
3 anticipate between two and three hundred thousand dollars  
4 that we're going to be arguing over in the end.

5 Now, there could be stuff out there  
6 that--you know, we recommended going in with 10% which you  
7 all have carried. We haven't used it to date. If you wanted  
8 to double, you know, a conservative estimate of \$300,000 and  
9 carry that, I mean, that might be wise. But right now we can  
10 anticipate between two and three hundred thousand dollars.

11 MR. REEDER: Unfinished work.

12 MR. YANKEY: Unfinished work where they  
13 may claim---

14 MR. REEDER: Either way, change orders  
15 or unfinished work.

16 MR. YANKEY: Right.

17 MR. REEDER: And, Don, how does that  
18 stack up with what we've got in the bank?

19 MR. YANKEY: I'm sorry. Just change  
20 orders, not unfinished work.

21 MR. REEDER: Change orders. Okay.

22 MR. YANKEY: What's their billing to  
23 date, Jeff, do you remember?

24 MR. DINGRANDO: I don't remember. That

1 was what we were talking to David about, and I forget how far  
2 along they are.

3 MR. HAMILTON: I can't remember.

4 MR. DINGRANDO: They've probably been  
5 paid over 80% of the \$14.7 million.

6 MR. MORSE: Their contract balance is  
7 \$2,323,000.

8 MR. YANKEY: Okay. So, that's what is  
9 left, and you're carrying another 10% or 1.4 you say?

10 MR. MORSE: That includes that last  
11 forty-some-thousand change order. It doesn't include the  
12 eighty-five that you've got in process right now.

13 DR. HANEY: So, this \$300,000  
14 possibility would bring it up to \$15 million? Is that what  
15 you're saying?

16 MR. YANKEY: Thereabouts, yes. And,  
17 again, we haven't negotiated the claims yet.

18 MR. MILLER: That's assuming they get  
19 everything they ask for.

20 MR. YANKEY: Yes. That's worst-case.  
21 Now, if it were me and I were in you guys' shoes, I would  
22 take that number and I would double it. I wouldn't run  
23 myself short. And I'm not lobbying for Mahan either. I'm  
24 just telling you how things go. They're a pretty

1 sophisticated contractor.

2 MR. DAY: So, they are pretty sharp at  
3 finding ways to get more money. Is that what you're saying?

4 MR. YANKEY: Yes. They're good at it.

5 MR. MORGAN: I guess maybe I just need  
6 a little bit better understanding about this seepage thing.  
7 Now, is this seepage because water has gotten into the soil  
8 that's inside these cylinders?

9 MR. YANKEY: Basically, if you look at  
10 that one diagram, just below the water level, we've got a  
11 zone where it has seeped through from front to back.

12 MR. MORGAN: Now, if you're going to  
13 seal it in some medium or whatever, how far down are you  
14 going to wrap this cylinder, I mean, down below the existing  
15 ground level?

16 MR. YANKEY: I guess once we identified  
17 it, as they came up, we started fixing it I guess where it  
18 would be substantially below grade. We also put a filter  
19 material on the back side so that it won't erode. So,  
20 basically, as this grade came up, we fixed things from the  
21 bottom up.

22 MR. MORGAN: So, what about any  
23 existing water that's in there and it was to freeze?  
24 Wouldn't that like break the concrete down or break a seal

1 between whatever you seal the cylinder with?

2 MR. YANKEY: I don't think that's a  
3 concern, it's so massive. I think all of these cells have  
4 water in them to one degree or another.

5 DR. HANEY: And that was the question I  
6 was asking earlier. You said they were solid concrete.

7 MR. YANKEY: Well, they are. I mean,  
8 you have to imagine that in the, what do you call it, the  
9 interstices of the interlocks and the annular space between  
10 the concrete and the steel, you're going to have water in  
11 there.

12 DR. HANEY: So, that's not in the cell  
13 itself?

14 MR. YANKEY: No.

15 DR. HANEY: Where is that water coming  
16 from?

17 MR. YANKEY: Upstream.

18 DR. HANEY: So, it's penetrated and  
19 that soil there is saturated on the bank.

20 MR. YANKEY: It's kind of hard to  
21 visualize this, but the water is actually just on the other  
22 side. If this is looking upstream, the pool is just right  
23 there.

24 DR. HANEY: I thought that was a ramp.

1 MR. YANKEY: Well, it is a ramp, but  
2 I'm trying to point just on the other side of that ramp is  
3 the pool.

4 DR. HANEY: Behind that crane there?

5 MR. YANKEY: Yes.

6 DR. HANEY: So, it's moving through the  
7 unconsolidated material then.

8 MR. YANKEY: It seeped through that  
9 bottom piece, yes.

10 MR. DAY: How deep is that ramp you  
11 have there where the crane is? How far down does it go?

12 MR. YANKEY: The ramp stops right here  
13 and then these cells are level---

14 DR. HANEY: Is it the same elevation as  
15 the cells?

16 MR. YANKEY: Yes, but this comes way  
17 up.

18 MR. DAY: Yes, but does it not go down  
19 into the structure?

20 MR. YANKEY: Yes, it does.

21 MR. DAY: Okay. That was my point.

22 How deep does it go?

23 MR. YANKEY: This ramp goes down and it  
24 ties into the cap which is roughly what, Jeff, fifteen foot,

1 twenty foot?

2 MR. DINGRANDO: Ten feet, I think.

3 MR. YANKEY: Then feet. And this one  
4 is a lot thicker, right?

5 MR. DINGRANDO: Yes. It does tie in  
6 structurally to that cap.

7 MR. MORGAN: How thick are the walls in  
8 the cylinder that has the soil in it?

9 MR. YANKEY: How thick are the walls?

10 MR. MORGAN: It's a hollow cylinder,  
11 right, with soil in the center?

12 MR. YANKEY: The sheetpiles are roughly  
13 yea thick all the way around and then it's filled with  
14 concrete.

15 DR. HANEY: Capped with concrete.

16 MR. YANKEY: And only these two are  
17 capped. The rest of them are solid.

18 MR. COLLINS: What about on the other  
19 side?

20 MR. YANKEY: They're solid all the way  
21 to the abutment.

22 MR. DAY: You go into rock on the other  
23 side of the river, don't you?

24 MR. YANKEY: That's right.

1 MR. DAY: So, the problem here is dirt.

2 MR. YANKEY: The fact that we had a  
3 soil abutment, that's right. So, we had to dig it.

4 MR. DAY: With your engineering  
5 expertise or that of your company, you don't think there's  
6 going to be a problem with seepage in the future. Is that  
7 what I'm hearing you say?

8 MR. YANKEY: That's correct.

9 MR. DAY: Can you guarantee that?

10 MR. YANKEY: I'll come out there and  
11 fix it myself. How about that?

12 MR. DAY: That worries me. We won't be  
13 here.

14 DR. HANEY: What is the hydraulic head  
15 there upstream to downstream?

16 MR. YANKEY: Seventeen feet.

17 DR. HANEY: So, you've got seventeen  
18 feet of head pushing against that soil.

19 MR. YANKEY: Once this is finished,  
20 most of this will be covered with soil.

21 DR. HANEY: Yeah, but it still gets  
22 saturated with water.

23 MR. YANKEY: Sure.

24 MR. WARE: But you're going to expose

1 all that sheetpiling all the way down to---

2 MR. YANKEY: Yeah. Actually, we did  
3 that prior and this is where they're coming up as they bring  
4 it to grade.

5 MR. WARE: So, the fabric and all has  
6 been put all the way down to its foundation there, the rock  
7 foundation?

8 MR. YANKEY: Correct.

9 DR. HANEY: Will your epoxy go all the  
10 way down?

11 MR. YANKEY: I think we're just going  
12 to try to epoxy what's exposed to air and water. I think  
13 what's below grade will be fine.

14 MR. REEDER: Greg, I should have warned  
15 you. You know that Dr. Haney is a geologist but so is Mr.  
16 Day. He was disguised later in life as a Postmaster but  
17 that's where his education is.

18 MR. DAY: Well, I'm still thinking  
19 about that ramp. Is it not a diversion for the water? I  
20 don't know the angle because the day that the group went down  
21 there, I was not able to attend. But I'm wondering if that  
22 ramp goes down deeply and is an angle back up river, should  
23 it not be used as a diversion to keep that water from seeping  
24 in there or not?

1 MR. YANKEY: It can't be. Basically,  
2 it doesn't penetrate deep enough to cut it up.

3 MR. DAY: That was the question I asked  
4 you a long while back is how deep does it go.

5 MR. YANKEY: Ten feet.

6 MR. COLLINS: Below the ground surface?

7 MR. YANKEY: Below the top of this  
8 grade.

9 CHAIRMAN CHRISTOPHER: The top of the  
10 cylinder?

11 MR. YANKEY: Yes.

12 MR. DAY: So, it won't have any effect  
13 on seepage then?

14 MR. YANKEY: That's correct. Primarily  
15 that ramp is there for access and to maintain if there were  
16 snags or whatever they get on the crest. It's so whoever can  
17 drive their truck down there and to fix it.

18 MR. DAY: She is right over here.

19 DR. HANEY: Is there much seepage  
20 coming out of the bedrock on this side that would get down,  
21 that goes into the soil and saturate the whole bank?

22 MR. YANKEY: This abutment, Dr. Haney,  
23 is deep soils. So, as far as in the bedrock, you know, we  
24 weren't able to characterize that.

1 DR. HANEY: No. I'm talking about  
2 bedrock. Do you see any groundwater seepage coming out along  
3 the bank there?

4 MR. YANKEY: No.

5 MR. REEDER: We got this concept from  
6 the Corps of Engineers, this cylinder concept or these  
7 cylinder dams sitting in front of the old dam from the Corps  
8 of Engineers at Dam No. 10.

9 MR. YANKEY: That's right, and they  
10 actually had a very similar design that we do here at 10.

11 MR. REEDER: And they also used the  
12 same thing on the Green River on two dams and we have  
13 designed Dam No. 3 the same way. Do you foresee that as a  
14 template for practically all replacements or do you see going  
15 back to the old solid concrete type?

16 MR. YANKEY: I'll be honest. I think  
17 it's cost effective to build these things as any other kind  
18 of structure and primarily because of avoiding those braced  
19 excavations, avoiding dewatering, doing everything basically  
20 from a floating plant without having to open up the river, so  
21 to speak, and do construction in the dry.

22 My guess is you pay a premium of an  
23 extra 50% if you want to do it in the dry rather than do it  
24 in this fashion. So, I think it probably is, yes, a template

1 for all future reconstructions. It just saves that much  
2 money.

3 MR. DAY: Is the type of soil on the  
4 end of that thing where the seepage is occurring, should that  
5 have been anticipated in your design?

6 MR. YANKEY: Well, we did anticipate  
7 that it would leak some but not as much as we saw in the  
8 field.

9 MR. DAY: Is it the type of soil that  
10 could be--I guess it would be too expensive to remove it.

11 MR. YANKEY: It would have been really  
12 expensive, yes.

13 MR. DAY: And put rock or something in  
14 there.

15 MR. YANKEY: The biggest thing that  
16 bothers me as the designer is when you get into a situation,  
17 the fact that we're going to have a change order is not that  
18 big a deal. The problem is not being able to plan for it.  
19 That's what bothers me the most is that we went in there and  
20 we thought it would perform adequately. It didn't. And, so,  
21 we said, what's it going to cost to fix it.

22 And the biggest thing as far as where I  
23 feel bad is not being able to tell you guys up front how much  
24 exactly it's going to cost or at least close.

1 MR. MORSE: So, what is your design  
2 then at Dam 3?

3 MR. YANKEY: We changed it. It's going  
4 to be one of those braced boxes just so that, one, you get  
5 the optimism in a bidding setting with the contractor. So,  
6 you'll probably get a better price than what I could have  
7 gotten in the change order here, and hopefully the  
8 competitive nature of that won't be so expensive.

9 But we would rather identify it up  
10 front and not be here trying to explain to you guys why we  
11 would like a change order for the contractor.

12 All right. Is that good?

13 DR. HANEY: We don't know.

14 CHAIRMAN CHRISTOPHER: We don't know  
15 yet, but it sounds like it's a good possibility of repair and  
16 it's taken care, we hope.

17 One question I guess that was going  
18 through my mind. We talked about a considerable amount of  
19 seepage. Can you quantify that?

20 MR. YANKEY: It's not that much, guys,  
21 if you look at it.

22 CHAIRMAN CHRISTOPHER: I guess that's  
23 the question I had. Will that increase?

24 MR. YANKEY: No. Actually, it should

1 stop. What we're talking about is leaks along these cells  
2 and honestly it's pretty modest. It might be a gallon per  
3 minute in total. I mean, it's almost nothing. But, again,  
4 it wasn't something that we anticipated, at least not to that  
5 degree.

6 CHAIRMAN CHRISTOPHER: That kind of  
7 helps me a little bit.

8 DR. HANEY: One more question. What is  
9 the composition of the soil in that cylinder? Is it  
10 limestone, #9 or something?

11 MR. YANKEY: No. It's predominantly  
12 clay material, sandy clay.

13 CHAIRMAN CHRISTOPHER: Thank you, Greg.  
14 Thank you, Board members, too, for your questions because we  
15 certainly hope that this isn't just a one-time thing. We  
16 hope to be building a lot of these here in the future. So,  
17 we will learn certainly from the first one and we will go on  
18 from there. So, keep your thoughts and let's keep those  
19 going, too.

20 MR. YANKEY: Thank you.

21 CHAIRMAN CHRISTOPHER: Thank you. And  
22 Jeff, thank you for being here, too.

23 Dam 3.

24 MR. REEDER: Dam No. 3 at Monterey,

1 about twenty miles from here. That's our second total  
2 replacement, actually our third but Dam No. 10 is still in a  
3 state of negotiations, stalemate or whatever with the federal  
4 government. It's still on the books.

5                   So, the replacement of Dam No. 3 at  
6 Monterey, of course, had to be done because of the condition  
7 it was in. And every day you wait on that one, you risk the  
8 thing falling in literally. It did once almost about five  
9 years ago. We had an emergency project to fix it on the Owen  
10 County side.

11                   And the real danger of it failing is  
12 twofold. One is that if it were to fail, it would lose all  
13 the hydraulic pressure on Dam No 4 which is all of  
14 Frankfort's water. If it failed and the pool dried up behind  
15 it or in front of -- if you're sitting at Jim's Seafood, it's  
16 in front of it -- it's to your right -- it wouldn't fall in  
17 tomorrow but it sure wouldn't help it. It's been sitting  
18 there since I think 1890. So, it's an old dam and it doesn't  
19 need to have anything happen to it that's out of the ordinary  
20 whatsoever.

21                   We have designed this dam through  
22 Stantec. It is fully permitted. It's ready to go basically  
23 and we told the world that it would be ready to go right at  
24 one year ago. So, here we are a year from that date. We

1 said early '08, and here we are in early '09 and we still  
2 don't have a contract on it, and I want to explain that.

3                   In the course of securing the permits,  
4 we had to get two permits, one from the State's Division of  
5 Water and another from the Corps of Engineers. We had no  
6 problem with the state permit.

7                   The problem came from the Corps of  
8 Engineers, and not the Corps, per se, but the U.S. Fish and  
9 Wildlife Service. Early in '08, in January or February, we  
10 received word that the U.S. Fish and Wildlife Service decided  
11 that we had a problem with securing a permitted area there  
12 because of the type of soil that was there that was conducive  
13 to running buffalo clover.

14                   MR. YANKEY: And also the Indiana bats  
15 running rampant down there.

16                   MR. REEDER: And Indiana bats roosted  
17 in the trees. So, the bottom line there is that that had to  
18 be cleaned up. And it turned out that there wasn't any  
19 running buffalo clover but the conditions were right for it  
20 to be there. So, that had to be rectified in their mind.

21                   That took until August of '08 to get  
22 that cleared up. Well, we got the permit in August of '08  
23 from the Corps.

24                   So, at that point in time, we had

1 another minor problem that delayed us a couple of more months  
2 and that was that the Office of Financial Management chose to  
3 fund this project from a different set of bonds.

4                   They chose to fund it through the  
5 general obligation bonds that the Administration had for  
6 other projects rather than our fee money, restricted fund  
7 project. And that's good because we don't have to raise  
8 rates for it. So, that took a couple of months to get the  
9 money in the bank, and they finally got the money in the bank  
10 I think in late November. And, so, at that point, we had the  
11 money.

12                   Until we had the money straightened  
13 out, we didn't push for the land acquisition as hard. Land  
14 acquisition certainly was on the plate of the Division of  
15 Real Properties in the Finance Cabinet. We had one property  
16 owner to deal with, and I think there's been a lack of  
17 misunderstanding or whatever. But, anyway, that is virtually  
18 done now. It will be out of the way soon. We had to do two  
19 or three maneuvers to straighten some things out and Finance  
20 has been very cooperative in trying to cooperate with us so  
21 we can do that.

22                   All design is complete now. Permits  
23 are in place. We do lack getting a couple of easements from  
24 Mr. Wingate who lives there, but that shouldn't be a real

1 problem.

2                   The problem has been -- and you never  
3 know how this stuff is calculated -- is that since it's bond  
4 money, tax-exempt bond money, whether it be from our  
5 restricted fund underwriting of it or General Fund either  
6 one, is a federal provision known as an arbitrage problem  
7 which basically says that these are tax-exempt bonds to the  
8 bondholders, but you get a penalty slapped on you if you  
9 don't spend 90% of it in two years.

10                   So, what has been worrying me, it's  
11 been in the bank since November 20th and we don't have a  
12 contract, and we've seen at 9 what can happen with just some  
13 bad weather, a slow contractor or whatever.

14                   What I don't understand about it, and  
15 Don and I have had a lot of talk about it, I'm not sure if,  
16 Don, we're so ignorant, but I don't think anybody really  
17 understands, but it's rolled into a series of other projects  
18 with the State.

19                   So, does that mean that 90% of all the  
20 money has got to be spent in two years, or does that mean  
21 that the delinquent guy gets the penalty or does the State  
22 get a penalty for all of it, or if it all averages out so  
23 that nobody gets a penalty, then, I guess that's all right,  
24 too.

1                   So, we don't really know the answer to  
2 those. There's probably twenty ways somebody could compute  
3 this stuff.

4                   But, anyway, the bottom line to it  
5 is -- I've been pretty animated about trying to get that  
6 thing to contract for the last few months -- is that when the  
7 Administration made a decision that it would come out of  
8 general obligation bonds, they did so with the assurance that  
9 it was a ready-to-go project. And as far as we were  
10 concerned, it was ready to go.

11                   They knew about the permit process, and  
12 really it wasn't an issue. That came about or when the  
13 consideration to fund it through general obligation bonds  
14 came about, the permit was in hand or it was virtually in  
15 hand. So, that wasn't a real problem.

16                   But I'm watching the clock tick here;  
17 and I think that not only myself but our reputation is  
18 somewhat on the line. As being a first-time borrower almost  
19 except for Dam 9, we're new in the business and we don't need  
20 to have any black mark put by our name if we go up there the  
21 next time they have something and say, yeah, we can do it and  
22 then they say, well, no, you didn't do this. And, so, that  
23 bothers me to some extent.

24                   But we're moving along on the thing,

1 and I just wanted to give a status of the overall view of the  
2 thing. Mr. Yankey and Mr. Dingrando over here from Stantec  
3 who designed it, and certainly Engineering over at Finance,  
4 they have been on top of their business and they have been on  
5 top of theirs at Stantec, and we ought to be okay.

6 Is that a fair assessment of it?

7 MR. YANKEY: Yes.

8 MR. REEDER: We should be okay as soon  
9 as we get that. Now, we've got to let a contract. That  
10 takes a couple of months to get a contract. That's just  
11 procedure. We want a fairly wide advertisement of that.

12 Finance advertises things -- well, I  
13 guess all government agencies do these days --  
14 electronically. And the real big dam-building firms that you  
15 find are generally in the Northwest or the Upper Midwest and  
16 up East. And my fear is a lot of those really good people  
17 may not get the word of this.

18 So, what we have done is to, with the  
19 help of Stantec, is to try to accumulate a list of people  
20 that could bid. It's not illegal to advertise in excess of  
21 what they put out on the electronic thing.

22 So, what we're going to do is notify  
23 anybody that's in the business that we know about, and you  
24 all can do the same thing if you know somebody that builds

1 these and say, look, you can look on a certain website and  
2 when that thing comes up, or back in time, it was supposed to  
3 come up, and if you're interested, come down here and get a  
4 set of plans and bid on it because the more people involved  
5 in it.

6                   Obviously, it's like this Mahan, they  
7 are great bridge builders. Now, I don't know how many pure  
8 dams they have built. There's a difference. And I'm not  
9 knocking them.

10                   I'm just saying, the last time we let  
11 bids out of here, we didn't have but about two serious  
12 bidders, and one of them was a pure dam builder from up in  
13 the Midwest someplace. I don't know who they were. They  
14 were considerably higher on the front end at least on the bid  
15 price than was the low bidder, Mahan, but they were a pure  
16 bridge builder.

17                   We might expect a higher price from  
18 some of those people that get competitive on it. Sometimes  
19 the low price isn't always the best one. I come out of the  
20 highway world, and over there, I've seen situations -- I  
21 can't say anything specific -- but I've seen situations where  
22 the change orders were prepared before anybody got the bid  
23 let. So, that's the kind of thing we want to try to avoid.

24                   DR. HANEY: Are you advertising in

1 trade journals?

2 MR. REEDER: Yes, sir, Engineering  
3 News, yes, sir, absolutely, or any other construction journal  
4 like that, and there are several of those around.

5 DR. HANEY: Do the dam builders have  
6 their own journal and such?

7 MR. BROWN KINLOCH: There is a dam-  
8 building magazine that I get.

9 MR. REEDER: Let me know what that  
10 is, but that's where we are. If anybody has any questions  
11 about Dam No. 3. I just wanted to bring you up to date on  
12 where we were.

13 CHAIRMAN CHRISTOPHER: Thank you,  
14 Steve.

15 MR. WARE: So, Steve, the acquisition  
16 of the easement from the Wingate property is imminent now?  
17 This \$10,000 differential has settled that?

18 MR. REEDER: Yes, sir. He's agreed to  
19 all terms. He's had some relatively significant health  
20 problems and it's a matter of getting the Finance negotiators  
21 and the time to sit down with him.

22 MR. WARE: So, as soon as that's out of  
23 the way, you all anticipate letting the bids?

24 MR. REEDER: Yes, sir.

1 MR. WARE: So, March-ish, maybe?

2 MR. REEDER: To commence the project  
3 and commence it hopefully in March, I would think. Now, the  
4 process takes five or six weeks to get it done, but I would  
5 anticipate something like that.

6 (MR. HANEY LEAVES)

7 CHAIRMAN CHRISTOPHER: Any other  
8 questions for Steve on either one of those reports?

9 All right. No. 8, consideration of our  
10 public officials' liability policy. I believe you have  
11 copies of those.

12 MR. REEDER: In your packet, this is  
13 our annual policy for Board members and this is a policy for  
14 liability issues that might occur. A policy of this type  
15 goes beyond my time with the Authority, but we've had it for  
16 a million bucks a year, and they don't cover a judgment.  
17 They cover legal expenses, and that's what they are for.

18 Of course, that's where most of these  
19 kind of lawsuits are going to wind up. If somebody sues the  
20 Board, then, the legal defense of that is what that's  
21 supposed to cover. It doesn't cover the judgment.

22 In fact, it's illegal to cover a  
23 judgment anyway under state law. The state employees'  
24 defense act is very much like that and that's what this is

1 designed to do. It's kind of a variation of that what you  
2 have here, that the Board would be defended. It doesn't  
3 include the staff or myself but it does include the Board.

4                   The individual from the Insurance  
5 Cabinet couldn't be here today, but he was very nice to  
6 prepare all these estimates and prices for us. You will see  
7 the same insurance agent the State uses every year, the  
8 insurance company from Fort Thomas, Kentucky.

9                   The company that the Insurance folks  
10 recommended is a company called Darwin. It's a little bit  
11 cheaper and there's two options in there, a \$1 million option  
12 and a \$2 million option. The \$1 million option is \$2,689 and  
13 the other option is \$4,225. We typically paid the last two  
14 years \$5,177. So, this other company is a little bit  
15 cheaper.

16                   They recommend either of those,  
17 whichever you choose. They want to give you a choice, if you  
18 want \$1 million worth of protection or \$2 million as far as  
19 lawyers are concerned.

20                   CHAIRMAN CHRISTOPHER: Mr. Miller,  
21 you're somewhat the insurance man there, if I understand  
22 things right.

23                   MR. MILLER: A million dollars ought to  
24 be enough. If it wasn't for roughly \$1,400, that would be

1 pretty cheap to have \$1 million worth of legal expense.

2 CHAIRMAN CHRISTOPHER: When you're  
3 looking at an additional \$1 million and what it costs---

4 MR. MILLER: If you're asking for a  
5 recommendation, I would recommend the \$2 million.

6 MR. REEDER: Recommend the two?

7 MR. MILLER: Yes, with the new company.

8 MR. WARE: Is that total liability for  
9 the entire Board? If a lawsuit occurs, is the entire Board  
10 sued? Is the Chairman sued? How is that generally handled?

11 MR. REEDER: The way it typically  
12 happens is they just sue the Board and name the Chairman. It  
13 would probably name everybody in their official capacity.

14 MR. MILLER: But to answer your  
15 question, it's a total of \$2 million coverage.

16 MR. DAY: If the Mayor moves it, I will  
17 second it and go with the \$4,225.29.

18 CHAIRMAN CHRISTOPHER: We've got a  
19 motion and a second. And since I'm Chairman of this, I'm  
20 going to move this one right along. Any discussion? All in  
21 favor, signify by saying aye. Opposed the same way. The  
22 ayes do have that one. A million dollars seems like a lot of  
23 money but in today's world, it can go by very quickly.

24 How about our lease renewal for High

1 Bridge Park?

2 MR. REEDER: This is the annual lease  
3 renewal. As you all know, we developed it basically like we  
4 did the Frankfort Capital View Park except in that instance  
5 we own the property and we lease it every year for no  
6 consideration to Jessamine County who is responsible for  
7 insuring it, keeping it up. It's a very nice tourist  
8 attraction down there that some day we may want to consider  
9 giving it to them, but right now we are just leasing it every  
10 year for nothing.

11 It's something that all parties agree  
12 it will renew automatically except we have to sign a new  
13 lease. Both parties have signed the lease. The Finance  
14 Cabinet has not. It's in their paperwork process to sign,  
15 but we need approval on it.

16 MR. COLLINS: So moved, Mr. Chairman.

17 CHAIRMAN CHRISTOPHER: Thank you, sir.

18 A second?

19 MR. MORGAN: Second.

20 CHAIRMAN CHRISTOPHER: All in favor,  
21 signify by saying aye. Opposed likewise.

22 MR. WARE: That's a nice facility. I  
23 don't know how many Board members have ever been there.

24 CHAIRMAN CHRISTOPHER: I was going to

1 say, if you've not been there, go check that out.

2 MR. WARE: Randall, we might need to  
3 have a meeting there when the weather breaks.

4 CHAIRMAN CHRISTOPHER: That would be a  
5 great place because that is a neat place. Thank you. It  
6 shows what can happen on the river -- good things.

7 Coal slurry ponds in the Kentucky River  
8 Basin. Mr. Reeder, what do you have?

9 MR. REEDER: Let me explain why it's on  
10 here. There's been significant news articles lately because  
11 of the failure of the TVA dam near Knoxville, and I  
12 understand the State of Tennessee, or, not the State of  
13 Tennessee but the TVA is going to have a billion dollars  
14 worth of cleanup possibly in the aftermath of this thing.

15 Throughout the Kentucky River Basin,  
16 throughout Kentucky but on the Kentucky River Basin  
17 particularly, there are two kinds of impoundments. There are  
18 coal slurry impoundments that are scattered around different  
19 places where they wash coal and they hold this waste in  
20 ponds.

21 And then there's the second type which  
22 is a coal ash facility and that generally occurs at a power  
23 plant where you have bottom ash which is a direct product of  
24 being burned and some flash in the chimneys of these things.

1 That usually has some industrial application afterwards, but  
2 it's put in a pond and watered down prior to any use.

3 The failure of either one of them could  
4 create a problem. So, through Valerie's facilitation in the  
5 Natural Resources Cabinet, I thought it would be good if we  
6 had staff from Natural Resources or Energy and Environment  
7 Cabinet it's called now to identify where these things are  
8 and how they are permitted to begin with.

9 And then if they are permitted, once  
10 permitted, how often are they inspected and in what manner  
11 and what kind of security do the citizens have along the  
12 river.

13 We had one in Martin County -- it's  
14 outside of our basin -- had one in Martin County on the Tug  
15 Fork of the Big Sandy River in 2000, and I think Bob Ware was  
16 with the Department at that time and probably knows quite a  
17 bit about that.

18 The situation near Knoxville was an ash  
19 pond, but they can both have sort of the same effect. So,  
20 these gentlemen are going to show us where these things are  
21 located and tell us a little bit about it.

22 CHAIRMAN CHRISTOPHER: Valerie, thank  
23 you for taking care of that.

24 MS. HUDSON: You're welcome.

1 MR. GARY GILLIAM: Good afternoon,  
2 ladies and gentlemen. I'm Gary Gilliam. I'm with DNR, as is  
3 Jeff Hall. I work with the Permitting Branch at DNR. Jeff  
4 is with the Division of Mine Reclamation and Enforcement.

5 This has just been put together rather  
6 quickly. It is an effort to give you an overview of what we  
7 look at, how we inspect it and what we have out there.

8 I would preface this with the  
9 acknowledgement that slurry impoundments are something of a  
10 different beast. They are not constructed like much of  
11 anything out there.

12 As such, I didn't want to belabor that  
13 in the slide presentation. If at any point, you have any  
14 questions about what are the differences, how are these  
15 things constructed, please feel free to just stop me. This  
16 is very impromptu. This is more of a question-and-answer  
17 session than it is a formal presentation.

18 Again, we're going to look at a little  
19 bit of an overview of the impoundments that we have out  
20 there. We're going to look at some of the areas that we  
21 consider in the design and permitting of these, the sorts of  
22 things that we track once they go into operation and the  
23 nature of the inspection and the frequency of the inspection.

24 This is the overall state, as you can

1 well see. The red dots are our understanding of the location  
2 of the ash ponds which Mr. Wells will be talking about in  
3 considerably more detail later. The black dots are slurry  
4 impoundments. As you can see, we've got them stretching from  
5 out here all the way to the far eastern part of the state.

6 We have a total of 119 MSHA class  
7 impoundments.

8 MR. COLLINS: Are most of them in Pike  
9 County?

10 MR. GILLIAM: Either Pike County or  
11 Perry County has the most. It's very close between the two,  
12 and I'm sure you would rather it have been Pike County.

13 I want to qualify this first. I think  
14 this is a representation of all 119 of them. What I did in  
15 breaking this down is I isolated MSHA class impoundments. I  
16 did this for a couple of reasons.

17 We will get proposal for slurry storage  
18 in very small vessels, usually excavated vessels, usually  
19 very much temporary. They put it in, they let it dewater and  
20 then take it out and mix it in a dry fill. I did not intend  
21 to capture or locate all of those.

22 The MSHA class are of a certain size.  
23 And, frankly, if you permit one that's big enough to classify  
24 as an MSHA structure, the only way you're going to get any

1 kind of realistic return on your investment is to make it as  
2 big as it is.

3                                 So, what I'm dealing with here are the  
4 big ones, the ones that give everybody heartburn. I refer to  
5 them as MSHA class because we have regs, which I'll get into  
6 in a minute, that kick in at a certain point where we have  
7 joint jurisdiction, much to the chagrin of the industry who  
8 feels like they don't know--every time they turn around,  
9 they've got a different reviewer asking them different  
10 questions.

11                                 I don't think it's accidental that they  
12 have that joint oversight. I think it's very much  
13 intentional. We have our own internal peer review. We also  
14 have peer review with the federal agency on the same  
15 impoundment.

16                                 That slide did not come out nearly as  
17 well as I had hoped that it would. Can you all see this  
18 outline here, this pale blue outline? That is, in fact, the  
19 Kentucky River watershed. I just wanted to kind of come in a  
20 little bit more closely, and I will be zooming in in a moment  
21 on the headwaters.

22                                 As you can see, once you get up past  
23 the headwaters, we run out of the coalfields. We have no  
24 more slurry impoundments. There are a handful of ash ponds

1 in the lower reaches. And, again, Mr. Wells will be  
2 addressing those. As I understand, most of those are fairly  
3 small.

4                   So, let's zoom in a little tighter.  
5 The same slide as before with one conspicuous addition and  
6 that would be this green box here. We have one application  
7 pending right now to site a new slurry impoundment in the  
8 Kentucky River watershed.

9                   I wanted to make sure that you all were  
10 aware of that. It's in Perry County. If you all need any  
11 information regarding that, you can feel free to contact me.

12       It's Application No. 8979007 -- very early stages of  
13 technical review.

14                   It is not a situation where we're close  
15 to going to issuance or construction. I talked with the  
16 reviewer the other day. He has not completed his first  
17 technical review. He has several, several pages of comments.

18       It's not to say it's a bad proposal but we look at them very  
19 closely.

20                   Now, zoom in a little more. Here you  
21 go. Now we're in the headwaters. You can see the different  
22 counties as they zoom about, and you can see that most of  
23 them are in the extreme headwaters. You have a few that get  
24 a little closer to the river.

1 Perry County is our biggest populator  
2 here. They do range from Estill County -- and you can barely  
3 see these guys. There are some relatively small ones in  
4 Estill County. Those are the only ones we have that are  
5 actually outside of the coalfields.

6 That was an intent. Can you refresh my  
7 memory? I know the company that has it now. He was trying  
8 to do a loading facility in Estill County I think primarily  
9 to service the Lexington area. Basically got everything  
10 constructed. It didn't work out and we are looking into  
11 enacting some closure plans.

12 Actually, they're looking around trying  
13 to find some people who may want to pick up the property for  
14 some other usage because there's very little slurry actually  
15 deposited in those, but the ponds are out there and we need  
16 to either have them removed or taken over by somebody else  
17 entirely.

18 There are 27 of these ponds, MSHA class  
19 slurry impoundments. There are 27 of them in the Kentucky  
20 River watershed. I did a little tabulation of my own. It  
21 looks like about 15 of those are active. One of them has  
22 been approved and not yet constructed. It was actually  
23 approved several, several years ago, probably never will be  
24 constructed.

1                   On two of them, we have what is known  
2 as re-mining going on. That's where it has essentially  
3 exhausted its capacity as an impoundment and they are  
4 proposing to literally take the coal fines and the coarse  
5 refuse out of the impoundment and rewash it.

6                   In a lot of instances, some of these  
7 things date back twenty, thirty years. This is not at all  
8 unusual for us to be dealing with an impoundment that was  
9 started in the late sixties or early seventies.

10                  The preparation technology is such now  
11 that they can recover out of these older ones a significant  
12 volume of combustible material. So, we do have two of them  
13 in this watershed that are actually being re-mined. They are  
14 being made smaller right now.

15                  We have one of them for which closure  
16 operations are underway. And if I recall correctly, it is a  
17 closure plan that we have not yet approved. We have two of  
18 those 27 that have been closed completely and they are no  
19 longer impounding structures.

20                  For our purposes, we keep track of 27  
21 because we have 27 for which we hold bond for which we have  
22 liability. Only about 15 of those are active impoundments  
23 that are impounding a great deal of water.

24                  And there's the tabulation of them. I

1 will be happy to linger on this slide so that you can read  
2 line by line and get the latitudes and longitudes and so  
3 forth. I'm pretty certain that you all have no interest  
4 whatsoever in doing that.

5                                 During the design process, these are  
6 permitted through us as any surface disturbance associated  
7 with coal. As a result, we're going to look at property  
8 ownership. We're going to look at critical resources in the  
9 area, the entire gamut of areas that are addressed by SMCRA.

10                                In terms of the technical, the  
11 engineering review, by far, the majority of our efforts are  
12 devoted to the structural stability of the impoundment, the  
13 hydraulics of the impoundment and the potential for release  
14 into underground mines.

15                                I think you mentioned Martin County  
16 earlier. That caused something of a paradigm shift in the  
17 regulatory agencies in terms of how much detail we looked at  
18 underground.

19                                For structural ability and hydraulics,  
20 we address this for each stage of construction. This is  
21 where we get into some of the differences between a municipal  
22 dam that is to be built and a slurry impoundment.

23                                These are waste storage facilities.  
24 The preparation plant is washing it. It is washing the loose

1 rock from the coal and it's also flushing coal fines.

2                   The rock itself is used for  
3 construction of the dam. The slurry is pumped back in behind  
4 it. It's allowed to settle usually at the back end of the  
5 impoundment as far as they can get from the inflow point.  
6 They will literally pump the clarified water off and run it  
7 back through the plant again to try to maintain as much as a  
8 closed system as they can.

9                   The upshot of this is these things may  
10 very well be under construction for twenty or twenty-five  
11 years. As a general rule, we do not approve a construction  
12 plan for twenty or twenty-five years.

13                   What we will do is approve a  
14 construction plan for what we would refer to as the next  
15 stage. It might be a ten-foot or a fifteen-foot or a thirty-  
16 foot increase. We will test that for structural stability  
17 upstream and downstream, seismic, static conditions.

18                   We will test the spillway to make sure  
19 it can pass the design storm, which for our purposes is a  
20 six-hour probable maximum precipitation. Somewhere in the  
21 neighborhood of twenty-six inches of rain in six hours is  
22 what they are designed to handle.

23                   We will also canvas our own resources  
24 as well as what we ask of the applicant to locate underground

1 mines. The small print on here notes that in the aftermath  
2 of Martin County, we actually revisited all of these and did  
3 site visits, did investigations.

4                   Ultimately, since that time, about 40  
5 of them we required upgrades to further prevent the  
6 possibility of any kind of a release into underground works.  
7 I think the measures listed are barriers, enhanced  
8 dewatering. In some cases, we grouted underground voids to  
9 prevent the possibility of subsidence.

10                   Some of them we've actually converted  
11 to non-impounding facilities, and some of them we just simply  
12 closed. They're too close. So, we've asked for a closure  
13 plan and we have affected closure.

14                   As I noted, most of the time, we only  
15 approve a few stages which means they are almost constantly  
16 under review either for what is going on on the ground right  
17 now or what they are anticipating doing in the next few  
18 years. These things are almost constantly under review. It  
19 really keeps us scrambling to stay up with the workload as  
20 it's put in.

21                   I mentioned earlier we have joint  
22 jurisdiction with Mine Safety and Health Administration. I  
23 wanted to drop this in because I have to by the nature of the  
24 beast cross reference with them from time to time.

1                   This is an excerpt from our  
2 regulations. Before we can approve an impoundment design, we  
3 have to have a complete copy of what was submitted to MSHA, a  
4 complete copy of all correspondence with that agency, the  
5 approval from that agency, and a notarized statement  
6 attesting to the fact that this is a complete copy of the  
7 record.

8                   In other words, before we can even  
9 contemplate issuance, we have to know that Mine Safety and  
10 Health has signed off on the plan.

11                   We will generally in the interest of  
12 time allow concurrent review. I would want to point out,  
13 though, this is a requirement for a DNR permit but it's not  
14 absolute. We routinely ask for significantly more than MSHA  
15 does.

16                   We have a somewhat different sphere of  
17 influence principally in the fact that we have much more  
18 stringent environmental concerns. They are a safety and  
19 health agency. We are an environmental agency.

20                   We will routinely ask for more in the  
21 way of monitoring, and very often we will ask for enhanced  
22 designs. And on a few occasions, I've actually had to send  
23 people back to MSHA. By the time they modified the plan to  
24 suit us, it was so different from what MSHA had approved,

1 they had to go back and seek approval from that agency.

2                                   Monitoring and inspection. Every one  
3 of the monitoring plans is set up on an individual basis.  
4 What I have attempted to capture are those that are so common  
5 as to say basically you would find these on every  
6 impoundment.

7                                   Certainly when they are inspected, the  
8 first thing our people are looking for is are they  
9 constructing this in accordance with the plan that was  
10 approved by the Cabinet.

11                                   If they are not, even if it's a good  
12 plan, even if it's a good method of operation, they are still  
13 going to be written a violation and they're going to be asked  
14 to revise their plan so that our people in the field have an  
15 approved plan to review.

16                                   They will be walking the face looking  
17 for slides, looking for vegetation, either stressed  
18 vegetation or in some instances a spot where the vegetation  
19 is better than surrounding areas which might be indicative of  
20 a seep that had not been otherwise acknowledged.

21                                   Every one of these things have a series  
22 of piezometers to measure internal water levels. Those are  
23 incorporated into the design. We have thresholds that they  
24 cannot exceed. And if they do exceed, then, things get

1 intense. We will go back to the design phase and we will  
2 start doing some forensic engineering to figure out why we  
3 have elevated water levels. That frankly very rarely happens  
4 these days. These things are very well-designed.

5                   We inspect the french drains,  
6 underdrains. Again, these are waste structures. It is not  
7 in the best interest of the coal operator to store an  
8 enormous amount of water. Neither is it in our best interest  
9 to allow them to do so because we have a confluence of  
10 interests here.

11                   They are getting better and better  
12 about developing dewatering systems so that what they are  
13 storing behind the dam is more and more just fine soils with  
14 less water. It reduces the risk of breakthrough, reduces the  
15 risk of a release.

16                   But, again, they use a lot of french  
17 drains, underdrains, wick drains and so forth. So, those are  
18 part of the inspection process to make sure they are working  
19 properly. And, of course, underground mines, we put up  
20 subsidence monitors. We will have people monitoring  
21 discharge inflows from those mines, a variety of things  
22 there.

23                   Those are the common issues. I  
24 guarantee you I could go through our files and come up with

1 twice that where on a site-specific basis we have asked for  
2 this, that or the other.

3 The inspection frequency---

4 MR. WARE: Gary, what about periodic  
5 characterization of the organic and inorganic chemical  
6 characterization of sediments and water?

7 MR. GILLIAM: With what we are dealing  
8 with, we really don't have that problem. What we are  
9 basically dealing with are fine clays.

10 Our biggest problem is the fact that  
11 they are so fine that they remain in suspension. We have  
12 very, very little in the way, and I think this is borne  
13 out -- do you know if KPDES has any other standards for these  
14 other than the KPDES standards for mining?

15 MR. WELLS: TSS, I think.

16 MR. GILLIAM: Suspended solids and so  
17 forth.

18 MR. WARE: Of course, that was a  
19 concern when they had the big Massey spill. The companies  
20 are using polymers and coagulation aids and all and some of  
21 that material was analyzed. And of course, with the  
22 sediments particularly, the coal fines, you may have an  
23 inordinate amount of metals associated with that.

24 MR. GILLIAM: I will tell you, that is

1 not my area of expertise. I am much more attuned to the  
2 geology and the engineering dynamics.

3                   What I can tell you, though, one of the  
4 things that we have investigated repeatedly working with both  
5 MSHA and OSM is tracking the potential for seepage from the  
6 impoundment into underground works by trying to address some  
7 of those polymers.

8                   We cannot get them showing up in the  
9 adjacent underground mines to such a degree that we can say,  
10 yes, this came from the impoundment. We have tried that and  
11 we have not had much success which is a good thing because it  
12 suggested that we're not getting a lot of those things  
13 migrating through.

14                   MR. WARE: I will say that the impact  
15 on the Tug Fork was more from just the smothering effect that  
16 the fines resulted in, but there was some biological toxicity  
17 associated with it.

18                   MR. GILLIAM: That was certainly a  
19 concern. I'll be honest with you. I know there was a lot of  
20 testing. I don't know what the conclusion was. Our concern  
21 is the smothering effect, the sheer volume of clay type  
22 soils, especially saturated clay soils.

23                   And what we will use for the monitoring  
24 is primarily to make sure that we do not have seepage zones

1 that could lead to a catastrophic release.

2                   Inspection frequency -- it's frequent.

3     A federal requirement which we have incorporated into our  
4 permitting actions, every owner of one of these facilities  
5 has to utilize the services of an approved impoundment  
6 inspector to do a weekly inspection. They are not to be more  
7 than seven days apart.

8                   They literally start at the downstream  
9 toe and go through the entire thing. They check all the  
10 monitoring, all the piezometers, all the gauges.

11                   They are to file a weekly report.  
12 These are not forwarded to us in every case. What we do is  
13 we set a reportable threshold.

14                   For instance, if the piezometers are to  
15 be below an elevation of 1500 and they go out there and they  
16 have a 1501, they have to notify us as soon as possible. If  
17 there is an increase in discharges from one of the drains or  
18 from one of the adjacent mines, they are obligated to notify  
19 us. They are very good about this.

20                   I think I probably get two or three  
21 calls a week where there is some kind of an abnormality or an  
22 aberration in the monitoring. Ninety-nine percent of the  
23 time, an investigation finds that we had some faulty  
24 measurement. We had a faulty piezometer or whatever, but we

1 investigate every time that happens. That is what we require  
2 of the operators themselves.

3                   Our inspectors inspect these things on  
4 a monthly basis. MSHA's engineers do a full inspection on a  
5 quarterly basis. We require an annual certification that  
6 details all activity in the past year, all construction, all  
7 monitoring results, everything that went on out there.

8                   We require that that be compiled and  
9 submitted on an annual basis. It goes to our regional  
10 offices and our office in Frankfort, and our regional  
11 engineers do an annual inspection as well.

12                   Now, that's the minimum number of  
13 inspections, and it came out to be getting close to 100 by  
14 the time you tabulate all those, and probably around 75  
15 minimum per year on each facility.

16                   The other inspections as needed, again,  
17 if we get an unexpected increase in flow from an adjacent  
18 deep mine, we will be out there and we may inspect it every  
19 day for four or five days until we get it resolved.

20                   The minimum frequency, we have put  
21 people monitoring these things on -- Jeff, refresh my memory.

22     I can recall some of them that were put on four-hour  
23 schedules where they would do an inspection every four hours  
24 because there was some question as to what was going on. We

1 don't want a situation to get out of hand. So, we would tell  
2 them to tabulate data on a four-hour interval.

3 We've got several right now that are on  
4 daily inspections. And usually in a case like that, our  
5 people will be up there three or four days at least to  
6 corroborate what the industry said.

7 So, that's kind of the overview.  
8 Again, I wasn't sure exactly how much to go into or how much  
9 you all wanted to know. I thought we would get this far and  
10 then see if anybody had any questions.

11 MR. MORSE: With all these frequent  
12 inspections and planning reviews, what happened in the TVA  
13 case? Did the piezometer stop piezometing?

14 MR. GILLIAM: I'll be honest with you.  
15 I really can't say what happened there because I'm not  
16 familiar with that. I did do a little bit of investigation.

17 Not only am I not with that agency who  
18 is doing the investigation, I am not with an agency that even  
19 has oversight. So, my inquiries have been politely responded  
20 to with we'll get back to you.

21 MR. MORSE: What happened in the Massey  
22 case a few years ago?

23 MR. GILLIAM: The Massey case?

24 MR. MORSE: What caused that

1 impoundment to fail?

2 MR. WARE: Just a grand failure and  
3 they allowed the underground--there were old undergrounds  
4 work too proximate to the impoundment.

5 MR. GILLIAM: There's a variety of  
6 things. Let me throw my caveat out here first. I was not  
7 with the Cabinet then. I was not part of that investigation.  
8 I was actually recruited to the Cabinet in the aftermath of  
9 that because they were looking for people who had some  
10 experience to come to work for the State.

11 My understanding is it was kind of the  
12 sum of a number of smaller errors. And when they all fell  
13 into line, the worst that could happen. It was believed that  
14 the underground works were further away than they, in fact,  
15 were.

16 There was a barrier to be constructed.  
17 The barrier was constructed but it wasn't properly sealed as  
18 it was intended. They were supposed to keep the water level  
19 lower than they were keeping it.

20 MR. WARE: The structure got too big.

21 MR. GILLIAM: And it got too big and it  
22 created a piping zone. And there's dispute to this day as to  
23 whether or not the weekly monitoring at the adjacent  
24 underground mine was sufficient to identify a gradual

1 increase.

2 I wish I had brought a copy because  
3 we've got several of these underground mines that we map or  
4 that we track the discharges from. They fluctuate. They're  
5 not steady. During rainfall periods, they will go up. During  
6 drought periods, they will go down. When we map this, it's  
7 up and down.

8 What we do now is trend lines. And if  
9 we are very concerned about an impoundment, we will even do a  
10 regression analysis.

11 We had one impoundment at one point  
12 about three years ago, I recall. We were testing our model.  
13 We had a rainfall event on a Monday. We predicted what the  
14 peak flow from the underground mine was going to be on  
15 Thursday, I think we predicted one o'clock. Sometime  
16 Thursday afternoon, they went out there and looked and we  
17 were within a few cfs of being on the mark. And that's just  
18 from the amount of data that we compiled.

19 So, we put a lot more emphasis on that  
20 now because, in retrospect, we can see how important it was  
21 to track that.

22 We actually track rainfall and flows  
23 from the adjacent mines because with a progressive piping  
24 situation, if the impoundment starts leaking, as it leaks, it

1 will open a hole and that will cause it to leak faster. And  
2 eventually if the hole gets big enough, you have a  
3 catastrophic release.

4 MR. WARE: That's the Martin County  
5 right there, isn't it? It looks like it.

6 MR. GILLIAM: Actually, that isn't. It  
7 is an impoundment in Martin County, but it is not the Martin  
8 County.

9 MR. WARE: It looked like the one that  
10 blew out nine years ago. What about post-closure monitoring  
11 requirements now? Are there ample protections to see that  
12 progressive mining doesn't progress to the area that might be  
13 affected by an old---

14 MR. GILLIAM: What we do now, we have  
15 all of these mapped in our database. We require the industry  
16 to show us where there is one. We check pretty much every  
17 application.

18 And, again, I don't know how much  
19 information you all want. In our internal tracking systems,  
20 anything having to do with fine coal refuse is put on a  
21 separate list and handled separately. We do our own internal  
22 peer review. We will brief the Director before it goes to  
23 issuance to let him know what we have investigated and what  
24 our findings were before it's ever sent up to him for a

1 signature.

2                   Our list is about eighty right now.  
3 Probably ten of those are permits where they are proposing  
4 mining somewhere near an active or an abandoned impoundment.

5     So, we treat that with exactly the same significance that we  
6 would treat an impounding permit, and sometimes we just  
7 frankly say, no, you're getting too close. Stop.

8                   MR. WARE: Something I'm sure several  
9 of the Board members will be interested in is what provisions  
10 currently exist for prompt downstream notification for any  
11 releases.

12                   MR. GILLIAM: The question of the hour.  
13 Have you been following the news by any chance? At present,  
14 the law says, and we are, as is the industry we regulate, we  
15 are bound by the law. SMCRA, and it is reproduced in our  
16 reg, says that if a hazardous situation develops, an  
17 emergency action plan will be formulated.

18                   We candidly feel like that's a little  
19 late in the game to be thinking. Most of our regulated  
20 community has an emergency action plan on file. They do not  
21 often include that to us as part of the permitting action  
22 because they frankly, if it isn't required, why subject  
23 themselves to the scrutiny. They will keep it on file. And  
24 I've had them come across and say would you like to see a

1 copy. Most of them are pretty good. They've got liability  
2 issues to deal with.

3                   We have been on record for years as  
4 endorsing the adoption of an emergency action plan  
5 requirement. I understand there are resolutions now in both  
6 the House and Senate to do just that.

7                   I think they have had similar  
8 resolutions for the last two or three years, and I have never  
9 been able to ascertain exactly what happened, but our agency  
10 has gone on record as feeling as though it's a good idea. We  
11 just simply can't require somebody to do something that is  
12 beyond the law. We ask them routinely. We will ask them to  
13 go ahead and give us one.

14                   And we have on a few occasions, again,  
15 we will get an anomaly in some of the monitoring. If we feel  
16 like it's fairly serious, send us an emergency action plan.  
17 So, we are very cognizant of it.

18                   We are optimistic that sometime in the  
19 near future, we will be able to require that as a part of the  
20 permitting process, and we've even had discussions as to  
21 manpower, how would we coordinate with the county officials  
22 and so forth. But until the regulations come down, we're  
23 doing--we're doing all that we can under the regs and asking  
24 for more than we can.

1                   CHAIRMAN CHRISTOPHER: Could we ask you  
2 not to leave just yet and can we put this guy on because we  
3 might have questions that one or the other could answer.

4                   MR. GILLIAM: Well, I'm sorry Gary and  
5 I don't talk to each other. We are a different agency  
6 altogether.

7                   MR. WELLS: I'm Gary Wells, the other  
8 Gary, and we regulate dams in the state, water dams you might  
9 call them, and we have over 1,000 dams in the State of  
10 Kentucky. And of those 1,000 dams, twenty of them are what's  
11 considered ash pond dams.

12                   Now, we classify them as low, moderate  
13 and high hazard dams. As you can see throughout the state,  
14 this is all twenty ash ponds that you see.

15                   Within the Kentucky River Basin, we  
16 have even less. We only have four ash pond dams in the river  
17 basin. We have two low hazards and we have two high hazard  
18 dams.

19                   Two of the four are right off the  
20 Kentucky River. And I'll show the locations, the mile point,  
21 where they are to the lock and dams that are the closest ones  
22 to it, as well as the other two are down Dix River, a stem  
23 off the Kentucky River about three miles from the Kentucky  
24 River. And I'll show you where the lock and dam that's

1 closest to as well because you're probably pretty familiar  
2 with all the locks and dams on the Kentucky River. If not, I  
3 will give you the river mile.

4 We were asked to come because of the  
5 interest in ash ponds, and, off course, of what happened in  
6 Tennessee. As an engineer, we were concerned about that,  
7 too.

8 Much of what happened there and why it  
9 failed, of course, the news has reported some things, but  
10 what I've heard so far is the news reports show that ash was  
11 built up higher than the impoundment itself and it had a  
12 layer of drainage system that didn't work properly. And the  
13 news reported that water was added on top of each of the  
14 layer; and on the last layer, it finally collapsed causing a  
15 failure of the embankment.

16 The ash ponds, we'll see what  
17 conditions they are in Kentucky, how we regulate them and how  
18 we inspect them and, as the slides will show, how dam safety  
19 works in Kentucky.

20 The four ash ponds, these are the names  
21 of them. There's KU. Three of them by KU and one by East  
22 Kentucky Power. As mentioned, the two low hazards and the  
23 two high hazards. Now, the two high hazards are also  
24 expanding, too.

1                   The No. 4 here, what is called the aux  
2 pond, is a new dam that was put in last year. That's the  
3 newest of the ash basins in the Kentucky River Basin. That  
4 one finished construction in July of last year.

5                   Now, the fly ash is now in the process  
6 there at E.W. Brown Station of going to the aux pond, No. 4.  
7 They're going to take the main pond, raise that a vertical  
8 projection on the main pond until when it's finished  
9 construction in 2011. They will then put the processes back  
10 over to the main pond and raise the aux pond, and they want  
11 to get a 20-life of storage in that pond.

12                   So, that's why the proposed starting  
13 dates is once they are finally constructed, it will have this  
14 height and this capacity inside the pond.

15                   What this slide is to show is the  
16 difference between coal ash and coal slurry because coal was  
17 burned and what's left over after the combustion of the coal  
18 byproduct is a real fine soil particle. It's fly ash.

19                   Now, that particle itself could have  
20 high concentrations, which was already spoken of, was the  
21 metals that are in it, you will have arsenic, you will have  
22 mercury in those metals. It's a real fine particle with  
23 coarse sand. It's real dry. So, they add water to it which  
24 is then discharged into the basin as coal slurry is.

1                   Now, coal slurry comes right from the  
2 plant. They will take the coal. They will break it down.  
3 They wash it and then whatever the remains left from washing  
4 the coal, that remain is then discharged into the basin.  
5 That's the two differences. One is combusted and one is  
6 washed.

7                   This is all basically referenced in the  
8 Reclamation and Environmental Safety Act of 2009. And the  
9 U.S. produces 129 million tons of coal ash each year with a  
10 projection of 170 million by 2015.

11                   This is the statute, 151.250. When a  
12 dam is constructed in this state, these are the regulations  
13 that says that that dam has to get a permit from the State.  
14 And it's any obstruction to any stream as number one points  
15 out. Number two, if there's any fill in the stream, they  
16 need a permit.

17                   And number three kind of separates the  
18 jurisdiction between the water dams from the coal surface  
19 mining dams. As you can see, these dams are based on the  
20 151; but on the surface mine dams, KRS Chapter 350 will have  
21 exclusive jurisdiction.

22                   So, both agencies are inspecting and  
23 looking at the dams and reviewing such dams, but you can see  
24 this avoids the duplication, that both agencies will be

1 covering both dams. This way, they will know the type of  
2 dams that are being regulated. They will know that if  
3 there's any surface mine dams, Surface Mine will be the ones  
4 which this covers the jurisdiction.

5 Now, what is a dam in the State of  
6 Kentucky? Well, you can go on the website [www.water.ky.gov](http://www.water.ky.gov),  
7 and it will give us an explanation of what a dam is.

8 A dam is defined as any structure  
9 twenty-five feet measured from the downstream toe to the  
10 crest and it has a maximum capacity or a volume of 50-acre  
11 feet to the top of the structure. Now, it's either/or, the  
12 criteria.

13 Now, that dam could be less in both  
14 those sizes if there's something downstream from the dam. As  
15 you can see by the downstream hazard class, a high hazard  
16 isn't how much damage is being done downstream, but the fact  
17 of what is downstream.

18 As you notice, if there's a possibility  
19 of loss of life, well, that causes that dam to be a high-  
20 hazard dam, or severe damages to houses, utilities,  
21 commercial buildings, highways and major roads.

22 Now, a moderate hazard, the difference  
23 there is there's no loss of life but significant damage to  
24 property and other buildings.

1                   A low hazard is just if the structure  
2 fails itself.

3                   And from an inspection point of view,  
4 both the high and moderate hazards are inspected every two  
5 years, and the low hazard every five years. We don't inspect  
6 that as often as they do with the coal slurry dams, but you  
7 can see that it says up in the regulations for us to inspect  
8 these this many times. You can see that in Engineering  
9 Memorandum No. 5 in the KRA.

10                  Now, this is an example of a  
11 certificate of inspection at one of our coal ash. On the  
12 first page, we will have the owner information. Now, this is  
13 sent out to the owner. You will also have the latitude and  
14 longitude. It will have the structural information for the  
15 dam. It will have the reservoir, upstream slope, crest and  
16 downstream slope of the dam.

17                  The inspector, when he goes out--now,  
18 this is all a visual inspection. You don't know what's going  
19 on underneath the dam, but at least what you can see, most of  
20 the time you can visually inspect over a period of time and  
21 compare the photos with past inspections and you can see any  
22 variations in the inspection report.

23                  You can see in the upstream slope,  
24 we'll take care of everything as far as vegetation, any wave

1 erosion and any maybe animals' burrows or homes on the crest.  
2 You can see the alignment, vertical alignment or any  
3 cracking on the crest on that downstream slope. A lot of  
4 times, you might find some sliding or some seepage on the  
5 downstream slope. So, all those are indications of either  
6 the dam is well built or it needs more work.

7 This second page of the inspection  
8 report highlights the systems that are inspected -- the  
9 principal spillway system, the emergency spillway and the  
10 drawdown system. The principal spillways are usually pipes.

11 They can be anywhere from metal pipes that have been  
12 corroded that needs to be addressed, maybe separation in  
13 concrete pipes and the outlet pipe.

14 You can see on the emergency spillway,  
15 which is usually a natural channel, you can see some headcuts  
16 in the natural channel that would cause that cut to come back  
17 onto the embankment.

18 The drawdown system is good for  
19 emergencies and maintenance on the dam, as well as the hazard  
20 class is always reevaluated and the recommendations from the  
21 engineer inspecting the dam.

22 As far as the two high-hazard dams that  
23 are located in Mercer County, and here is on a topo map the  
24 location. They're in the basin that goes into Lake

1 Herrington. At Lake Herrington, there is a dam -- it's Dix  
2 River Dam -- and that dam is located about three miles to the  
3 Kentucky River.

4 That location on the Kentucky River is  
5 at river mile 118, and there's a lock, No. 7, which is just a  
6 mile downstream from the confluence of Dix River and the  
7 Kentucky River. We will have more on that location.

8 This is the main pond that we just saw  
9 that was off of Dix River or into Lake Herrington. It's made  
10 up of just rock and earthen materials. You can see the  
11 embankment. This one is at a 3-to-1 slope which meets the  
12 criteria for embankments.

13 The discharge, you can see the black  
14 fines that are coming out, fly ash. The crest of the dam is  
15 inspected. We'll take photographs and prepare those.

16 Now, the main pond is now getting ready  
17 for expansion for additional storage. This was last summer  
18 before dewatering. And then just this month, you can see  
19 it's now been dewatered. You can see it's now getting ready  
20 for the expansion.

21 And what they will do is take the ash,  
22 regrade that ash and also maybe compact it with clay and then  
23 put an FML system in, a geosynthetic flexible membrane liner.  
24 And then as they raise that dam, this will be out of

1 operation while the aux pond, which is nearby, is the one  
2 that's taken all their processed waste.

3                   Now, this is the same location. These  
4 two are right next to each other. In fact, they share an  
5 adjacent embankment between the two dams. This is Lake  
6 Herrington. So, as you can see, this is the front of the  
7 dam, the embankment.

8                   So, any problems with this dam wouldn't  
9 go directly right into Dix River. In fact, the dam would act  
10 more like a restraint. It would fail and then go into the  
11 lake.

12                   This proposed aux pond, which is now  
13 completed, but there wasn't an aerial of it -- they don't fly  
14 often enough for us to get the most current aerials -- but  
15 now that it's finished and it has that adjoining embankment  
16 slope, so, the only thing downstream from that are these  
17 residences down here.

18                   So, this was once a low-hazard dam  
19 because there was nothing downstream from it; but now that  
20 they have the adjoining bank, both of these dams are  
21 considered high-hazard dams.

22                   The regulations call for public  
23 notification. That is, if a new dam comes in and it's being  
24 built, the public has to be notified of that. As you can

1 see, it's published in the paper with the widest  
2 circulation.

3                   It's published consecutively three days  
4 and it has a standard format of how the public is to contact  
5 the Division of Water, the State, and notify them if they  
6 have any concerns over the construction of the dam. And, so,  
7 they can write in or they can call in with their concerns.

8                   Now, this is the aux pond that was  
9 newly built last summer. A final inspection. We do  
10 inspections during the construction as well as final  
11 construction.

12                   We check elevations. We'll go out  
13 there with a survey crew. We'll check the elevations to make  
14 sure hydraulically the dam meets the criteria of the  
15 regulations. And we look to see if everything was put  
16 according to the as-built plans. And once they are done that  
17 way, then, we go ahead and approve their impoundment and they  
18 can go ahead and close it off and start impounding water.

19                   Some of the engineering drawing on the  
20 aux pond is reviewed by us. We will take the same values  
21 that they have, the strength of materials that they tested  
22 for. They will place this into a program, a stability slope  
23 program, and we will run the same program to see if we can  
24 come up with the same answers as far as a factor of safety.

1                   So, it's not a matter of just reviewing  
2 their work but actually trying to duplicate it and make sure  
3 that what they have done is correct.

4                   So, as far as the stability analyses  
5 are on this dam, you can see this is the original dam that's  
6 been built. And then once it goes off line, this is the  
7 proposed elevation of the dam.

8                   Now, these factors of safety have to  
9 meet the State factors of safety. The State's seepage is  
10 1.5. For the rapid drawdown, it's 1.2, and for earthquake  
11 loading, it's 1. And this dam met all those criteria for  
12 factors of safety.

13                   As far as the hydraulics are concerned,  
14 the regulations state that you can't overtop when trying to  
15 pass the PMP storm. PMP is the probable maximum  
16 precipitation, which in most of the counties, it's 28 inches  
17 of rainfall.

18                   So, we have the area capacity curve.  
19 We have stage discharge curve. We have hydrographs. And,  
20 so, they routed it and here's your routing summary of it that  
21 shows that their PMP doesn't overtop the dam even through  
22 their Phase I and Phase II analysis.

23                   Now, this is one of the low-hazard  
24 dams, just to give you an idea of the size of this one. This

1 one was the one that was 16 feet high. Its capacity was less  
2 than 100-acre feet, and I just wanted to show the capacity as  
3 compared to the larger ash pond dams.

4                   Now, the location of that small dam is  
5 on the Kentucky River. Here is the location of it. It has  
6 actually two ponds. This one is a much smaller pond and this  
7 one a little bit larger, but the size itself is small. It's  
8 at river mile 83, and one mile downstream from it is Lock No.  
9 5. And the City of Clifton is at river mile 79, and Lock 4  
10 which you talked about today is at river mile number 55.

11                   Here's the one on the East Kentucky  
12 Power facility. It's on river mile 178, but Lock 10 is on  
13 176. So, downstream is Fort Boonesborough which is in that  
14 general area. That gives you a location of where these are  
15 on the Kentucky River.

16                   So, there's only four in the basin. We  
17 have less ash pond basins than we do coal slurry dams. So,  
18 my presentation is shorter.

19                   Any questions on anything as far as ash  
20 ponds, the safety of them, the regular inspections of them?

21                   MR. COLLINS: The one in Mercer County  
22 near Dix Dam, how close is that to Burgin?

23                   MR. WELLS: From their location to the  
24 west, about a couple of miles west of it, the city is, a

1 couple of miles west.

2                   If you ever have a chance to go out and  
3 take a look at those facilities, they are constructed very  
4 well engineering-wise and the building on that is very good  
5 as far as the analysis of that shows. They're well built in  
6 Kentucky.

7                   They have to meet the same regulations  
8 as all the other dams in the state. We have stringent  
9 regulations for all of the dams, and they have to meet them,  
10 too. So, what I hope you get from that is they are not just  
11 piled up and then they can fail. They have to get a permit  
12 and they have to meet all the engineering requirements to  
13 construct.

14                   MR. REEDER: With respect to the  
15 Tennessee situation -- and this may not be a proper question  
16 to ask you -- you may or may not know -- but what I heard in  
17 here earlier was that in the Tennessee situation, the ash was  
18 probably the cause of it. It piled up.

19                   Of course, that's a federal operation  
20 down there, TVA. Who would have been responsible in  
21 Tennessee to have inspected that one?

22                   MR. WELLS: Well, TVA, even though you  
23 say federal, I think they're an entity of that but they are  
24 on their own, and I think the State of Tennessee has a dam

1 safety program as well.

2                               They actually listed that pond in their  
3 landfill, not as a dam, but in their landfill provision and  
4 they got a landfill permit to do that. The newspaper said  
5 that. So, it wasn't looked at, inspected as a dam safety  
6 dam.

7                               MR. REEDER: Oh, okay. Classified it  
8 as something else.

9                               MR. WELLS: Yes.

10                              MR. REEDER: But that's not likely to  
11 happen here.

12                              MR. WELLS: No. As soon as they build  
13 something, it goes under dam safety if it's not related to  
14 the coal industry. Anything else is all related under the  
15 dam safety program.

16                              MR. COLLINS: How often are these  
17 inspected?

18                              MR. WELLS: The ash pond, on the same  
19 level. If they're high hazards, they're two years. And if  
20 they are low hazards, five years.

21                              MR. WARE: But these four fall under  
22 the KPDES Program, too, don't they?

23                              MR. WELLS: Yes, they do.

24                              MR. WARE: In the event of a

1 catastrophic failure, is there any characterization of the  
2 sediment at the bottom of those structures? I mean, is there  
3 any indication as to what might be released under a worst-  
4 case scenario as far as downstream users are concerned?

5 MR. WELLS: Well, you mean, the metals  
6 in the fines?

7 MR. WARE: Right.

8 MR. WELLS: Those are your normal ones  
9 from combustion. The big ones are pretty good size dams.  
10 You've got Dix River Dam right below. So, it will hold back  
11 some of the fines, and most of it, they would just open up  
12 their gates and release the water. And the water shouldn't  
13 be too toxic.

14 MR. WARE: On the combustible materials,  
15 though, associated with a release of sediments are going to  
16 have arsenic and---

17 MR. WELLS: That's what they are  
18 worried about in Tennessee, but the reports I've seen is they  
19 have denied some of the testing of it.

20 MR. COLLINS: How close are these ponds  
21 to the dam?

22 MR. WELLS: Well, the two in Mercer  
23 County are real close to the dam.

24 MR. COLLINS: Just a few hundred feet?

1                   MR. WELLS: Like a few hundred feet,  
2 yes. It goes into the lake first. And the other two are  
3 right on the river. So, if they fail, it goes into the  
4 river. But there are locks. I showed you both the river  
5 mile where the locks were. I don't know if they could be  
6 used as something to hold back any more material or not, but  
7 they're so small that they probably wouldn't even get to the  
8 lock if they failed.

9                   MR. WARE: The one at Tyrone is below  
10 the Lawrenceburg intake. So, I guess the next intake would  
11 be Frankfort.

12                  MR. DAY: I noticed one place there  
13 where you were defining, what, high---

14                  MR. WELLS: High, yes.

15                  MR. DAY: Well, I didn't see anywhere  
16 that you mentioned city water intake as being a criteria that  
17 would qualify it for a high, moderate or low.

18                  MR. WELLS: Under public utilities,  
19 it's classified as a moderate-hazard dam. If you have an  
20 intake, it would be moderate hazard. Like you talked about  
21 No. 9 and Kentucky American draws out of that pool, that's a  
22 moderate--actually, we made that a high hazard because of the  
23 number of people that's depending on that source.

24                  In fact, I got to review your new dam

1 there at No. 9. Our only comment was it was going to be the  
2 same elevation as the other dam. There wasn't any raise in  
3 elevation in height. It was at the same elevation and the  
4 emergency spillway was the same elevation. It was just like  
5 pushed upstream 150 feet, some feet. So, other than that, we  
6 issued a permit.

7                                 If you come back with crest gates,  
8 then, we will have to look at that, too, if all the  
9 surrounding people around the lake don't get inundated. If  
10 anybody is going to be impacted by raising the gates, that's  
11 something we will look at later.

12                                 Thank you very much.

13                                 CHAIRMAN CHRISTOPHER: Bob, thank you  
14 for bringing that up, and Valerie, thank you for having these  
15 gentlemen here.

16                                 MS. HUDSON: I want to thank both  
17 Gary's for being here.

18                                 CHAIRMAN CHRISTOPHER: Obviously, with  
19 the Tennessee scenario, it has heightened everybody's concern  
20 and we all get a little bit more nervous about these  
21 situations. Good presentations. We know what we've got here  
22 in the river.

23                                 Anything else on that, guys, ladies?  
24 Steve, back to you on the policy for permission to navigate

1 on the Kentucky River locks and dams during high water.

2 MR. REEDER: You will note what is in  
3 the package on that. And that came about in this instance  
4 because of a request from a company that was going to supply  
5 materials for a new bridge that's being built at Gratz at  
6 Pool No. 1, at the edge of Pool No. 1.

7 Of course, you've got two ways to get  
8 that stuff in there. You can get it by truck. You've got to  
9 have quite a few highway permits and that sort of thing.  
10 There's some fairly bad roads, or you can bring it by river.

11 Well, if the locks are closed, you're  
12 not going to bring it by river. That lock is closed.

13 So, the company, Aquarius Marine, came  
14 up with a proposal and said, well, we'll just float it over  
15 the dam when the water gets high.

16 Well, I don't think that we as the  
17 River Authority -- it's a navigable river. We can't say  
18 somebody can't navigate. On the other hand, we can say how  
19 they're going to navigate it.

20 And, so, what I wrote this fellow back  
21 was that, yeah, you can but here's the conditions. And the  
22 conditions were taken from -- and none of this is written  
23 down by the Corps of Engineers -- but the Corps of Engineers,  
24 according to Earl Gulley, they had a similar nonwritten

1 procedure for the Kentucky River. They've got a nonwritten  
2 procedure for the Green River also for people operating  
3 barges that want to go over the dam in high water.

4                   And down there, you almost have to  
5 because they are hauling coal out of the second pool down  
6 there on a regular basis.

7                   So, it basically takes into account we  
8 told them at least twelve feet over the dam. If they're  
9 going to do it, we want to be able to buoy those, and, of  
10 course, shoal buoys, that we have notice in advance to put  
11 shoal buoys beside those lock walls because they're nine feet  
12 taller than the dam in that instance. It will vary at  
13 different locations.

14                   And if you look at the map on Dam No. 1  
15 up there, it's in a curve. So, you are fighting the current  
16 coming up anyway in that kind of situation. You're right on  
17 top of it.

18                   So, I think they are kind of  
19 discouraged. Of course, David had communication with them.  
20 I think they are sort of dropping the idea now, but not  
21 necessarily because of us. They're afraid if they get up  
22 there with their material, then, if the river goes down a  
23 little bit, they can't get that machinery back. And, so,  
24 that's why they're looking at I think building some temporary

1 ramps somewhere.

2                   But as a matter of course, what you see  
3 a lot of times and nobody ever asks the question but these  
4 houseboat folks in flood times are notorious for taking their  
5 boats to the Ohio River. And, of course, if they don't ask  
6 us, there's not much we can do.

7                   What I'm afraid of if we don't have  
8 something in writing and some way to deal with this thing as  
9 far as heavier boats are concerned, any damage -- and all it  
10 takes is one lick on one of these old dams from a barge, and  
11 then there we are sitting with nothing in place and no policy  
12 or procedure in place to deal with it.

13                   And, so, these people, they were honest  
14 enough to come to us, and I think most commercial people like  
15 that will. The houseboaters, we just hope for the best on  
16 them, but if they ask, we will give them the same set of  
17 rules pretty much.

18                   But I think as a matter of course--and  
19 it will vary by dam. This letter is written around Dam 1 on  
20 the Kentucky River, but it could apply to any one of them up  
21 through there. And it's not likely that anybody is going to  
22 go up there to get anything of that magnitude but they could.

23                   And, so, Mr. Chairman, I would urge  
24 adoption, unless the Corps has a problem with it, that at

1 least as a minimum requirement as I've outlined in that  
2 letter as a policy of the Board to advise these folks that  
3 want to navigate over the dam, be it commercial or be it  
4 privateers.

5 MR. DAY: You mean by having twelve  
6 feet of water over the---

7 CHAIRMAN CHRISTOPHER: A minimum of  
8 eleven to twelve feet, as he stated here in this letter.

9 MR. DAY: If Tim moves, I'll second it.

10 MR. HAZELETTE: I so move.

11 MR. DAY: Second.

12 CHAIRMAN CHRISTOPHER: A motion by Tim  
13 and a second by R.C. Any other discussion?

14 MR. MITCHELL: Steve, is there any  
15 discussion of insurance for these people if they were to  
16 damage one of our structures, posting some kind of bond?

17 MR. REEDER: We talked about that. It  
18 would just be a matter, Glenn, of--nothing wrong with that  
19 idea at all. In fact, I thought about that and I thought how  
20 hard it would probably be to enforce the thing. But proof of  
21 liability insurance wouldn't be a bad addendum. I don't know  
22 how much to make it because I don't know what these things  
23 cost. Is it \$20 million? What is it? It depends on the  
24 nature of the damage.

1 MR. MITCHELL: A typical corporate  
2 liability of a barge coming in here. I would think they would  
3 have something.

4 MR. REEDER: So, whatever the typical  
5 would be.

6 MR. MITCHELL: Just research the  
7 industry and see what it is.

8 MR. REEDER: We'll look at that and add  
9 that to that. Proof of reasonable surety.

10 MR. CAINES: What kind of turbulence do  
11 those propellers put out? I know on the Ohio River, they  
12 put out a lot.

13 MR. REEDER: When you're under stress.  
14 See, that was one thing that enticed them to ask us because  
15 coming back, if you've got the same level, you have to shut  
16 the engine off. But pushing against the current, you're  
17 digging down there.

18 That's why the river doesn't have a  
19 channel in it right now. The channel is disappearing because  
20 the tow boats are gone. Yeah, they will get down there.  
21 They will get twelve, fifteen feet down there or about eleven  
22 or twelve. That's where that number comes from.

23 We have a staff member, Mr. Ashcraft  
24 who works for us on the locks and he is a lockmaster. Well,

1 he used to hold a federal license to run a boat. Well, he  
2 was more concerned really than the Corps on that. He wanted  
3 fifteen feet. I said, well, if the Corps will take twelve,  
4 that's okay with me.

5 CHAIRMAN CHRISTOPHER: What was the  
6 amount of the bond that we required of David?

7 MR. KINLOCH BROWN: Seven hundred and  
8 sixty-three thousand one hundred dollars.

9 (MR. MILLER LEAVES)

10 CHAIRMAN CHRISTOPHER: I knew that was  
11 a point that we really discussed.

12 MR. KINLOCH BROWN: Anytime you go over  
13 \$400,000, the bonds are very difficult to get. If it was  
14 under \$400,000, we would have had a lot of options.

15 MR. REEDER: This wouldn't have to be a  
16 specific bond, and that's the case he's talking about. It  
17 would just need to be liability insurance. Why don't we say  
18 \$1 million.

19 MR. CAINES: That might force them to  
20 go some other route.

21 CHAIRMAN CHRISTOPHER: I think that  
22 would be pretty typical. Can we amend that?

23 MR. HAZELETTE: Could we ask for  
24 commercial users to come to the Authority office to get a

1 permit?

2 CHAIRMAN CHRISTOPHER: That's a good  
3 idea because then a permit could have all the necessary items  
4 on it.

5 MR. HAZELETTE: Does this create a  
6 problem for the Authority office?

7 MR. REEDER: Not any more so than this  
8 except for them coming in and showing proof because you've  
9 got to write them a letter anyway. Of course, that letter  
10 is, in essence, a permit. But if that's the way you want to  
11 proceed, then, that's fine, too. And you would restrict that  
12 pretty much to commercial users.

13 MR. HAZELETTE: Craft that would most  
14 likely cause damages.

15 MR. REEDER: They are more likely to  
16 cause damage.

17 CHAIRMAN CHRISTOPHER: Okay. Are we  
18 okay with that, making those modifications there after that  
19 amendment?

20 MR. HAZELETTE: Yes, sir.

21 MR. DAY: That's fine with me.

22 MR. REEDER: Yes, sir, Mr. Chairman.  
23 We'll change it and we'll bring it back at the next meeting.

24 CHAIRMAN CHRISTOPHER: I guess we made

1 a motion. We ought to finish that up. Any other discussion?  
2 If not, all in favor, signify by saying aye. Opposed,  
3 likewise.

4 Engineering Report.

5 MR. HAMILTON: I will be pretty brief.  
6 I kind of got put at the end of the agenda to try to clean  
7 up what you didn't get discussed. We've had extensive  
8 discussion on our two big projects already for 3 and 9, but I  
9 don't think we really got too much into what we still lack at  
10 Dam 9.

11 I kind of color-coated it here on the  
12 plan drawings because all the details are a little bit busy.  
13 The brown highlights basically the historical lock and dam.  
14 There's the main dam. The river is flowing from the top  
15 right corner down to the bottom left, the lock chamber and  
16 the auxiliary dam, and those are the historical aspects.

17 And the red highlighted here is what  
18 the contractor has completed primarily. This is the  
19 Jessamine County side. The bank of the river is right about  
20 here.

21 The cells that we are talking about  
22 leaking earlier this afternoon was primarily this cell right  
23 here.

24 But you can see that the contractor has

1 completed all the way across the dam. Mr. Reeder said  
2 earlier on that they had substantially completed the dam  
3 itself. And you can see here that all eight full-sized cells  
4 have been completed as well as all seven of the arccells.

5                   The one bit that they still have to  
6 complete is this closure cell. Unlike the Jessamine County  
7 side which goes up into a floodplain, on the Madison County  
8 side, it ties into a small rock face cliff. And, so, there  
9 is a rectangular closure cell on that side of the river.

10                   They poured the mass concrete in there.  
11 So, that's essentially plugged up, but there is a segot wall  
12 that will be installed on that which is essentially a number  
13 of driven shafts, overlapping driven shafts that are then  
14 refilled with concrete to better seal that off from seepage  
15 because you are dealing with a stair-stepping rock face. So,  
16 you really can't get a good seal there.

17                   And then once that is constructed, then  
18 they will go back in there and put in their finished cap, but  
19 the mass concrete has already been placed for that piece.

20                   The other item they still have to  
21 complete on this main dam is the placement of these precast  
22 concrete toe blocks which help provide stability to the dam.

23 Their primary purpose is to protect against scour over the  
24 next fifty years. But like I said, they don't provide any

1 kind of stability to the dam itself, the new dam.

2                   So, those are the primary things that  
3 they still have to complete on the main dam is to finish that  
4 segot wall in the cap and the toe blocks on the main dam.

5                   On the north abutment, they have to  
6 finish the placement of these -- you probably don't remember  
7 -- but there was a picture that Greg Yankey showed  
8 of these precast concrete blocks that help armor this bank.  
9 Downstream of that you have derrick rock and then Class III  
10 channel lining to armor this pooled bank area right here.  
11 So, that has to be completed.

12                   The other thing that has to be  
13 completed on this north abutment is the siphon pipe system  
14 that basically bypasses the dam. They have installed most of  
15 the upstream section but they have yet to do a lot of the  
16 downstream part of it.

17                   And then the final major piece that  
18 they still have to do is the demolition work which involves  
19 taking out the steel lock gates, demolishing the auxiliary  
20 dam and the auxiliary abutment. That's one of the last  
21 things that they will do before they start doing their final  
22 site clean-up, fencing and stuff like that.

23                   One thing I did want to mention, like  
24 Mr. Reeder said, the structure is substantially complete.

1 There is a definition in our contract that says this is  
2 substantial completion which is basically just about  
3 everything other than site clean-up -- get your fence up.  
4 So, contractually, that is described in our contract with  
5 C.J. Mahan.

6                   Structurally, the new dam is in place.  
7 Most of the stuff they have yet to do involves the scour  
8 protection at the toe, scour protection along this bank, the  
9 completion of the siphon pipe system and then the demolition  
10 of the old structure.

11                   And like we discussed, to get that all  
12 done, assuming that they can get back out there in April,  
13 we're looking at an August completion.

14                   But I just wanted to touch on that  
15 because that's about the only thing I thought that we might  
16 have missed earlier on in our discussion.

17                   MR. REEDER: That's good as to the  
18 distinction between what is, in fact, substantially completed  
19 and what's by law or contractually substantially completed.  
20 That is a confusing point because it's addressed in the  
21 contract as substantial in one way; and in our world, if we  
22 were to look at it, we would say it's substantially done  
23 because--you know, I shouldn't have used that terminology or  
24 they ought to have different words in the contract, one of

1 the two, but there is a difference. I'm glad you pointed  
2 that out, David.

3 MR. HAMILTON: That's all I have to  
4 discuss. We've talked about both projects extensively  
5 already.

6 MR. WARE: Are the gates going to be  
7 placed somewhere downstream?

8 MR. HAMILTON: Gates? Actually, that  
9 was a change order that we got. Originally, the gates were  
10 going to have to be preserved, and we talked with SHPO and  
11 they backed off on requiring it. They said that we could  
12 scrap those basically. So, they will be taken off. They can  
13 be cut up in pieces and sold off to a scrap yard.

14 MR. WARE: There will be no attempt to  
15 protect the old lock walls? I assume they'll just be allowed  
16 to deteriorate?

17 MR. HAMILTON: Yes. Nothing is being  
18 done to the lock walls.

19 CHAIRMAN CHRISTOPHER: Thank you,  
20 David. The Director's Report.

21 MR. REEDER: Just a couple of things.  
22 You've got some interesting pictures in your folder there. I  
23 took those pictures myself. That's the worst build-up.  
24 That's Lock 4. That's the worst build-up of debris that I

1 have ever seen. It's probably in the wake of an ice storm,  
2 you get old trees that have been thrown in there.

3                   Our guys are trying to deal with that  
4 because if you don't deal with it, then, you're going to have  
5 a problem when you try to open that lock up this year. It's  
6 a very slow process, no easy way to do it. Some of it has  
7 already sunk clear to the bottom, water-logged. And what  
8 those guys do out there of ours is short of miraculous  
9 considering you have to do it all by hand.

10                   At the next meeting, we should have an  
11 item on the agenda much like the coal slurry. It's a topic  
12 of the newspapers and so forth, more in the Frankfort area  
13 than anywhere else.

14                   Those of you that live in or around  
15 Frankfort or work in Frankfort saw the news articles about  
16 the Dix River Dam. Of course, it's an old subject. The  
17 Mayor -- the Mayor is not here now -- but the Mayor is  
18 interested in it and I think he's going to hold off having  
19 any meetings at City Hall about it until we have this meeting  
20 to have experts there.

21                   What I would like to do is plan to  
22 invite some experts from the State. Valerie is going to help  
23 me with that just like she did today to explain their  
24 inspection process and what they know about it.

1                   The idea here or the gist of the  
2 Frankfort paper was that by some opinion is if it breaks, the  
3 City of Frankfort would be a lake. Well, you know, I don't  
4 know whether it would be a lake or not. There's varying  
5 opinions on that. There was a lawsuit in the late seventies  
6 after the flood of 1978.

7                   I intend to try to get that trial  
8 transcript because a lot of that information is no longer  
9 around and see what some of those experts said there.

10                  And, so, I'd like to have some Energy  
11 and Environmental Cabinet people, plus I get to thinking that  
12 in fairness, maybe have somebody from KU who owns the dam to  
13 give their side of it. It's a matter of local interest but  
14 it's a big matter of local interest.

15                  I know that they have contacted Daron  
16 Rambo, the Emergency Coordinator for Franklin County, and  
17 many others that have been involved in trying to figure out  
18 what this is. The Mayor and the City Manager, they want to  
19 be here and I think I want to have Mr. Rambo here, too, and  
20 let them hear what these folks have to say. So, that will be  
21 on next time.

22                  One thing I do want to mention is that  
23 you all are familiar with, you voted for it, was our  
24 selection of projects done by Stantec that we have for our

1 future guidelines as far as scheduling construction and that  
2 type of thing.

3                   One little twist to that has occurred.

4   Of course, in the normal course of things, we would  
5 prioritize those and at planning meetings adopt what order we  
6 want to do those in, and some of them range from fairly minor  
7 things to some bigger things on all the dams on the river.

8                   The Governor's Office contacted me a  
9 couple of days before Christmas, and they were gathering  
10 information with regard to the stimulus program that I think  
11 just passed. The President is supposed to sign it this week  
12 sometime. It just passed the federal House and Senate.

13                   So, they wanted to know what projects  
14 we had that could be done or started in six months, which  
15 means you've got to have very abbreviated engineering.  
16 You've got to have no land acquisition to deal with. You've  
17 got to have something that's pretty well ready to go.

18                   We responded in one day, I think. I  
19 don't think anybody else did. We responded with about--and  
20 the young man that did know over there, a fellow named Will  
21 Coffman -- I don't know him, but he works in Governor  
22 Beshear's office -- he works here and in Washington both --  
23 and he understood all about it, and he understood that  
24 permitting and anytime you work on the river, you've got to

1 have permits, a 401 or a 404 permit from the Corps and the  
2 State and that's just understood.

3                   You've got to have it, but the type of  
4 projects we would give them are not, since you're not  
5 replacing a whole dam, those kind of projects are not likely  
6 to be a problem.

7                   So, I put in of local interest Locks 3  
8 and 4 if we don't have enough money left over in this bond  
9 issue to do them, to renovate them. They are fully  
10 permitted. They're fully designed. You could go to work as  
11 soon as you could let a contract on them right now.

12                   The other things are some lower-grade  
13 work at Locks 1 and 2 which wouldn't require -- it's  
14 maintenance. It shouldn't require any permits probably.  
15 Rock armoring of about four locations -- Dam 12, Dam 13 and  
16 Dam 1 and 2 to hold them, to secure them.

17                   And there are several other things,  
18 including the remedial work at Lock No. 10 at Boonesborough  
19 as part of that near-term solution the Corps didn't get  
20 finished.

21                   The Corps called me, on the other hand,  
22 and said, well, we don't know the nature of this stimulus  
23 program, but if any of it comes through us, what do you want  
24 to do?

1                   I said, I want to start where we left  
2 off on Dam No. 10 and go from there with that near-term  
3 solution plus the -- and that dam is permitted, too -- a  
4 near-term solution which we had planned to pay for out of our  
5 own pocket, and the Decision Document which we consider a  
6 pretty important piece of information, irrespective of  
7 whether we get any more federal dollars or not.

8                   So, I don't know what that's going to  
9 be. Nobody knows at this point how they're going to  
10 administer that. Are they going -- they being the federal  
11 government -- it is going to go directly to the states, will  
12 the Governor have something to say about it, will the  
13 Congressmen have something to say about it or, as a  
14 mechanism, will they go back through traditional agencies  
15 like the Corps of Engineers and people like that or go  
16 directly to the state with it? We don't know the answer to  
17 any of that at this point.

18                   Since the bill has passed now, I  
19 suspect we will be getting some information. And the next  
20 time we get together, we will know what we're talking about.

21                   So, I really don't know, but I went  
22 back and amended what I turned in the other day and I told  
23 them about how many jobs would be generated on each location,  
24 the wage scales a lot of those people make, where they would

1 be buying their material and stuff like that.

2                   You're going to be buying it locally,  
3 you're going to be buying it from quarries, you're going to  
4 be buying it from a lot of suppliers around here and we're  
5 going to employ a lot of trucking companies. And the jobs on  
6 the sites themselves are going to union scale jobs. They're  
7 good jobs. Jeff Dingrando did some research for me as to  
8 what they are paying over at Dam No. 9. So, they're good  
9 jobs, and I threw that in.

10                   And I also threw in the aspect of any  
11 of these things that have a prayer for green power  
12 application. They've got to be stabilized. So, we're  
13 offering that, and I know the Administration is high on that  
14 by reading the paper. So, that's thrown in there, that  
15 aspect. So, I don't know whether we will get anything or not  
16 but at least we've tried.

17                   I did want to mention that Sue Ann  
18 called me Saturday. They burned one of our buildings at Lock  
19 No. 7, a storage building -- arson -- tried to get into  
20 another building down there that housed some USGS equipment  
21 for our gate system.

22                   In addition to that, they trashed the  
23 building and tried to tear it down and steal the equipment at  
24 Dam No. 8 in Jessamine County because it's pretty desolate



1 do. I've got Sue Ann looking at the boundaries of the  
2 property so we can advise police agencies what our property  
3 limits are and that kind of thing. If there's any better way  
4 we can deal with the local police on some of that stuff.

5                   The Frankfort Police have been pretty  
6 good about helping us, the City Police at Bellepoint, and the  
7 Versailles Police Department, which now has county-wide  
8 jurisdiction in Woodford County, has been pretty good.

9                   Jessamine County does about as good as  
10 they can do. These places are so remote they can't get  
11 there. So, we'll talk to you when we get on down that line  
12 and see what you all think. You've been in the law  
13 enforcement business a long time and have probably got some  
14 of these same kinds of calls that you can't do a lot about  
15 sometimes.

16                   That's all I have.

17                   CHAIRMAN CHRISTOPHER: Thank you,  
18 Steve. I have nothing to report other than I do appreciate  
19 everybody's patience today. It's a long agenda, a lot of  
20 information.

21                   Other Business? David, we've got a  
22 note in here. Anything you want to say?

23                   MR. REEDER: You are fully operational  
24 now, aren't you?

1 MR. KINLOCH BROWN: As of December  
2 30th, we're fully operational on the three units. The only  
3 note I will say is KU struggled for years and years and they  
4 could never get that first unit, the vibration out of it, and  
5 we've got it running smooth as can be now.

6 Just to let you know, we've still got a  
7 number of years of work to get the plant renovated into more  
8 like a new situation.

9 The one thing I will note, we just  
10 spent a lot of money updating our dissolved oxygen equipment.

11 As you all know, the only oxygen monitoring was at Lock and  
12 Dam 4 previously and that's gone now. We have now bought new  
13 equipment that hopefully will be installed this week which  
14 will do year-round monitoring of dissolved oxygen.

15 And hopefully by the end of next month,  
16 if I get this satellite guy -- we can't get regular Internet  
17 out there -- we'll have it on the website so you can go and  
18 see the DO and you can see anything from our plant, the  
19 operations on our website. And, of course, we log all the  
20 dissolved oxygen data.

21 MR. WARE: Is that going to be upstream  
22 and downstream or just upstream?

23 MR. KINLOCH BROWN: It's just  
24 downstream of the plant where the water from our plant mixes

1 with the water coming over the spillway.

2 CHAIRMAN CHRISTOPHER: Anything else  
3 from other Board members?

4 MR. WARE: Are we okay with FERC now?

5 MR. KINLOCH BROWN: No, we're not okay  
6 with FERC. We submitted all that. Everything was negotiated  
7 to FERC. FERC came back with three things that they did not  
8 like in the lease, and I gave that to Mr. Reeder and he gave  
9 it to your all's attorneys and they are looking into it.

10 I sent a letter to FERC saying that the  
11 Commonwealth was looking into those issues and I was going to  
12 try to facilitate your all's attorneys talking to the FERC  
13 attorneys and trying to get that worked out.

14 Personally, we don't care which way it  
15 is.

16 MR. REEDER: Yes. That's a good  
17 letter. You explained it well.

18 MR. KINLOCH BROWN: The issues that the  
19 Commonwealth has and the issues that the feds have, and  
20 whichever way it comes out is fine with us.

21 MR. REEDER: We've got two happy  
22 parties here and---

23 MR. WARE: So, if we don't hear from  
24 FERC, we're okay.

1 MR. REEDER: Yeah. But for the record,  
2 the Finance legal staff has got this stuff. Glenn is not  
3 here right now. So, we just have to follow up on that. If  
4 they give you a problem, if you hear from them, let me know.

5 MR. KINLOCH BROWN: I'll let you know  
6 if we hear back from them. I told them it was basically in  
7 the Commonwealth's court, that their attorneys would be  
8 dealing with this stuff.

9 The one other quick note I would make.  
10 We have preliminary permits to develop hydro sites at Lock  
11 and Dam 12 and 14, and Mr. Reeder has asked me at some point  
12 to come in and make a presentation about that. So, whenever  
13 you all want us to, we will do that.

14 We have been working with the same  
15 engineering firm in South Carolina that did the work on 7  
16 before we bought it that you all requested, and they have  
17 come up with a design that they think will maximize the  
18 stability of the thing and actually make the dam stronger as  
19 opposed to weaken it.

20 MR. WARE: Will this unit be outside  
21 the lock chamber?

22 MR. KINLOCH BROWN: It will be in the  
23 lock chamber.

24 MR. REEDER: There's places that says

1 for a cutoff wall.

2 MR. KINLOCH BROWN: It will be much  
3 stronger than the cutoff wall.

4 MR. REEDER: Probably helps it as long  
5 as the walls---

6 MR. KINLOCH BROWN: The cutoff wall is  
7 slightly upstream. The actual hydro plant would be right in  
8 line with the actual dam. So, it would be straight across as  
9 far as having the strength. It wouldn't be a part of the dam  
10 that was relying on the lock wall.

11 MR. REEDER: While you were out, Glenn,  
12 we just had a short discussion of the hydro situation that's  
13 with some of your legal folks up there. They probably need  
14 to get back with us as soon as they can.

15 MR. MITCHELL: It's in their shop right  
16 now?

17 MR. REEDER: Yes, sir.

18 MR. KINLOCH BROWN: Just one other  
19 quick note just to let you all know. Under our lease, you  
20 all haven't billed us yet. You're supposed to bill us  
21 quarterly for our fee and you all haven't started billing us  
22 yet.

23 MR. MORSE: I thought our discussion  
24 was until there was a lease executed, we couldn't do it.

1 MR. REEDER: That's the official  
2 position. We need a lease in effect.

3 MR. MORSE: Well, it's not a fee. It's  
4 a lease payment.

5 MR. REEDER: Well, it's a lease  
6 payment, payment on a lease we've got, but we have a lease.

7 MR. KINLOCH BROWN: We have a signed  
8 lease. Whether the feds like it or not is another issue but  
9 we have a signed lease between the parties.

10 MR. REEDER: We'll go ahead and send  
11 them a bill.

12 MR. KINLOCH BROWN: We were supposed to  
13 be billed quarterly on four equal payments.

14 MR. REEDER: A little confusion there.  
15 We didn't have a lot of finality to that until FERC signed  
16 off on it, but, then again, it may be forever until they do.

17 MR. KINLOCH BROWN: It could be years.

18 CHAIRMAN CHRISTOPHER: I'll take motion  
19 to adjourn.

20 MR. DAY: You've got it.

21 MR. COLLINS: Second.

22 CHAIRMAN CHRISTOPHER: All in favor,  
23 say aye. Good to see everybody.

24 MEETING ADJOURNED

1  
2  
3  
4

STATE OF KENTUCKY

COUNTY OF FRANKLIN

I, Terri H. Pelosi, a notary public in and for the state and county aforesaid, do hereby certify that the foregoing pages are a true, correct and complete transcript of the proceeding taken down by me in the above-styled matter taken at the time and place set out in the caption hereof; that said proceedings were taken down by me in shorthand and afterwards transcribed by me; and that the appearances were as set out in the caption hereof.

Given under my hand as notary public aforesaid, this the 20th day of February, 2009.

\_\_\_\_\_  
Notary Public  
State of Kentucky at Large

My commission expires February 10, 2013.