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REGIONAL RESOURCE STEWARDSHIP COUNCIL MEETING

AUGUST 23 & 24, 2005

VOLUME I OF II

LOCATION:

TENNESSEE VALLEY AUTHORITY  
400 WEST SUMMIT HILL DRIVE  
KNOXVILLE, TENNESSEE 37902

REPORTED BY:

KIMBERLY J. NIXON, RPR  
NATIONAL REPORTING AGENCY  
1255 MARKET STREET  
CHATTANOOGA, TENNESSEE 37402  
423.267.8059  
800.261.8059  
423.266.4447 (FAX)

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1 MEMBERS OF THE REGIONAL RESOURCE STEWARDSHIP COUNCIL

2

3 MR. DAVE WAHUS (FACILITATOR)

4 MR. BRUCE SHUPP (COUNCIL CHAIR)

5 MR. DON GOWAN

6 MR. TOM VORHOLT

7 MR. JIM JARED

8 MR. BILL FORSYTH

9 MR. TOM LITTLEPAGE

10 MR. KENNETH RAY DARNELL

11 MS. MILES MENNELL

12 MR. JOE SATTERFIELD

13 MR. PHIL COMER

14 MR. TOMMY ED ROBERTS

15 MR. BILL TITTLE

16 MR. GREER TIDWELL, JR.

17 MS. ROSEMARY WILLIAMS

18 MR. JIMMY BARNETT

19 MR. MIKE BUTLER

20 MR. AUSTIN CARROLL

21 MR. JIM FYKE

22 MR. W. C. NELSON, JR.

23 MR. KARL DUDLEY

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TENNESSEE VALLEY AUTHORITY REPRESENTATIVE

KATE JACKSON, Ph.D.  
EXECUTIVE VICE PRESIDENT  
TENNESSEE VALLEY AUTHORITY  
DESIGNATED FEDERAL OFFICER  
400 WEST SUMMIT HILL DRIVE, WT11A-K  
KNOXVILLE, TENNESSEE 37902

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P R O C E E D I N G S

2

CHAIRMAN BRUCE SHUPP: Good morning,

3

everybody. Welcome to the Council meeting. This

4

morning we have got two members that haven't been

5

here before. So I think what we will do is go around

6

the table and let everybody introduce themselves to

7

them and them to you. We will start with you,

8

Austin.

9

MR. AUSTIN CARROLL: I am Austin

10

Carroll. I'm general manager of Hopkinsville

11

Electric System in Hopkinsville, Kentucky. I'm just

12

trying to keep the lights on for you.

13

MR. JIM JARED: My name is Jim Jared.

14

I'm the mill controller with Temple-Inland Corrugated

15

Papermill in New Johnsonville, Tennessee. I am here

16

as a representative from the Tennessee Valley

17

Industrial Committee, which is an association of

18

direct-serve customers from TVA.

19

MR. PHIL COMER: I am Phil Comer from

20

Douglas Reservoir and represent several environmental

21

groups, including the group that Nelson Ross is

22 representing here today, the Isaak Walton League.

23 MR. BILL FORSYTH: I'm Bill Forsyth  
24 from Murphy, North Carolina. I wear several hats.  
25 I'm the Governor's appointment for North Carolina. I  
1 live on the Hiwassee Reservoir. I am chairman of 5  
2 Murphy Electric Power Board and a TVA distributor.  
3 So we try to keep the lights on also.

4 MR. DON GOWAN: I am Don Gowan. I am  
5 one of the newcomers to the Council. I live in  
6 Virginia. I work for the Nature Conservancy of  
7 Virginia and also do work in Tennessee for the Nature  
8 Conservancy. I am a delighted to be here. I'm a  
9 resident of Tennessee and very excited to be here.

10 CHAIRMAN BRUCE SHUPP: Welcome to you.

11 MR. JIMMY BARNETT: Jimmy Barnett,  
12 General Manager of Sheffield utilities in Sheffield,  
13 Alabama, and I try to keep the lights on too, except  
14 when the tornadoes and ice storms come around.

15 MRS. ROSEMARY WILLIAMS: I'm Rosemary  
16 Williams representing the State of Mississippi. I'm  
17 from Corinth, Mississippi in the northeast corner of  
18 the state. I am a lifetime, I think, community  
19 volunteer, mostly in economic development, and I am  
20 currently working with the National Park Service on a

21 project.

22 MR. BILL TITTLE: I am Bill Tittle  
23 from Chattanooga. I am Chief of Emergency  
24 Management. I try to keep people from blowing up  
25 your power plants. And I live on the Chickamauga  
1 Reservoir. 6

2 MR. W. C. NELSON: I am W. C. Nelson  
3 from Blairsville, Georgia and I represent Georgia. I  
4 am the Chairman of Union County Development  
5 Authority.

6 MR. TOM LITTLEPAGE: I am Tom  
7 Littlepage from the Alabama Office of Water Resources  
8 in Montgomery. Our office is chartered with managing  
9 water quantity issues for the State of Alabama, and I  
10 just enjoying being here.

11 MR. KARL DUDLEY: I am Karl Dudley,  
12 Pickwick Electric Coop in southwest Tennessee and  
13 serve part of six counties, including the beautiful  
14 Pickwick Lake over there. So we try to keep the  
15 lights on, too.

16 MR. TOMMY ED ROBERTS: I'm Tommy Ed  
17 Roberts from Decatur, Alabama. I'm an Alabama,  
18 Representative. I'm Past President of the Decatur  
19 County Economic Development Association and Decatur

20 County Port Authority.

21 MR. GREER TIDWELL: I'm Greer Tidwell.

22 I direct the environmental programs for  
23 Bridgestone/Firestone Tire Company. I am glad the  
24 lights are on here. I have been in Mexico for the  
25 last year and a half looking for a new site to put a  
1 new tire plant because the Mexicans need a lot of new  
2 tires.

3 And I have been there when the lights  
4 went out, and despite the progress they've made about  
5 great economic development and the possibilities  
6 around different states down there, it matters. It  
7 made an effect -- made an impact on us. We  
8 appreciate the lights staying on.

9 I sort of represent the Tennessee  
10 Wildlife Federation. I am a parent of kids in  
11 Tennessee who want a good place to hunt and fish for  
12 the next few generations.

13 MR. KENNETH DARNELL: I'm Kenny  
14 Darnell from Murray, Kentucky. I'm the Governor's  
15 representative from the State of Kentucky. I live on  
16 Kentucky Lake. We have plenty of places for tire  
17 plants and we will keep the lights on for you.

18 MS. MILES MENNELL: I'm Miles Mennell.

19 I'm the Director of the Association of Tennessee  
20 Valley Governments. We represent all the counties  
21 and towns and cities in the seven state TVA region,  
22 and we're all things to all people.

23 MR. JOE SATTERFIELD: I'm Joe  
24 Satterfield, General Manager at Blue Ridge Mountain  
25 EMC in Young Harris, Georgia. We serve three  
1 counties in Georgia and two in North Carolina. So 8  
2 I'm glad to be here.

3 MR. TOM VORHOLT: My name is Tom  
4 Vorholt, and I'm Vice President of Dry Cargo Sales  
5 with Ingram Barge Company headquartered in Nashville.  
6 We move about 110 millions tons throughout the  
7 waterway system, including 65 million tons of coal.  
8 So we also help keep the lights on.

9 DR. KATE JACKSON: I'm Kate Jackson.  
10 I'm your Designated Federal Officer. I'll talk a  
11 little bit more about what that means in a minute.

12 CHAIRMAN BRUCE SHUPP: Bruce Shupp. I  
13 have been Council Chair for about three, three and a  
14 half years, I guess, now. And I began in this job as  
15 the National Conservation Director from B.A.S.S. and  
16 I retired from B.A.S.S. in Montgomery, Alabama about  
17 a year ago. So I am now representing recreation

18 interests but no longer employed by someone.

19 FACILITATOR DAVE WAHUS: I am Dave  
20 Wahus. I am your facilitator for the meeting.

21 CHAIRMAN BRUCE SHUPP: Kim is our  
22 recorder. Kate, would you like to bring us  
23 up-to-date with what's going on with TVA and with the  
24 Council?

25 DR. KATE JACKSON: Well, it doesn't  
1 say that on the agenda. I am not supposed to do  
2 that.

3 CHAIRMAN BRUCE SHUPP: Well, what does  
4 it say?

5 DR. KATE JACKSON: I think it's  
6 welcome and opening remarks. First of all, I just  
7 want to thank you-all for being here. We really  
8 appreciate the time that you spend and the -- not  
9 just the time out of your busy schedules but the  
10 emotional energy that you put into understanding how  
11 we do things and giving us suggestions on how we can  
12 do things better and what your interests are and how  
13 we can better balance the investments that we make in  
14 the stewardship activities.

15 I am delighted that the new members  
16 are here. If you have questions, if you don't

17 understand what we're talking about, if you want more  
18 background information, we would be more than happy  
19 to inundate you with that information.

20                   So I am the Designated Federal  
21 Officer. What that means for this Council is I am  
22 the liaison point between you and the TVA Board. The  
23 TVA Board is very interested in what this diverse  
24 group thinks about how we manage our stewardship  
25 responsibilities and doing it better. They very much  
1 appreciate the time and energy that you put into this  
2 and the questions that you ask, which help us think  
3 about what we're doing.

4                   I am the Executive Vice President for  
5 the River System Operations and Environment. What  
6 that means is I manage all of the public lands and  
7 the water activities for TVA. I am the Environmental  
8 Executive and I have all the R&D investments for the  
9 Agency.

10                   I am also responsible for establishing  
11 environmental strategy and policy. So the things  
12 that you think about and are worried about I care  
13 very much about, and I want to make sure that we  
14 think about what the stakeholders are interested in  
15 in the Valley so that we can address those issues as

16 they change, which we all recognize they do over  
17 time.

18                   And this meeting is a little bit  
19 different than the meeting that we had in March.  
20 We're going to have a few presentations on water  
21 quality, reservoir release improvements, and then you  
22 had asked for some external participation by some of  
23 the partner organizations we work with on water  
24 quality issues. You will hear a presentation by a  
25 couple of those and we will do a tour and then we  
1 will come back and talk about recreation strategy and 11  
2 have you provide us some of your views and advice.

3                   And I think Skila Harris will come in  
4 and visit for a few moments this afternoon. Bruce  
5 had asked me to tell you when we're going to have an  
6 expanded board, and I wish I could do that. If I  
7 could do that, I probably wouldn't be sitting around  
8 this table with you. I would be, I don't know, in  
9 Vegas or something.

10                   I do know that there are names being  
11 vetted. I know that process is going on. I assume  
12 that probably nothing will happen until after the  
13 recess is over next week. There are rumors that  
14 things will happen sometime this fall. That's the

15 best I have got. And you can see if Skila has that  
16 same information or different information when she  
17 comes to visit with you this afternoon.

18 That's it for me.

19 CHAIRMAN BRUCE SHUPP: Thank you.

20 David is going to go over the continuity of the  
21 agenda for this afternoon -- this morning.

22 FACILITATOR DAVE WAHUS: Thank you,  
23 Bruce. If I could draw your attention to the agenda  
24 that you have in front of you. In a few minutes  
25 we're going to be hearing about water quality  
1 partnerships, followed by TVA Reservoir Releases 12  
2 Improvement Program, and then the Isaak Walton League  
3 representative will be talking about water quality  
4 improvement efforts.

5 Following that we will be going on a  
6 bus tour of several Isaak Walton League projects, and  
7 that will conclude with lunch and we will return to  
8 the auditorium around 1:00 or we will start our  
9 return to the auditorium at 1:00 and then at 2:00 we  
10 will reconvene here in the -- in this room and we  
11 will hear a presentation on clean marina efforts on  
12 Fontana Reservoir.

13 Following that at 2:25, water quality

14 improvement efforts on the Hiwassee River, Watershed  
15 Coalition. Then at 3:20 a water quality -- water  
16 quality improvement, Little River Water Quality  
17 Forum.

18 Then at 3:45 is a presentation you --  
19 I know you're going to be paying very close attention  
20 to all the other presentations, but this one you need  
21 to pay particular attention to because you're going  
22 to be discussing the next presentation tomorrow  
23 morning.

24 At 3:45 Bridgette Ellis will be doing  
25 a presentation on TVA recreation strategy, which is  
1 prepared as a result of your comments at an earlier <sup>13</sup>  
2 session. Then we will review the questions and  
3 adjourn about 5:00, followed by dinner at Bravo's  
4 this evening, and we will hear more about that a  
5 little later on this afternoon.

6 Tomorrow morning we will reconvene at  
7 8:00. Following any administrative announcements, we  
8 will go into the discussion of the questions. You  
9 should have a copy of the questions. We will review  
10 the questions this afternoon before we break, and  
11 then at 9:30 we will have public comments where the  
12 public will be invited to come in and make

13 presentations for about an hour, if we have that many  
14 people that come in.

15 At 11:00 we will continue the  
16 discussion of the questions and finalize any  
17 recommendations that you wish to make to TVA as in --  
18 as it's related to TVA recreation strategy. About  
19 12:00, 12:45 we will discuss the next meeting,  
20 identifying the date, and we will adjourn about 1:00.

21 Is there any questions?

22 And I hope everyone can be here for  
23 the entire meeting.

24 Any questions about the agenda?

25 Thank you.

1 CHAIRMAN BRUCE SHUPP: Thank you. 14

2 Kate.

3 DR. KATE JACKSON: I wanted to  
4 introduce one person in the room. Ken Breeden, are  
5 you still back there? Will you wave your hand  
6 around?

7 Ken is the Executive Vice President of  
8 Customer Service and Marketing, and I like it when we  
9 get executive level attention. So I appreciate your  
10 being here, Ken.

11 Ken manages the interaction with all

12 the customer interface with our distributor customers  
13 and our direct-serve customers. So you guys who are  
14 those customers, you can say bad things about him  
15 after he leaves, but, Ken, we really appreciate you  
16 being here.

17 MR. KEN BREEDEN: Thank you, Kate.

18 CHAIRMAN BRUCE SHUPP: Okay. We begin  
19 our presentation with Buff Crosby on the water  
20 quality partnerships enjoyed by TVA.

21 MS. BUFF CROSBY: Good morning. One  
22 of the things that I want to talk to everybody about  
23 today is some things that are really important to us  
24 in our stewardship activities, and that's our  
25 partnerships.

1 A couple of areas that I am going to 15  
2 cover that partnerships are really important to us is  
3 our water quality efforts and our clean marina  
4 initiative. So what I am going to do is provide you  
5 with an overview of these two efforts, and then later  
6 on today, as Dave said, we're going to hear from some  
7 of those actual partners.

8 Our targeted watershed initiatives are  
9 focused on specific locations within the Valley.  
10 They are located where we believe that we -- there's

11 a need for action based on actual resource  
12 conditions, but it's also focused on where we think  
13 we can have partners and develop partnerships to help  
14 us make improvements.

15 Improving the water quality efforts  
16 across the Valley is typically a multi-year effort.  
17 So where we look to do improvements, we also have to  
18 have the commitment by our partners for that  
19 long-term commitment to be able to do some of this  
20 work.

21 Now, a lot of times you will hear us  
22 kind of TVA folks talk about our TVA initiatives, but  
23 I want to kind of make it really clear that these  
24 really aren't our initiatives. These water quality  
25 initiatives are really a partnership role where TVA  
1 has a role to play. We don't have any initiatives<sup>16</sup>  
2 where we, TVA, are the only participant. If we are,  
3 then we are in the wrong place to be working.

4 These are objectives for our targeted  
5 watershed initiatives. What we want to do is make a  
6 measurable difference in water quality either by  
7 improving water quality or by preventing any  
8 degradation or decline in pressures that could be  
9 putting water quality at risk.

10                   We look at both stream conditions and  
11   reservoir conditions in selecting where we focus our  
12   efforts. In a little bit I am going to talk to you a  
13   little bit more about how we go about selecting these  
14   efforts.

15                   Our second objective is really at the  
16   heart of what we do, and that's the partnerships,  
17   they are really critical to what we do in trying to  
18   improve water quality.

19                   Now, when I throw this up here, this  
20   list of our partners, I really kind of hesitate in  
21   doing that because we work with many people across  
22   the Valley that represent really diverse interests.  
23   Watershed work is really highly varied and location  
24   specific. Each community has a different set of  
25   issues and stakeholder interests, but these are kind  
1   of the typical kinds of partners that we frequently  
2   work with. So I am going to kind of go through this  
3   list about what they do and how they are of value to  
4   us.

5                   The first of these is the locally  
6   based coalition. These groups often incorporate a  
7   mix of stakeholder -- stakeholders that are  
8   representing varied interests and different points of

9 view. They can have an enormous impact for us in  
10 that they are already in tune with their communities  
11 and they know what their local needs are.

12 The Little River Water Quality Forum  
13 and the Hiwassee River Watershed Coalition are really  
14 two great examples, and you're going to hear more  
15 from both of those groups later today.

16 State water quality agencies are  
17 really important for us to work with. They are the  
18 groups that are responsible for water quality  
19 standards and assessment and planning -- watershed  
20 planning on a broad scale within each -- within their  
21 state agencies across the states. They bring a lot  
22 of technical expertise to the table, and they can  
23 also bring the funding mechanism for us in these  
24 local areas that we work in.

25 The Soil and Water Conservation

1 Districts are governed by boards composed of local  
2 citizens working in cooperation with the U.S.

3 Department of Agricultural Natural Resource

4 Conservation Service. They provide the strong

5 connection to the landowners, particularly in the

6 rural and agriculture areas. They also have access

7 to the funding sources, and they also have a lot of

8 expertise in designing projects to implement on the  
9 ground for reducing pollution.

10 The resource conservation and  
11 development councils or the RC&Ds also help the local  
12 and county governments and the local nonprofit  
13 organizations in planning and implementing many  
14 conservation programs.

15 The RC&Ds a lot of times are the means  
16 for applying for and administering a lot of the grant  
17 fundings that we can get into these local groups.  
18 Like the Soil and Water Conservation Districts, they  
19 are really an integral part of the U.S. Department of  
20 Ag's conservation programs.

21 The local water supply and wastewater  
22 utilities have a keen interest in the local water  
23 quality, and they carry a wealth of knowledge of the  
24 day-to-day challenges of the water quality issues in  
25 their areas. They often contribute a lot of the  
1 analytical services that we need, and they also have  
2 that strong connection to the local community  
3 leaders.

4 Increasingly, our local governments  
5 and planning authorities are becoming really valued  
6 in the -- in what we do. Urban growth and the

7 conservation conversion of land from agriculture to  
8 residential and commercial use is really starting to  
9 have an impact on water quality. Once you get these  
10 folks on board, they are becoming more important in  
11 how to deal with urban water quality type issues.

12 Then we have the conservation  
13 organizations, such as the Nature Conservancy, Trout,  
14 Unlimited, Isaak Walton League. These groups provide  
15 a strong commitment to the environmental protection  
16 on specific areas of issues. So, again, these are  
17 just the kind of types of partners that we deal with.  
18 We have a whole host of partners that we deal with.

19 So I have talked about kind of what  
20 our watershed initiatives are and who is usually  
21 involved. Now I kind of want to go into what does a  
22 watershed initiative really look like and how do we  
23 go about initiating one of these initiatives.

24 And the first thing that we look at is  
25 this concept of targeting, how do we know where we're  
1 going to go work in developing initiatives. Because  
2 if you can imagine that we have got a watershed of  
3 41,000 square miles, there's a lot of places that TVA  
4 could work. However, we want to make sure that where  
5 we do go work there is that possibility of success.

6 We really want to go to where we put our money in  
7 we're going to get some results out of it.

8           So to start out, we use TVA's  
9 monitoring data to select our priority areas of where  
10 we want to work. We collect reservoir water quality  
11 data on a two-year cycle. This information is used  
12 to generate reservoir ratings which we use to target  
13 our work.

14           We also collect fish community data at  
15 over 500 sites around the Valley at different stream  
16 locations, and this type of information is also used  
17 to help us target where we're going to work.

18           This is an example of some of our  
19 reservoir data from one of our websites. This is the  
20 results of Chatuge reservoir, which many of you know  
21 is in the North Georgia and North Carolina area.  
22 This slide shows the ratings of five components of  
23 our reservoir monitoring program, as well as the  
24 overall rating which you see in the graph below. It  
25 shows also the historical trends that happens on the  
21 reservoir.

2           So if you go out to the website and  
3 look at this further information it can provide you  
4 further information, as well as what our

5 interpretation of the data says.

6           So some of the year-to-year changes on  
7 Chatuge I need to kind of point out could be a result  
8 of varying precipitation and runoff. However, we do  
9 see a trend in increasing chlorophyll concentrations  
10 at both sampling locations on Chatuge. And this has  
11 been -- we have been seeing this since TVA began  
12 monitoring in the early 1990s. So this implies that  
13 there's nutrients that are entering the reservoir,  
14 which is having an adverse impact on the reservoir.

15           So based on this type of data, Chatuge  
16 became one of our watershed initiatives that we  
17 wanted to target. And also, we had a good coalition  
18 there that we were able to work with, which is the  
19 Hiwassee River Watershed Coalition. So we had the  
20 problems -- water quality problems, plus a really  
21 good partner to work with. So that's how we went to  
22 Chatuge.

23           So I want to kind of now talk about  
24 what goes into an initiative. We have a lot of  
25 components that we look at in trying to be successful  
1 in our initiatives. The first one that we want to do  
2 is once we have targeted an area, we want to try to  
3 develop that local capability to make sure that the

4 partners there can be able to act and make -- start  
5 taking action to make improvements.

6           So what we try to do is help our  
7 partners to gain an understanding of the water  
8 quality issues and help them to develop the skills  
9 that are needed to develop funding proposals and also  
10 to be able to manage on-the-ground projects.

11           So before we can solve the problem  
12 though, we have got to be able to know where the  
13 problem is coming from. So we have got to try to go  
14 in and look at the causes, where it's coming from,  
15 how does the human interaction deal with -- interact  
16 with the environmental consequences that's going on.  
17 So we work with the partners, again, to gain that  
18 understanding of all of this.

19           So once we have the capabilities  
20 developed with our partners, as well as we know where  
21 the problems are coming from, all of this combined,  
22 we can put that into an action plan.

23           So these plans, once we get those  
24 plans developed, they are the ones that tells us  
25 where we need to act, what kind of funding we need to  
1 be able to take care of the problems and, you know,  
2 what other technical resources are needed to be able

3 to start addressing the issues.

4 Then the next thing that comes is,  
5 okay, now you have got your plan in place, how are  
6 you going to go about funding a lot of these  
7 on-the-ground improvements because a lot of times  
8 these take quite a bit of money?

9 TVA's annual investment in our  
10 watershed initiatives is about one and a half million  
11 dollars a year. A lot of our partners put in a lot  
12 of staff time, and they also put in a lot of money.  
13 However, that's generally not enough to really get  
14 the job done. So that's where we start looking for  
15 grant funding and other opportunities to be able to  
16 accomplish what we want to do out there on the  
17 ground.

18 Many of the areas that we go looking  
19 for are well established programs, such as storm  
20 water management efforts. Department of Agriculture  
21 has a lot of funding efforts, as well as EPA. So we  
22 try to target those areas to find funding to put on  
23 the ground for improvements.

24 One of the things we're finding is  
25 that across the country everybody is starting to get  
1 into watershed improvements. So the competition for

2 a lot of these limited resources are becoming really  
3 more and more stiff. So what we're having to do is  
4 really make sure that our efforts are really sound  
5 and that we can demonstrate the capability of really  
6 making improvements.

7 So when we look at our initiatives  
8 with our partners, we have to make sure that our  
9 efforts are credible, they are effective, and that we  
10 can show that we have a good probability of success.

11 So what it all comes down to, it's  
12 very important that our partners are really at the  
13 table, and what we're really finding is that only one  
14 agency or one group can't solve the problem by  
15 themselves. It takes that diverse group together to  
16 be able to make the improvements.

17 This is a map that shows all of our  
18 current watershed -- water quality initiatives, and  
19 they are all different colors, but what we have is  
20 306 different initiatives all across the Valley.  
21 Some of these are in different stages of development  
22 and some are in a later stage. That's why you see  
23 different colors. It may be kind of hard to see back  
24 there.

25 What we do is we have all of these

1 initiatives. We look at them on a year-by-year basis  
2 to see if anything has changed. Is there any new  
3 opportunities that have arisen? Have we completed  
4 what we need to do in those areas? So we take a look  
5 at each initiative in each of our areas and determine  
6 whether we need to move on or continue with our  
7 multi-year opportunities.

8 We are really starting to see some  
9 good results. What you see up here, all of the --  
10 kind of the breakout of the Valley is 611 hydrologic  
11 units or their small watersheds, and that's what --  
12 we take these hydrologic units and we rate the units  
13 from good, fair to poor. All of this good, fair and  
14 poor is based on our ecological ratings from our  
15 stream conditions and reservoir data that I talked  
16 about earlier.

17 From 1999 through 2004 we have seen  
18 the number of hydrologic units that rated from fair  
19 to good has raised and increased from 491 to 516.  
20 Now, I would like to take credit that it was all our  
21 efforts that made all of those improvements, but we  
22 can't take that efforts (sic). However, we are  
23 convinced that the partnership efforts are playing a  
24 major role in water quality improvement across the

25 Tennessee Valley.

26

1                   While the watershed initiatives are  
2 widely distributed across the Tennessee Valley, our  
3 clean marina initiative is really focused on  
4 individual marinas on our river system.

5                   As I did before, I am going to kind of  
6 give you an overview of our clean marina initiative,  
7 and then later today we're going to have somebody  
8 talk about how this is working in Swain County, North  
9 Carolina.

10                   As you can imagine with the Tennessee  
11 River, there's many opportunities for boating  
12 opportunities across the river system. When we have  
13 watercraft from canoes all the way to the big  
14 cruisers, you can imagine what the impact that this  
15 could have on water quality.

16                   So to help reduce those impacts of  
17 boating activities on water quality, TVA created the  
18 Tennessee Valley Clean Marina Initiative. It's a  
19 voluntary action and it relies on partnerships with  
20 marina owners and the boating public.

21                   Our aim here is to reduce the water  
22 pollution. What we're trying to do here is reduce  
23 the water pollution and erosion from marinas. While

24 marinas don't really -- are usually not major sources  
25 of pollution and erosion, we have found that cleanup  
1 efforts by marinas can have -- make a difference. <sup>27</sup>

2 What we do is try to help marina owners and boaters  
3 to better understand what -- the impacts that they  
4 have on the water out there.

5                   There's seven elements in the clean  
6 marina initiative. Each of these must be addressed  
7 by the marina in order to be able to gain  
8 certification and be able to fly that clean marina  
9 flag.

10                   As you can imagine, sewage management  
11 can be really challenging for marinas. When you have  
12 marinas that are on the water, they rarely have  
13 access to sewers, and really on-site waste management  
14 can be really difficult for them.

15                   When you think about fuel handling,  
16 this always occurs on the water or very near it.  
17 Spills are always a threat. Marinas really have to  
18 be able to concentrate on spill prevention, as well  
19 as be able to react and be able to respond when  
20 spills really do occur.

21                   Solid waste and petroleum recycling  
22 and disposal, it takes on an added significance

23 because of its proximity to the water.

24 Vessel repair and maintenance, you  
25 know, when you're doing that kind of work you're  
1 dealing cleaners, solvents, paint, which, you know, 28  
2 if it gets into the water can be very harmful to  
3 water quality.

4 Marina siting, design and management,  
5 this is something that could either contribute to the  
6 problem or it can be a part of the solution. So  
7 siting and design is something that we evaluate  
8 through the program. As with any operation, you  
9 know, storm water runoff from parking lots and  
10 construction areas, you know, really has a potential  
11 to impact water quality.

12 Then one of the last things is being  
13 informed is really critical. Sharing the information  
14 with boaters about how their actions can affect water  
15 quality really helps to change behavior. They need  
16 to be aware of the techniques available to them to  
17 help minimize the impacts to their boating on the  
18 water.

19 So all of these issues, seven  
20 components are addressed in the Clean Marina  
21 Initiative. So when a marina operator accomplishes

22 clean marina certification, it's really something  
23 that they can be proud of.

24           TVA has developed a guidebook that has  
25 all of this information in it. It outlines the best  
1 management practices that helps them minimize  
2 pollution, erosion. It also has all of the federal  
3 regulations in it and more information. This guide  
4 book is available out on the TVA website or each of  
5 the watershed teams has access to the guidebook.

6           The program certifies marinas that are  
7 in compliance with the pollution control standards  
8 and allows them to use the clean marina logo and the  
9 flag. For marina owners it makes really good  
10 business sense to protect the resources in which  
11 their livelihood depends on.

12           This is a program that really kind of  
13 took off for us. We were really surprised at the  
14 response that we have had. As of August 1 we have 45  
15 marinas that are flying the clean marina flag.

16           One of the things on this is that  
17 after a marina achieves certification, it's not over  
18 for them. They must be recertified every four years  
19 to make sure they are still meeting the standards set  
20 forth within our certification program.

21                   So with that I have kind of given you  
22   an overview of two of our water quality improvement  
23   programs that really rely on partners. We think  
24   these are good examples of what can be done through a  
25   voluntary action and collaboration, and this is  
1   really the thrust of both of our programs is that                   30  
2   partnership effort.

3                   Later today you are going to hear from  
4   three other speakers that talks about more specifics  
5   on what these partnerships do from the water quality  
6   and clean marina standpoint. So with that, I am  
7   going wrap up. I don't know if there's time for  
8   questions.

9                   CHAIRMAN BRUCE SHUPP: You have time  
10   for questions if anybody has any for Buff.

11                   Karl.

12                   MR. KARL DUDLEY: How many marinas are  
13   there in the TVA area?

14                   MS. BUFF CROSBY: There is 230 marinas  
15   across the Valley. Now, we don't expect that all 230  
16   could be certified because there's some that are  
17   really small and they may not have the financial  
18   wherewithal, you know, but we're not going to take  
19   them off the table to say they can't be. We would

20 like to focus hope that maybe 230 could be certified.

21 MRS. ROSEMARY WILLIAMS: Do you have  
22 more information available on the clean marina  
23 program and how to initiate that?

24 MS. BUFF CROSBY: Yes. Yes. Each of  
25 our watershed teams work to focus on the marinas out  
1 there. They kind of talk to all of those marina <sup>31</sup>  
2 owners on an annual basis and try to pursued them to  
3 go this route.

4 CHAIRMAN BRUCE SHUPP: Jim.

5 MR. JIM JARED: Buff, could you expand  
6 on the chlorophyl of the Chatuge Reservoir?

7 MS. BUFF CROSBY: Of the chlorophyl?

8 MR. JIM JARED: Yeah.

9 MS. BUFF CROSBY: I don't know if I  
10 can do that. I will see what I can do. What we're  
11 seeing on some of these reservoirs is that as  
12 increased nutrients flow into the system, the  
13 chlorophyl levels are starting to rise. So that's  
14 where we're targeting and trying to prevent the  
15 runoff from going into the river system.

16 MR. JIM JARED: Is that from  
17 fertilizers and --

18 MS. BUFF CROSBY: It can come from a

19 whole host of things, from, you know, fertilizers  
20 from your lawns, from agriculture, you know, a wide  
21 variety of areas, but it's primarily probably the  
22 fertilizers.

23 MR. JIM JARED: Thank you.

24 CHAIRMAN BRUCE SHUPP: Greer.

25 MR. GREER TIDWELL: You talked about  
1 TVA would like to take credit for all the  
2 improvement, I don't really think you really meant  
3 that, but I would like to hear what you think TVA's  
4 role is or has been in sort of this trend of  
5 watershed initiatives that you mentioned.

6 Do you think TVA has been or intends  
7 to be a leader in that or competitor in that or a  
8 collaborator in that? Where do you think your role  
9 is?

10 MS. BUFF CROSBY: Yeah, I think we  
11 have been a leader, and Bridgette may want to respond  
12 to that, but I think we have been really focused on,  
13 you know, not just going out there and saying, we  
14 want to improve water quality here. We have taken a  
15 really methodical step in how we focus on where we  
16 work.

17 We recognized several years ago that

18 we can't do it by ourselves. There's not enough  
19 money out there to improve water quality. You have  
20 to have those grassroots folks to help you do it. So  
21 in trying to work with the public and get that  
22 awareness out there, I think we have been a leader in  
23 there. So Bridgette wants to --

24 MS. BRIDGETTE ELLIS: I always look  
25 for this opportunity. Yeah, I think we are one of  
1 the leaders, and the reason I think that is because 33  
2 EPA Region IV is coming to us now and they like the  
3 way that we do our watershed approach to planning for  
4 water quality improvements.

5 And, in fact, they have invited us now  
6 to come to their national meeting to talk about the  
7 way that we're actually doing our watershed approach.  
8 So I think Region IV has recognized that we are  
9 looking at it from a voluntary standpoint and getting  
10 locally based coalitions moving to improve water  
11 quality. So, therefore, they want us to take that  
12 and help them benchmark basically that type of model  
13 nationwide.

14 MR. GREER TIDWELL: One of the  
15 partners I was hoping to see in your list of partners  
16 is TVA's own contractors. In particular, I think

17 about the line maintenance contractors and the stream  
18 crossings and problems that I have seen in the past  
19 there. It's a little bit outside the scope of what I  
20 think you were targeting with this presentation, but  
21 what do you think the role is of your own contractors  
22 in reference to partners for water -- watershed  
23 quality?

24 MS. BRIDGETTE ELLIS: Well, I think  
25 it -- I think we do work with them. In fact, you  
1 know, we have developed a best management practice 34  
2 guidebook for them on stream crossings and a lot of  
3 those different type of things to work not only with  
4 the transmission folks but their contractors that are  
5 actually doing either construction or maintenance.  
6 So I think we are playing a role with them to improve  
7 how they do their work, whether it's construction or  
8 it's the maintenance programs.

9 MR. GREER TIDWELL: Have you seen  
10 examples where they have really taken an active role  
11 in the community in terms of watershed management?  
12 Have you seen any of them step up to the plate?

13 MS. BRIDGETTE ELLIS: Not really on  
14 the community level as much as I think we help play  
15 that role for them instead of them working on that

16 because they're, you know, about trying to make sure  
17 that we're keeping the lights on and we're not having  
18 the danger trees and those types of things. So we  
19 try to play that role working with them and working  
20 with the community partners.

21 MR. GREER TIDWELL: I mean, there's a  
22 lot of industries that are about either making a  
23 widget or putting power out there who are also  
24 stepping up to the plate to be leaders, just like TVA  
25 has been. It seems to me like encouraging some of  
1 your contractors to take a little more of a 35  
2 step-out-in-front leadership role might establish an  
3 example that others can follow.

4 MS. BRIDGETTE ELLIS: Okay.

5 CHAIRMAN BRUCE SHUPP: Ken.

6 MR. KENNETH DARNELL: How have your  
7 marina operators accepted this program and do you  
8 provide any financial incentives for cooperation?

9 MS. BUFF CROSBY: Most of the marina  
10 operators are really accepting it. A lot of them --  
11 particularly a lot of the new ones coming on board,  
12 they are really buying into it so they can construct  
13 their marinas along this line. A lot of those  
14 marinas that -- they are really interested, but

15 sometimes from a financial standpoint it may take  
16 them a little while longer to get there. We are  
17 really surprised at how they really have embraced it.

18 As far as financial incentives and  
19 stuff, it depends on where we're at, whether we will  
20 give some incentives. A lot of times the type of  
21 incentives that we provide is help provide, you know,  
22 spill prevention kits or boating type kits just to  
23 try and build that awareness that these are the type  
24 of things that you ought to have as standard  
25 practice.

36

1 MR. TOM VORHOLT: Just a quick  
2 question. You showed the information on Chatuge, did  
3 you say that that information is available on the  
4 website for the other reservoirs?

5 MS. BUFF CROSBY: Yes.

6 CHAIRMAN BRUCE SHUPP: Phil.

7 MR. PHIL COMER: I am under the  
8 impression that TWRA provides money to help marinas  
9 put in pump-out stations, is that correct? Are you  
10 aware of that?

11 MS. BUFF CROSBY: Yes. Yes, I believe  
12 they are.

13 MR. PHIL COMER: And it's

14 substantially the total cost of putting in the  
15 pump-out station at a marina, 75 percent?

16 MS. BUFF CROSBY: I think it's  
17 75 percent.

18 MR. PHIL COMER: I am a good lip  
19 reader. And as a result of accepting that money, the  
20 marina operators cannot charge more than \$5 per  
21 pump-out, otherwise they would charge \$500 per  
22 pump-out, but it's limited to \$5 to encourage boaters  
23 to avail themselves of the pump-out. I think that  
24 should be mentioned that that's not TVA money, but  
25 that's significant funds available from TWRA.

1 CHAIRMAN BRUCE SHUPP: Greer, are you 37  
2 still up there?

3 MR. GREER TIDWELL: Yeah. I had  
4 another question on another line of inquiry. The  
5 river operation study process, you know, had a lot of  
6 public awareness in comparison to those kind of  
7 things, somewhere in the neighborhood of 20,000  
8 direct contact points, if I remember.

9 Has there been any measurable impact  
10 in terms of community awareness, activity level,  
11 interest level, a tax that you have seen in your  
12 watershed groups that may be associated with that

13 process, that community outreach process that was  
14 part of the ROS? Have you guys been able to see any  
15 real impact from that?

16 DR. KATE JACKSON: Do you want me to  
17 take that one?

18 MS. BUFF CROSBY: Yes.

19 DR. KATE JACKSON: I think -- I  
20 wouldn't necessarily say that the fact that people  
21 came out and commented on the Reservoir Operations  
22 Study actually has caused them to become more greatly  
23 aware of water quality opportunities, but I do think  
24 that the outreach that we are doing on the website,  
25 there's a lot more data there, it's updated more  
1 frequently about the flows, the releases, the water  
2 quality, all of the fish sampling, it's all on the  
3 web, that provides them tools for maintaining that  
4 awareness.

38

5 So it helps us, I think, and the  
6 partners who are out there trying to develop  
7 coalitions and partnerships to continue some  
8 momentum, but it's not clear to me that there's a  
9 causal link there.

10 The people who were involved in the  
11 Reservoir Operations Study were involved because of

12 the public benefits or personal benefits of being  
13 involved in the Reservoir Operations Study, and it's  
14 a little bit different with water quality improvement  
15 activities. There's a lot of interest in  
16 communities, but, again, it's not system awareness,  
17 it's local interest and investment of time to improve  
18 water quality.

19                   And one of the things that I don't  
20 know that Buff emphasized as much as I would  
21 emphasize, one of the really important things about  
22 having these coalitions and partnerships is that the  
23 quality -- the water quality improvements that you  
24 get can be maintained if the local communities grab  
25 hold of those and they're their improvements. They  
1 are not our improvements. They are going to live <sup>39</sup>  
2 with that water quality whether it's good or bad.  
3 It's not us.

4                   We can provide, you know, technical  
5 tools to pull on levers, but the local activists and  
6 the local communities have to really maintain those  
7 improvements so that we can withdraw our investment  
8 and go put it on another one of those hydrologic  
9 units that's in trouble. So it's an awareness thing.  
10 It -- it didn't electrify the communities to go out

11 and do water quality activities, certainly.

12 Does that answer your question?

13 CHAIRMAN BRUCE SHUPP: Any more  
14 questions for Buff?

15 Thank you.

16 We had another member arrive. Mike,  
17 why don't you introduce yourself?

18 MR. MIKE BUTLER: Mike Butler with the  
19 Tennessee Wildlife Federation.

20 CHAIRMAN BRUCE SHUPP: We only have  
21 one member that's not going to be able to make it  
22 this meeting, and that's outstanding. This is one of  
23 the best attended Council meetings we have had in  
24 years, and I thank you all for coming.

25 For Don and Tommy Ed, the way to get  
1 recognized during the question-and-answer session, <sup>40</sup>  
2 what we have been doing is do this so the Chair can  
3 see that you have a question or a comment, and that's  
4 the way we do it without having to wave your hand.  
5 Please take it down when you're finished because,  
6 otherwise, we come back to you.

7 Okay. Now we're going to hear about  
8 the reservoir releases improvement program with Chuck  
9 Bach.

10 Chuck.

11 MR. CHUCK BACH: Thank you. I  
12 appreciate the opportunity to give you an update.  
13 This meeting is focused on a couple of issues,  
14 recreation, water quality, and the RRI program  
15 touches on both of those. The RRI program has  
16 improved water quality below dams and it's greatly  
17 increased the amount of tailwater fishing below our  
18 dams.

19 TWRA did a survey and found that in  
20 2005 approximately 130,000 separate angling trips  
21 were made in Tennessee and below four of our heavily  
22 fished dams, Wilbur, Norris, South Holston,  
23 Appalachia, typically there's 20,000 each at those  
24 dams. So we must be doing something right here.

25 What I would like to talk about today  
1 is a little bit about how dams can affect downstream<sup>41</sup>  
2 water quality, bring you up to date on what we have  
3 done, the technologies we have implemented and  
4 installed, and then the improvements we're continuing  
5 to make because of the changes in the reservoir  
6 strategy.

7 Two of the principle effects when you  
8 impound water are listed up here, low dissolved

9 oxygen and dry riverbeds. It is not unique to TVA.  
10 Most hydropower plants probably have the same kind of  
11 problem that they do to deal with.

12 How does this come about?

13 In the summertime the lakes will  
14 stratify. You get warm water on the top, cold water  
15 on the bottom, no longer will it mix. Organic  
16 material comes into the reservoir and uses up the  
17 oxygen in the lower levels, and that's typically  
18 where our turbines pull water from. So as the  
19 turbines run, it would pull low dissolved oxygen  
20 water downstream into the tailwater, and, of course,  
21 that's not good for fishing and the fish community.

22 The other is we would only run the  
23 units to generate electricity, and as a result you  
24 would end up with dry streambeds, again, not  
25 conducive to the aquatic habitat. It affects the  
1 health and numbers of fish and all of that stuff. 42

2 So we put together a program called  
3 the Reservoir Release Improvement Program, RRI, to  
4 deal with these two. Our objectives are to meet  
5 dissolved oxygen targets and maintain a wetted  
6 riverbed.

7 We started looking at improving water

8 quality back in the 1970s. We put some diffusers in  
9 up at Ft. Pat. They were not very successful. We  
10 continued to work on them, put a weir in at Norris in  
11 the mid '80s. We have done something called turbine  
12 venting that I will come back and talk about.

13 We got together in the late 1980s with  
14 agencies, the public stakeholders and others and put  
15 together a program that we called the Lake  
16 Improvement Program. We tried to look at those two  
17 items that I talked about, low dissolved oxygen and  
18 maintaining a wetted streambed.

19 Starting in 1990 we put this program  
20 together, and you can see what we did up here, and we  
21 completed that in 1996 and developed a whole bunch of  
22 new technologies associated with this.

23 We set targets so we knew where to aim  
24 at. For example, the first one is Appalachia, 200  
25 CFS, cubic feet per second, with a dissolved oxygen  
1 level of 6 milligrams per liter. Look at Boone, for  
2 example, a couple down, it's 404 milligrams. The  
3 difference between 6 and 4 milligrams is whether it's  
4 a cold or a warm water reservoir. If it's a cold  
5 reservoir like Norris, it's 6 milligrams. If it's  
6 warm, it's 4. So that's how we sat the targets

7 there. And then the minimum flows were based on  
8 keeping the riverbeds wet.

9                   You will notice that Fontana and  
10 Hiwassee have NA's, and the reason for that is the  
11 downstream dams backup and keep the riverbed wet. So  
12 you don't need to set a target there.

13                   How do we go about doing this?

14                   We use three different methods listed  
15 here, and I will talk about these three next. The  
16 first is turbine pulsing. The picture on the upper  
17 left is what the riverbed would like before we  
18 started turbine pulsing and then the one on the lower  
19 is afterwards. We pulse our turbines on a regular  
20 basis to maintain that wetted riverbed. We do this  
21 at ten dams, I believe, right now.

22                   Another technology we use is small  
23 hydro units. If I can direct your attention to the  
24 upper picture, this is our Nottely plant. On the  
25 right you see the crane at the large unit. The small  
1 unit is on the left. The small unit is basically a  
2 pump that we have turned and operate backwards and  
3 generate electricity at half a megawatt, but it also  
4 provides flow when the large unit is not running.

5                   Down at the bottom you can see we have

6 added a bunch of stairsteps. So as the water comes  
7 down, it naturally aerates. So we gain water to  
8 maintain flow and also improve dissolved oxygen at  
9 the same time.

10 And another way we use is weirs. This  
11 is the Chatuge weir. They talked about Chatuge in  
12 the previous talk. This is down below the dam. We  
13 pulse into that river or weir pool above it every so  
14 often. We have a bunch of pipes in it that maintain  
15 flow so we maintain a constant flow. The lower one  
16 is the South Holston weir. It does the same thing.

17 We get two benefits out of this,  
18 maintain the minimum flows, and also, gain dissolved  
19 oxygen as it falls over the top, and I will talk a  
20 little bit more about that.

21 The Chatuge weir is an interesting  
22 one. We have a patent on it after we designed and  
23 developed it. It continues to work real well. So if  
24 you go down below the weir, the dissolved oxygen in  
25 the water is really good.

45

1 Some other technologies we use for  
2 maintaining dissolved oxygen are listed here, and I  
3 will talk a bit more about these as we go through  
4 them. What we try to do is start out with the least

5 costly one when we implement these and then work our  
6 way down, and it changes depending on each dam and  
7 each reservoir. You have to go in and do some  
8 analysis and make decisions on it.

9           The first one I would like to talk  
10 about is turbine venting. I'll direct your attention  
11 to the top right, there is the runners that's being  
12 brought into Norris Dam. Then the big picture is an  
13 engineering cross-section showing a cut across that.

14           The main thing I want to point out  
15 here is the different colors. We have implemented  
16 technology that allows us to bring air into the unit  
17 in different ways. For example, the blue one down  
18 the middle, central. The green ones, diffuser edge  
19 technology, and we can bring air in four different  
20 ways there.

21           Not all units can use turbine venting.  
22 When the tailwaters get high they don't bring in as  
23 much air. So you have to look at how high is the  
24 tailwaters compared to the unit and things like that.

25           We have this technology employed at  
1 nine of our dams right now. It's the first one we  
2 turn on when we need dissolved oxygen. It's just  
3 open a valve and close it.

4                   How do you know when to turn it on?

5                   We monitor downstream of all of our  
6 dams with electronic means. We collect the data  
7 every five seconds, and it's sent back over a local  
8 network. So we know on an operational basis where we  
9 are on dissolved oxygen. And when it starts to drift  
10 down, then we start implementing our different  
11 technologies.

12                   Another technology here is surface  
13 water pumps. Down at the bottom you will see  
14 something called the porous hose line diffuser, I  
15 will come back and talk about that in a second, but  
16 the main thing I wanted to point out here is the  
17 surface water pumps.

18                   These are like big ceiling fans,  
19 19 feet across. As you recall on that earlier slide,  
20 we have warm water at the top and it's not being  
21 mixed and it has relatively high dissolved oxygen.  
22 We turn these ceiling fans on, surface water pumps,  
23 and push this down to the units and it helps increase  
24 the dissolved oxygen.

25                   We do this at two of our plants,                   47  
1 Cherokee and Douglas. If you go up to the dam you  
2 will see these on the back side of the dam or the --

3 and they are hooked to the dam, and they have a  
4 unique system to allow them to go up and down as the  
5 water goes up and down, and they are a pretty good  
6 system to increase the dissolved oxygen.

7 Wrong way. Sorry.

8 So we get all of this oxygen. The  
9 other method we have is oxygen injection. Here you  
10 see a white tank where we bring in liquid oxygen and  
11 then change it into a vapor in these tall vaporizers  
12 and then run it on into the reservoirs.

13 Liquid oxygen comes in on  
14 tractor-trailers. We expand it and it increases in  
15 size 740 times, I believe it is. So it's beneficial  
16 to bring it in. It's cryogenic, minus 300 degrees,  
17 so we have to deal with all of those issues, but it's  
18 a real neat method to get oxygen out into the  
19 reservoir, and then when the turbines come on it  
20 pulls that downstream.

21 It's going backwards on me.

22 Here's a schematic showing the  
23 diffuser lines on the Cherokee Reservoir in 1994. We  
24 have two banks listed here, one right above the dam  
25 and then one further upstream. So as the unit runs  
1 and pulls water, it's pulling this relatively high

2 dissolved oxygen that we bubble out in the reservoir  
3 through these porous diffuser lines. Notice that  
4 there's 48,000 feet of diffuser line there. I'll  
5 talk about that a little later.

6 Another way we have of putting oxygen  
7 in the reservoir is the aeration weirs. This is a  
8 picture of the South Holston weir again. And as  
9 water flows over the top, it creates a natural  
10 aeration and you can see the bubbles right above the  
11 fishermen there where it's increasing, and this has  
12 turned into a real good trout fisheries there.

13 And two other systems we use are air  
14 compressors and upstream improvements. Air  
15 compressors we have at a couple of our plants, Tims  
16 Fords and Nottely. We have to watch there because if  
17 you put too much air in, air is made up of  
18 approximately 19 percent oxygen and 80 percent  
19 nitrogen, it gets super saturated with nitrogen and  
20 you have to watch that because the fish will breathe  
21 that in and that's not good for the fish. So we  
22 monitor for that, and when it gets too high we back  
23 off our air compressors. Upstream improvements, an  
24 example of that is we make changes or improvements at  
25 Boone and it effects Fort Pat.

1                   So those are some of the things we  
2     have implemented and done. And then as you're aware  
3     of, there has been a change in reservoir operating  
4     policy, and how it affects us in the reservoir  
5     release improvement is two ways.

6                   One, there's some changes in specific  
7     flows below dams. For example, at Appalachia we  
8     provide a continuous flow for a time period of June  
9     through November. We have increased the flow at  
10    South Holston, for example. And in addition to that,  
11    we have the system flow requirement.

12                  So how does that affect the reservoir  
13    release improvement program?

14                  This is a slide showing the system  
15    flow requirements at Chattanooga, and you see the --  
16    if it's below the minimum operation guide or above,  
17    these are the flows for the different times. So we  
18    took that information, analyzed it, modeled it,  
19    looked at it, what is the impact on our RRI program,  
20    and it was significant enough that we had to make  
21    some changes to maintain the gains that we have made  
22    before.

23                  So we put together a proposal, took it  
24    to management and they have approved it, and we have

25 a program that we're working on right now that will  
1 add improvements to 12 dams. They are listed here. 50  
2 It's a 17 million capital dollar improvement spread  
3 over three years and a 1.3 increase in annual  
4 operating costs.

5 It's a recognition that liquid oxygen  
6 costs and transportation costs and all other costs  
7 would go up. So they added that to my budget to  
8 ensure we maintained those gains that we've made.

9 The fun part, actually going out and  
10 doing all of this stuff. Here's an example of our  
11 Ft. Loudoun. The upper left picture is where we're  
12 putting in rebar. The upper right is pouring  
13 concrete. The lower left is what the pad looks like  
14 after the concrete is poured. Then the lower right  
15 is an example of the new tank that we brought in at  
16 Ft. Loudoun. It's a 21,000 gallon tank. That means  
17 we can bring four tractor-trailer loads of oxygen in  
18 and put in that tank. We have it there. Then when  
19 we need to turn it on, it gives the vendors time to  
20 restock us and things like that. So we have added  
21 double tanks to several of our sites.

22 We have also made improvements to our  
23 diffuser lines. Here's an example of where we're

24 building our diffuser lines at Tims Ford. Then we go  
25 out in a reservoir and sink these in the area where  
1 the turbines would be withdrawing. We put a lot of <sup>51</sup>  
2 diffuser lines out in the reservoir.

3 Here's a list of the plants by feet of  
4 aeration line. All together we have 36 miles of  
5 diffuser lines out there. The large ones, as you can  
6 see, are Watts Bar, Douglas and Cherokee.

7 If you remember in the slide earlier,  
8 I said Watts Bar back in '94 had 48,000. We  
9 continually try to improve our systems, and we have  
10 come up with a way to be more efficient and not have  
11 to put as many feet in. You see here at Cherokee  
12 it's about 42,000 feet, for example. It's one of the  
13 things we continue to do is try to look for ways to  
14 improve our systems.

15 So we do all of these goods things.  
16 We're good at designing, installing and putting stuff  
17 in.

18 Does it really make a difference?

19 The next few slides I would like to  
20 show you hopefully will show you that we are making a  
21 difference.

22 This is fish community response at

23 Douglas. It's the number of native fish species  
24 versus sample year. You can see when the  
25 improvements were initiated, and following the  
1 improvements you see an increase in the number of 52  
2 native fish species. I kind of view this as the less  
3 tolerant fish have come back and came into the  
4 reservoir. So we have increased there.

5 The next is stonefly, mayfly and  
6 caddisfly response at Blue Ridge. When I look at  
7 these three, these three have been described as the  
8 ice cream for game fish to me. So we like to look at  
9 these three. You see before the improvements, and  
10 after improvements you see some increases there.  
11 Again, these are the things that fish like to eat.

12 Here is a slide that -- I had a  
13 graduate student working for me and she put this  
14 together looking at the upper and middle reservoir  
15 sampling stations. She plotted it on a Log 10 basis.  
16 She looked at first before flow and DO on the left.  
17 In the middle when we make the flow changes, which  
18 were easy to make, you see an increase. Then after  
19 flow and after DO another increase, an indication  
20 that we are making a difference.

21 And macroinvertebrates are the bugs,

22 of course, that we're looking at in the reservoir  
23 that we go out and sample for.

24 Results, we have increased dissolved  
25 oxygen level concentrations in more than 300 miles of  
1 river downstream from TVA and improved water flows in  
2 180 miles of the river.

3 Some of the outcomes, improvements in  
4 tailwater, macroinvertebrates in fish communities.  
5 There's been mussel recovery in our tailwaters. We  
6 have gone out and reintroduced some threatened and  
7 endangered species. An example of that is below  
8 Douglas we have introduced, I believe, 26,000  
9 sturgeon below Douglas now.

10 Other people have recognized our  
11 program. The Wildlife Habitat Council has certified  
12 us. The National Hydropower Association has noted  
13 we're the outstanding stewardship, among others.

14 And in conclusion, we are setting the  
15 bars for others. Others are coming to us and asking  
16 us for help on putting in turbine venting.  
17 Particularly in the southeast and the midwest, we  
18 have gone to several plants to help them there.

19 It's important to note that we are  
20 continuing to vest in our improvements that both

21 benefit aquatic life and tailwater recreation and we  
22 are committed to maintaining our goals below TVA  
23 dams.

24 And with that, I conclude. I will be  
25 glad to answer any questions.

54

1 CHAIRMAN BRUCE SHUPP: Questions?

2 Don.

3 MR. DON GOWAN: Chuck, first I want to  
4 commend TVA for their water quality improvements. I  
5 spent too much of my teenage years on Watts Bar Lake.  
6 So I know the lake well.

7 I do have a question for you. Have  
8 you -- has TVA looked or tried to look at historic  
9 flow and then trying to mimic some of those historic  
10 flow rates through the Tennessee Valley System?

11 DR. KATE JACKSON: Do you want me to  
12 take that one?

13 MR. CHUCK BACH: I'm going to turn  
14 that to Wayne or Kate.

15 DR. KATE JACKSON: The answer is no.  
16 And the reason is because, I mean, as a lot of the  
17 environmental community says, as we put those slabs  
18 of concrete in, we have changed completely the  
19 ecosystem from a riverine based system to a series

20 essentially of reservoirs. So our activities now are  
21 to try to manage those reservoir based ecosystems to  
22 the best that we can, with the assistance of the  
23 states and the local folks.

24 CHAIRMAN BRUCE SHUPP: Questions?

25 Chuck, I would like to make a comment.

55

1 There's no question you deserve a lot of credit and  
2 TVA deserves a lot of credit for the improvements  
3 that you have shown the rest of the hydropower world  
4 that can be done, and among the conservation group  
5 community you're certainly held at a high example for  
6 what other utilities and water management agencies  
7 could do.

8 Is there any way to put a cost per  
9 unit of what this cost the power generation industry  
10 to do this?

11 MR. CHUCK BACH: Well, first of all, I  
12 appreciate the kind comments. As far as a cost per  
13 unit, I am not sure you can put one that would apply  
14 across the board because every situation is  
15 different. You have to go in and look at it and  
16 figure out what's the best, whether it's turbine  
17 venting or liquid oxygen or surface water pumps or  
18 weirs or whatever. So it's hard to say a certain

19 amount.

20 CHAIRMAN BRUCE SHUPP: How about a  
21 total percentage lost in generation -- generating  
22 capability?

23 MR. CHUCK BACH: I have never done  
24 that, but turbine venting, for example, reduces  
25 efficiency on our turbines by about 2 percent, for  
1 example. So when we run turbine venting, we lose 56  
2 2 percent times the cost of power, different times of  
3 the year, and that varies, of course. At peak times  
4 it's real expensive and then other times it's not.  
5 So it's really hard to put a unit cost.

6 CHAIRMAN BRUCE SHUPP: Okay. Jim or  
7 Austin.

8 MR. JIM JARED: Chuck, just curious,  
9 has the river temperature ever been so high that you  
10 had to curtail industrial use of the water? Has it  
11 ever approached this?

12 MR. CHUCK BACH: We have had to derate  
13 some of our power plants because the water  
14 temperature gets too high, in other words, cut back  
15 on generation so they don't generate so much heat and  
16 it to back in the water. But as far as industrial,  
17 I'm not aware.

18 DR. KATE JACKSON: That's not our job,  
19 that's the states'. So when there are NPDS permits,  
20 for example, those industries would self curtail or  
21 add cooling towers on, just the way we do, to be in  
22 compliance with their permits.

23 CHAIRMAN BRUCE SHUPP: Austin.

24 MR. AUSTIN CARROLL: It's good to see  
25 you, Chuck. We haven't seen each other in about  
1 what, 25 years or something like that? We used to  
2 work together. 57

3 MR. CHUCK BACH: ABC.

4 MR. AUSTIN CARROLL: Along the line of  
5 Bruce's question there, in regard to the improvements  
6 in the reservoir operating policy and guidelines and  
7 that type of thing, is the cost of that working out  
8 to about what we thought it was going to when, you  
9 know, that was studied and put in place? Do we have  
10 a sense of that?

11 MR. CHUCK BACH: I can't speak to the  
12 total cost. I can speak to my piece of the pie. And  
13 it came about because we made changes in the way we  
14 operated and then had to implement things to maintain  
15 those gains for the aeration side, but for the bigger  
16 picture I have got to look to Wayne or Kate.

17 DR. KATE JACKSON: I will answer, and  
18 then, Wayne, you can correct me. The answer is, yes,  
19 with one caveat, which is, of course, we had to  
20 analyze it sort of averaged over multiple hydrologic  
21 years. So there are some years that are wetter and  
22 some years that are dryer.

23 We got a slug of water at the end of  
24 last calendar year, which we are still benefiting  
25 greatly from. It has now stopped raining. We hope  
1 it starts again really soon, but, yes, it's within <sup>58</sup>  
2 that norm. I mean, there's going to be some  
3 hydrologic noise, if you will, but, yes, we were  
4 about right.

5 Did I do okay?

6 CHAIRMAN BRUCE SHUPP: Any other  
7 questions?

8 Mike.

9 MR. MIKE BUTLER: Would y'all take  
10 over Senate Hill Dam and put some of these things on  
11 Senate Hill Dam for use so we can have greatly  
12 improved trout fishery on the --

13 DR. KATE JACKSON: No. The Corps of  
14 Engineers have come to us and talked to us about  
15 helping them. Obviously, we want very much to do

16 that. However, Chuck's full. So we will do some of  
17 that on a cost-reimbursable basis, but we will  
18 absolutely not take over that project.

19 MR. CHUCK BACH: T.U. reminds us  
20 frequently about that.

21 CHAIRMAN BRUCE SHUPP: Greer.

22 MR. GREER TIDWELL: Chuck, you have  
23 had some questions about the cost of doing this, and  
24 I will kind of follow up on Austin's questions about  
25 how it's related to the estimates of cost.

1 How is it related to the estimates of  
2 the financial gain in these communities in terms of  
3 sport fisheries? There's a plus side to this as  
4 well. Are we above estimates, below estimates, right  
5 on target with estimates? Where do we fall in  
6 economic development?

7 DR. KATE JACKSON: He's looking at me  
8 again.

9 MR. CHUCK BACH: I am looking at Kate.

10 DR. KATE JACKSON: We don't track  
11 that. I mean, the local communities track that. You  
12 people that are, you know, the professionals in  
13 economic development do some tracking of that, but  
14 that's not a thing that we have the tools to track.

15 Do you want to say anything about  
16 that, Mike?

17 MR. MIKE BUTLER: It's very indirect  
18 measure, but Tennessee for two of the last three  
19 years has had over a million fishing licenses sold,  
20 and that's an increase over the last five years.

21 It's continued -- Tennessee has  
22 continued to bump and slowly increase over time,  
23 which if we didn't have fish to catch -- you know,  
24 Dale Hollow Lake, Watts Bar, those are some of the  
25 very attractive lakes to out-of-state people coming  
1 in. I know that we get a lot of traffic from Ohio <sup>60</sup>  
2 and from Indiana for people coming to fish.

3 CHAIRMAN BRUCE SHUPP: Phil.

4 MR. PHIL COMER: As an anecdotal  
5 response to that same issue on Douglas Lake, we have  
6 been so incredibly inundated by people from Michigan  
7 that I have asked Kate if she couldn't let more water  
8 out?

9 DR. KATE JACKSON: Okay. Let's just  
10 put it down in the record that Phil has asked me to  
11 lower the reservoir levels.

12 MR. PHIL COMER: It's been much too  
13 short a time span really to evaluate that. It's only

14 been a year. We were already being inundated by  
15 those people, so -- but we're very grateful for those  
16 people, too.

17 CHAIRMAN BRUCE SHUPP: Any other  
18 comments or questions?

19 Thank you, Chuck, very much.

20 All right. We're going to talk about  
21 now partnership water quality improvement efforts,  
22 and I'd like to bring up Nelson Ross who is -- is  
23 Nelson here?

24 Nelson is with Isaak Walton League and  
25 one of the prime movers and shakers of the reason  
1 we're going through this partnership meeting -- 61  
2 partnership evaluation today at our meeting.

3 Nelson.

4 MR. NELSON ROSS: Thank you. We  
5 appreciate Mrs. Jackson and Chairman Shupp and  
6 members of the Resource Council and TVA management  
7 for the opportunity to make this presentation today,  
8 and we especially appreciate the outstanding  
9 leadership and representation that Phil Comer has  
10 provided this region to its constituents. And also,  
11 the printing of the tour guide that TVA had provided  
12 for you today, we appreciate that service very much.

13                   Before proceeding I want to introduce  
14 members of our organization and contributing partners  
15 to the Williams Creek Restoration and Lake Management  
16 Program.

17                   David F. Smith, Chairman of our Board  
18 of Directors.

19                   Carl Rapp, Board Member and Vice  
20 President for Administration and Finance of the  
21 League.

22                   Bob Whitsell, Director of City of  
23 Knoxville Public Works. He is not here right now but  
24 will be joining the tour.

25                   David Hagaman, storm water manager,  
1 City of Knoxville is going to be joining too.                   62

2                   I see Mark from his department is  
3 here.

4                   Wayne Loveday, Director of K.U.B.  
5 Sewage Collection and Treatment Systems will be  
6 joining the tour.

7                   Mark Campen, Rob Toole, Charlie Farmer  
8 and Doug white of our Clean Water Center Staff.

9                   We're a membership conservation  
10 organization with offices on the Knoxville  
11 waterfront. We use common sense and work to solve

12 problems related to water, wildlife habitat and  
13 public lands.

14 This presentation will cover something  
15 about the league, our projects, goals and objectives.  
16 Note that urban streams contain many beautiful  
17 segments and also surprises, like the trout that we  
18 found during one water quality study on Second Creek.

19 In 1922 the league was formed in  
20 Chicago by people just like you. They were concerned  
21 about the water quality and fisheries. They felt  
22 that the problems could be managed and that our  
23 waters could be recovered. We now have 21 state  
24 divisions, 300 chapters in 33 states and 5,000  
25 members.

63

1 Our officers are staffed with young  
2 conservation professionals, each motivated in skills  
3 to serve its members and constituents. We invest  
4 some 48 hours per day in improving water quality in  
5 this region.

6 Our waters are polluted by three major  
7 causes, sewage, silt and trash. K.U.B. is addressing  
8 the sewage overflow problem with a ten-year \$540  
9 million accelerated sewage rehab project. Silt, pet  
10 waste, first flush off roads and roofs after rains

11 are the major causes of pollution in our water  
12 bodies.

13                   We install and maintain erosion  
14 control using best management practices and provide  
15 inspection services to contractors. We analyze the  
16 physical, chemical and biological properties of water  
17 using an Insitu Troll 9000 Multi Parameter Water  
18 Quality Meter, lab testing and aquatic life  
19 inventories.

20                   Our wetland management programs at  
21 Turkey Creek and Mossy Creek wetlands teach students,  
22 the general public about the importance of protecting  
23 watersheds to protect water quality and wildlife  
24 habitat.

25                   You will be provided a brochure on the  
1 Turkey Creek Wetland Park here in Knoxville at the  
2 conclusion of our presentation.

3                   Our staff assesses streams for fish,  
4 aquatic insects and stream habitat conditions using  
5 state-of-the-art techniques and equipment. The City  
6 of Knoxville storm water division has funded ten such  
7 studies on urban streams.

8                   Our staff assesses streams -- under  
9 contract with the City of Knoxville, Public Service

10 Department, under Bob Whitsell we have removed 60  
11 urban stream weirs to prevent stream bank scouring  
12 and flooding.

13 We conduct stream bank restoration  
14 projects from start to finish, including design,  
15 obtaining permits and operating heavy equipment. We  
16 have been granting contracts from the City of  
17 Knoxville Public Works to do stream drain maintenance  
18 studies and to work with volunteers to install creek  
19 trash skimmers that we construct from recycled milk  
20 jugs.

21 The City also helps to fund  
22 maintaining a no-trash zone on the Knoxville  
23 waterfront. We have installed seven skimmers that  
24 industrial grade, and these also were bought by the  
25 storm water division of Knoxville. They are quite  
1 expensive, but they do the job. 65

2 In the past five years we have removed  
3 some 4,000 bags of trash, and many tires,  
4 refrigerators, couches, mattresses, and you name it,  
5 that are floating in the lake and down other streams  
6 to impact the lake.

7 E. Coli group coliform colonies were  
8 tested at 12 sites down the 50 mile length of Ft.

9 Loudoun Lake. Lab work was provided by First Utility  
10 District in West Knoxville, and the E. Coli levels  
11 were found to be far below dangerous levels and  
12 positively safe for any water recreation.

13 We apply shoreline -- folks, I have to  
14 apologize, I got out of sequence there and was  
15 pulling my trigger, but I think you can follow where  
16 we were.

17 The E. Coli data down this -- we will  
18 do these studies at regular intervals and they will  
19 be posted on a web site that's being established for  
20 the lake association. That's more E-coli study. You  
21 see we have complete drafting and that kind of thing  
22 so people can follow the study.

23 We work with TVA and other water  
24 quality professionals to make sure that the data that  
25 we present to the public is sound. We apply  
1 shoreline hard armoring using stone riffraff to 66  
2 prevent shoreline erosion. Shown are a Holston River  
3 and Douglas Lake site where we have done such work.

4 We also use shoreline stabilization  
5 using natural resources like the wooded debris that  
6 you see in the photo to your left, and there's a  
7 before and after there where we have taken all of

8 that wooded debris and used a system of posts to cut  
9 it and marshal it against the shoreline as a hedge  
10 against pollution caused by boat wakes.

11 You note that Woody Farrell, a member  
12 of the Lake Management Team, has assisted us in this  
13 process, and we have worked with several of the  
14 watershed groups on the various water bodies in this  
15 region.

16 Floating debris, trash and dead  
17 animals present persistent water quality management  
18 problems to be solved on our area lakes. We have  
19 developed ways to effectively manage these problems.  
20 These problems are especially pressing in light of  
21 the development -- this rampant shoreline development  
22 in this area, the increases in boating and aquatic  
23 recreation and TVA's outstanding recreation strategic  
24 plan. Floating debris causes boat damage. It  
25 impacts docks and creates water safety problems for  
1 those who ski and wake board. 67

2 Each element discussed here today will  
3 combine to diminish water quality and the quality of  
4 life and economic development. It provides  
5 challenges for each of us to work together to protect  
6 and preserve our waters.

7                   In reviewing our tour, I won't go  
8 through all of these, we have one change in the tour  
9 schedule. We're going to combine stop four and five.  
10 It's a good location at Wee Williams Golf Course. So  
11 we will eliminate one time when we get on and off the  
12 bus.

13                   We ask you when we're entering the bus  
14 and exiting the bus to do so safely but also move as  
15 fast as you can to the presentation site in deference  
16 of time. We want to stay on schedule.

17                   I have noticed that Wayne Loveday from  
18 K.U.B. has arrived.

19                   Wayne, would you stand, please?

20                   Wayne directs K.U.B.'s sewage  
21 collection system and treatment system and will be  
22 part of our presentation today.

23                   Mr. Shupp, do we have time for  
24 questions?

25                   CHAIRMAN BRUCE SHUPP: Yes, we do.

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1                   Questions?

2                   Well, I have a question for you,  
3 Nelson. Should we take this with us to the --

4                   MR. NELSON ROSS: Yes. That was  
5 provided so you could have that as a guide. We have

6 each station manned by staff and we will have a large  
7 placard there that will guide our some five or so  
8 minute discussion at each of our stops.

9 CHAIRMAN BRUCE SHUPP: All right. Any  
10 other questions for Nelson before we go on the tour?

11 MR. NELSON ROSS: Thank you.

12 CHAIRMAN BRUCE SHUPP: Thank you,  
13 Nelson. We will see you on the bus.

14 MR. NELSON ROSS: Right.

15 CHAIRMAN BRUCE SHUPP: We have some  
16 administrative issues before we adjourn.

17 FACILITATOR DAVE WAHUS: You can leave  
18 all the rest of your materials here in the room.  
19 They will be secured while you're gone. If you  
20 choose to do so, you have time now for a restroom  
21 break.

22 I ask that you gather out in the front  
23 on the -- in the area -- excuse me.

24 So if you will be out front by 9:45,  
25 quarter to 10:00, which gives you about 14 minutes to  
1 take your break, then we will get started earlier and  
2 we will have a little bit more time for the tour.

3 Is there any questions?

4 And please bring this with you. You

5 should each have one of these in front of you. If  
6 you don't, let me know after we break and we will get  
7 you a copy.

8 CHAIRMAN BRUCE SHUPP: Okay. See you  
9 in the bus in 15 minutes.

10 (Recess for tour was taken, after  
11 which the following is the presentation of Mr. David  
12 Monteith, transcription starting after presentation  
13 started.)

14 MR. DAVID MONTEITH: \$24,766. Clean  
15 Water Management Trust, \$325,000. Little Tennessee  
16 Nonpoint 319 Money \$20,479, and this total was  
17 actually, instead of 479, 400 -- or \$760,000.

18 The FLWR Organization, we have had  
19 several public meetings. The first ones we started  
20 on this ordinance was in 2003. This was boat-dock  
21 owners and houseboat owners came to Swain County. We  
22 started talking about the problem with septic going  
23 into the water. And, you know, we found 100, 150  
24 people came to these meetings and nobody was opposed  
25 to what we were trying to do. Everybody wanted it  
1 cleaned up. 70

2 Steve Akers made the comment that he  
3 had never been to a meeting of houseboat owners and

4 boat owners that everybody agreed. Everybody agreed.

5 One of the only problems we had was  
6 50 percent or more of these people says we're not  
7 straight piping, we already are using Portapotties.  
8 So we really didn't believe that because of the  
9 samples.

10 So that year just happened to be a  
11 drawdown year. Before whenever we first started  
12 this, the year before this, we had already done  
13 crawled under the houseboats and found out you can  
14 see the toilet seats in over half of them. So we  
15 knowed that they were straight piping.

16 So when we began to call out their  
17 numbers of their houseboats, they got real humble, no  
18 problem, we will straighten it up. So, you know,  
19 people has been real willing to do this.

20 So Steve Akres, in 2004 had another  
21 public meeting with the FLWR Organization and  
22 houseboat owners, and they were just looking at the  
23 ordinance. Peter Whittaker, again, as I said, was  
24 the guy that rewrote this ordinance. We had one last  
25 year, or this past year, and that was to go over the  
1 new waiver that we had to let people know that the  
2 ones that did not set down had an opportunity to wait

3 until December 31st.

4 We're right now in compliance of about  
5 65 percent. People have signed contracts. These  
6 people will all be ready, 100 percent, by December of  
7 this year.

8 Our FLWR board consisted of myself,  
9 also David. Our Vice Chair was Alicia Parham. She  
10 is from Graham County Health Department. The  
11 Secretary is Carmaleta Monteith. She represents the  
12 Easter Band of Cherokee Indians. Our Treasury, Tony  
13 Sherrill over here. Tony is one of the local boat  
14 dock owners and really got things goes.

15 All right.

16 Also, members was David Crisp. He is  
17 also on that board. He is a boat dock owner from  
18 Graham County. Linda White, she is Swain County  
19 Health Department. David Sawyers, Chairman of the  
20 Partnership for Swain County and Bryson City, but  
21 also a local attorney that done all of our attorney  
22 work for us for free. Peter Whittaker is a houseboat  
23 user. Bill Schutters, Chairman of the Partnership of  
24 Bryson City and Swain County.

25 This was our first platform that was  
1 built in December of 2004, a little snowy, but this

2 was the first one that we was really proud that we  
3 had. Okay. Then in January, just a month later,  
4 still snow on the ground, we had our five finished  
5 platforms.

6 Max Crisp was our local contractor,  
7 lives in Graham County. This is the guy that does  
8 our tub grinding on the lake and helps us out also,  
9 but he was a licensed contractor and the state says  
10 it would be fine to use him. So we have five  
11 finished platforms in 2005, and each houseboat or  
12 each harbor will have a different color. We will  
13 talk about the colors of the seals and why we have  
14 chosen that in a few minutes.

15 Here is our platforms with septic  
16 systems. They have got a thousand gallon tank  
17 sitting in here. These are double wall tanks. This  
18 is also a 12-inch step-in. This is all sealed off.  
19 Also, if any poop or anything, and I call it poop,  
20 it's a polite way of saying it, but from keeping it  
21 in the water.

22 North Carolina says that we couldn't  
23 have these tanks, said they had never had any built  
24 in North Carolina and we cannot use these tanks. So  
25 we come up with the double wall tanks and said, well,

1 if we double wall it, can we do it?

2 And they said, well, we will think  
3 about it. They said, you need one more containment.

4 So that's when we come up, sealed it  
5 off with another floor under this, and this was  
6 sealed off. Then we asked them, you know, will this  
7 work?

8 They said, well, now we want a steel  
9 structure around here. So that's got a steel  
10 structure in case a boat runs into it.

11 So you have got all of this protection  
12 to protect literally poop, but you can take a  
13 thousand gallon gas tank, set it out on just a  
14 platform of the boat dock and there it sits for  
15 anybody to shoot and blow up and kill half a week's  
16 burying, you know, but this was so much more  
17 important to the state than floating gas tanks.

18 But we got the state to buy into  
19 everything we have done, and now these are going to  
20 go statewide because this is the first in North  
21 Carolina that's been done this way.

22 Okay. Jonathan Woodard, he was our  
23 engineer that designed the platforms, the tanks, the  
24 whole thing. He works for DOT. He's just a lake

25 user. He belongs to our Fontana Lake Users' 74  
1 Association. So it took him about three months,  
2 again, at no charge. You know, we was lucky. We had  
3 an attorney. We had engineers. We had contractors  
4 that's done all of this work for us, and Jonathan has  
5 done a super job of representing in Swain County and  
6 the State of North Carolina.

7 Okay. Ted Lyon came down with the  
8 Department of Environmental -- this is Ted here, with  
9 the Department of Environmental and Natural  
10 Resources, with DENR. And on this visit Bill  
11 Schutters, which is our partnership chairman, Ellen  
12 Monteith is my wife, Jonathan Woodard, again, was our  
13 engineer, and Chad, the other boy, was a member of  
14 the Graham County Health Department that works with  
15 Alicia just on there visit to see -- we was trying to  
16 get our license.

17 So here was Ted Lyon, again, with the  
18 Department of Environmental and Natural Resources  
19 signing our license. This is -- we had five people  
20 licensed in the State of North Carolina to pump poop  
21 on the water, nowhere else in North Carolina. If  
22 anybody was doing it, they were doing it illegal with  
23 a fine that could be as much as \$500 a day, according

24 to what Ted Lyon says.

25                   The first time he came here and he                   75  
1 found that Tony Sherrill was -- actually had been  
2 pumping for two or three years, the first word out of  
3 his mouth was, where did you get your license?

4                   Everybody got quiet, real quiet, like,  
5 what kind of license do you need? We began to tell  
6 him and he began talking about the fines that could  
7 be had. It scared us all to death, man. We thought  
8 we was going to be crucified for trying to do  
9 something good, but the state has really worked with  
10 us. They have got on board, supplied money, supplied  
11 people. And Ted is one of these people, he's been  
12 real helpful to us.

13                   We go to school once a year. We have  
14 got a class coming up next month at Western. They  
15 have to do this. The FLWR Organization pays for  
16 their schooling, about 800 bucks. Western has been  
17 good enough to donate us a spot, our food, fire,  
18 houseboat -- I mean, not for the houseboat owners but  
19 for the boat dock owners to go and get our training.  
20 So we're back to get training again this next year.

21                   And, of course, here's Steve Akers.  
22 Steve is -- he's the grandfather of all of us down

23 there. We just think the world of Steve. He's in  
24 our new Fontana Lake Waste Recovery Pontoon. We use  
25 this, as I said, as a backup boat for -- not only for  
1 cleaning the lake up but for cleaning out the septic <sup>76</sup>  
2 out of the water. We have a 50 gallon tank that we  
3 just set in with a pump and drop in if one of the  
4 other boats go out.

5                   And then Tom Massey with Clean Water  
6 Management Trust. Tom came in and visited. That's  
7 Tom sitting here. Woody Farrell, he came down for  
8 this visit. They want to see where their money was  
9 going.

10                   And again, here is Tom inspecting --  
11 this was Tom inspecting his boat. The tank -- this  
12 tank inside this boat is a 400 gallon tank, and then,  
13 of course, a thousand gallon tank.

14                   Alarka Marina is in Swain County,  
15 owned by Tony Sherrill. His harbor limit is 233.  
16 His harbor color is blue. And again, we will talk  
17 about harbors and the colors and why. This is the  
18 Alarka pump-out boat and his waste platform.

19                   Go ahead. This was Tony, just caught  
20 him a couple of weeks ago down fixing to start  
21 pumping this houseboat. Just to kind of let you see

22 what the process is, Tony pumps out of a houseboat  
23 into his 400 gallon waste holding tank. From there  
24 he has to go over and pump out of that waste tank  
25 into his thousand gallon barrel.

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1           Once that barrel is full of a thousand  
2 gallons, he takes that over to his boat dock and  
3 calls the local septic receiving man. He comes in,  
4 pumps it out of there, takes it to the receiving  
5 station and gets rid of it.

6           We accidentally -- I mean, we the FLWR  
7 organization, we pay. Whenever Tony has his full, it  
8 don't cost him. He calls us. He takes it over. We  
9 call the man. He comes in and we pay to have that --  
10 we have got money built into this grant to do this  
11 for five years to where the boat dock owners are out  
12 nothing, except doing this. They are even paid for  
13 their time.

14           We want all the boat dock owners to  
15 know exactly what it's costing for five years. Then  
16 when we turn it all over to them, the boats -- after  
17 two years the boats become theirs. The platform  
18 becomes theirs. These platforms are GPS'd by the  
19 state where they know where they sit. They can keep  
20 an eye on it all the time, and they do come. They

21 have already been down twice and inspected it this  
22 year.

23                   Okay. This is just a houseboat on  
24 Fontana Lake. I threw a couple of them in to let  
25 the people see what it is. This is a non-navigable  
1 houseboat. 78

2                   Go ahead. This is just another  
3 typical houseboat at Tony's dock.

4                   Okay. This is what the boat looked  
5 like when we got them in. They were unrigged. Of  
6 course, Tony come in here and put a 400 gallon tank  
7 in, put the motor on it. He done all the work on all  
8 of these boats at no charge to the organization.

9                   Tony runs a boat dock, caught it in  
10 the wintertime when everything come in. So he set  
11 every boat up. We worked everything out of his boat  
12 dock.

13                   This is Greasy Branch Boat Dock. His  
14 harbor color is orange. Greasy Branch, Ken Conrad is  
15 the owner there, 164 acres. Of course, their septic  
16 holding tank.

17                   And Crisp is in Graham County, David  
18 Crisp is one of our board members, 143 acres harbor.  
19 His harbor color is red. And, of course, his boat

20 sets there and his platform in the next slide. So  
21 everybody has got the same.

22 Prince, also in Graham County, owner  
23 is David Prince, 251 acres. His harbor color is  
24 green. And, of course, his boat. I am just showing  
25 you. So everybody gets the same and their platform.

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1 Then the seals. These seals right  
2 here, we designed these so whenever the health  
3 department, TVA, Wildlife, Forest Service, they come  
4 by, they want to know, is this particular houseboat,  
5 is in compliance, is it ready, and it's got a seal  
6 just like you have on your car. That seal will  
7 change every year.

8 Every year when they come by and pay  
9 their taxes at either Swain County or Graham County,  
10 the tax department will issue them a new seal. This  
11 one is in Graham County. It's got a picture of  
12 Graham County on it and the color.

13 Everybody that was involved in this  
14 where they can inspect and they know, if they see  
15 this particular houseboat anywhere on the lake, that  
16 that belongs to Prince, he's green, and their year is  
17 there.

18 Okay. And, of course, this is a TVA

19 houseboat at Prince's boat dock that is -- he's ready  
20 to go, got his seal right up front. His numbers do  
21 set on the side, but the seal -- most of them put  
22 their seals on the front window where those seals can  
23 be seen. Those seals are 6 inches, and that's a  
24 non-navigable houseboat.

25 Then, of course, a navigable  
1 houseboat, same way, got his seal right up there, 80  
2 he's ready to go. This navigable houseboat, if they  
3 move it out of their harbor, they can stay 12 days.  
4 Then they have to move, according to TVA, a navigable  
5 mile somewhere else and retie back up.

6 The reason we wrote into this  
7 ordinance to make them come back into their harbor is  
8 to hopefully try to keep them in their harbor. If a  
9 boat dock owner has to come outside that harbor to  
10 pump, it's going to about double the cost.

11 The initial \$100 that they pay for  
12 this, it does not apply for that pump outside the  
13 harbor. So we want them back in the harbors where  
14 they belong and get them off the main body of the  
15 lake. So far it's worked pretty well, there's a few,  
16 but most of them want to come back in. They don't  
17 want to pay that extra dollar.

18                   And Fontana is also in Graham County,  
19 owners Phillips and Jordan. Their harbor is yellow.  
20 He has 59 acres. The day I was down there shooting  
21 this I caught the guy just finishing pumping.  
22 Lester, that works there, he was just doing his  
23 paperwork. And believe you me, when you drove right  
24 by him there, you could smell, he had been pumping.  
25 I mean, it tells the tale. When you put 4 or  
1                   500 gallons in that, it's -- until it airs out, it's<sup>81</sup>  
2 pretty strong.

3                   And Stecoah is about 7 miles back up  
4 the lake from Fontana, but they -- this harbor does  
5 not have a boat dock. So they do take his harbor  
6 also and pump. So we put them as yellow also.

7                   And then we have David Sawyer,  
8 Chairman of the Partnership, presenting a check,  
9 \$477,000. This was used to pay for the boats, the  
10 platforms and the pontoons.

11                   This is Steve Akers with Tony  
12 Sherrill. This was reimbursing Tony not for the work  
13 that he had done on his own, but whenever we first  
14 started this, the tanks, the motors, these things had  
15 come in. The grant money hadn't. We hadn't received  
16 the grant money. Tony just took it out of pocket and

17 wrote a check for about several thousand dollars to  
18 buy all of this. So this was his check being  
19 reimbursed by the FLWR Organization. That's how  
20 committed Tony was to make this happen.

21 This was our contractor again paying  
22 him off. You know, these guys -- a lot of these  
23 guys, they done their work. We were told we was  
24 going to get the checks at a certain time. We went  
25 ahead and had the work set up to where it would be  
1 finished at that certain time. As you understand 82  
2 with a lot of government agencies, there was about a  
3 two-month delay. Luckily, they didn't crucify us.  
4 They just held off to get their money a little bit  
5 later. So it worked out real well.

6 This was our entire FLWR board, with  
7 the exception of this girl here and her husband,  
8 they're owners of Greasy Branch Boat Dock. It's  
9 David Crisp and David Sawyer, Bill Schutters, Tim  
10 Garrett. Chad Ensley was with the Health Department  
11 of Swain County, now it is -- he has left and Linda  
12 White is. Steve Akers. Alicia Parham in Graham.  
13 Carmaleta with the Eastern Band. Tony Sherrill,  
14 David Crisp and myself.

15 Okay. So the end results to us was to

16 see a nice clean lake for mommas and her little  
17 babies. This is what we like to see.

18 Okay. In Graham County we did have a  
19 problem with abandoned houseboats. These houseboats  
20 were just about to fall in the water. We had a  
21 couple in Swain County that's abandoned.

22 So we wrote into the ordinance that if  
23 they are not in compliance, that there be a penalty  
24 and the dock owner will give them a 60 day notice.  
25 If nothing is done within 60 days, they will give  
1 them a second notice of 30 days that they will have  
2 to remove them out of their harbor.

3 If the houseboat owner does not remove  
4 the houseboat, the health department will be notified  
5 within ten days. This is a criminal punishment,  
6 misdemeanor III. A \$500 a day fine is set up, it is  
7 in North Carolina. The health department can  
8 delegate how to get rid of these things, whether it  
9 be at the county or the state.

10 MR. BILL TITTLE: Is that a bear?

11 MR. DAVID MONTEITH: Sir?

12 MR. BILL TITTLE: Was that a bear on  
13 that houseboat?

14 MR. DAVID MONTEITH: Just a picture,

15 just a picture of a bear right there. That is our  
16 presentation about the FLWR Organization.

17 CHAIRMAN BRUCE SHUPP: All right.  
18 Austin, we will start with you.

19 MR. AUSTIN CARROLL: Explain those  
20 non-navigable houseboats.

21 MR. DAVID MONTEITH: TVA houseboats,  
22 we call them. They've got a TVA number. They cannot  
23 be removed. They cannot be moved out of their  
24 harbor. They are permanently tied up, no motor, and  
25 that's what TVA has required ever since Fontana Lake  
1 has been there. 84

2 MR. AUSTIN CARROLL: I am not familiar  
3 with that. Is that common on the other reservoirs?

4 MR. PHIL COMER: No, it's not common.

5 MS. BRIDGETTE ELLIS: Just a handful  
6 of reservoirs.

7 MR. AUSTIN CARROLL: I just hadn't  
8 seen that before.

9 MR. DAVID MONTEITH: You know, the  
10 other ones -- to go back to that, your other ones are  
11 navigable with a state number. Anybody can get a  
12 state number. And they are literally flooding  
13 Fontana lake with houseboats with these. If you have

14 got it, you can see 180 degrees, put a motor on it.  
15 You get a number just like you would if it's a  
16 pontoon and you're good to go.

17                   They have been doing this and straight  
18 piping for all these amount of years. So now they  
19 are all having to come into compliance.

20                   I have asked -- I have talked to state  
21 people. I have talked to our county and other  
22 commissioners about how to slow down the usage of  
23 houseboats on Fontana because, you know, I love the  
24 business and I love the lake and I want everybody to  
25 be able to have the opportunities, but it's getting  
1 right to the crowded point of not having any more on <sup>85</sup>  
2 there. It's going to take some legislation from the  
3 state to slow it down because locally it's going to  
4 be hard to get local people to do something about it.

5                   CHAIRMAN BRUCE SHUPP: Jim.

6                   MR. JIM JARED: Do you have problems  
7 finding the owners of some of these abandoned  
8 houseboats?

9                   MR. DAVID MONTEITH: We have had a  
10 little bit of problems, but through the help of the  
11 health department, tax department and TVA we have run  
12 them down. These guys have now all been notified.

13 They know they are there. They have got about  
14 another 30 days to do something.

15 One guy just came in and talked to  
16 David Prince. Yesterday when he was at our meeting  
17 he said, mine will be up-to-date and running by  
18 December 31st, because he knew he was going to lose  
19 it and he was going to face a fine. He was one of  
20 the guys that actually -- even though he sat down, we  
21 give him an extension.

22 We're not trying to be bad guys and  
23 force -- I don't say force this upon people, but make  
24 it so hard that people can't do. So that's why we  
25 give them extra -- until December 31st of this year.  
1 Even if they are not sitting down, if they come to us<sup>86</sup>  
2 and tell us what they want, the health department,  
3 the state have been real good.

4 If we can get them all by December  
5 31st we're in business. And we will have them all,  
6 because if they don't after that, it's -- you know,  
7 the free ride is over.

8 In Swain County, I can speak for Swain  
9 County, we had 50 percent of the houseboats had not  
10 paid taxes in ten years, you know, they just -- it  
11 was something that was out of sight, out of mind.

12 And whenever they went down and took pictures of them  
13 and realized what they had, the houseboat owners  
14 instantly, the first thing they said is, you know, we  
15 didn't pay much for them and they are not worth  
16 anything, but when their tax evaluation came out and  
17 they found out what they really was worth, then when  
18 they started selling them, they're selling -- the two  
19 houseboats that you saw there, those hosueboats are  
20 selling for \$35,000, I mean, that's hard to imagine  
21 for me, but, I mean, boy, they instantly become gold  
22 mines. They do sell them high price.

23 CHAIRMAN BRUCE SHUPP: Any other  
24 questions?

25 Thank you, David, appreciate it.

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1 MR. DAVID MONTEITH: Thank you.

2 CHAIRMAN BRUCE SHUPP: The next  
3 presenter is Callie Dobson. Is she here?

4 Is John Lamb here? No.

5 Well, let's take our break then, I  
6 guess, take a 15-minute break and we will hope that  
7 one of our next presenters will be here when we come  
8 back. That's the sins of going early, I guess. So  
9 let's be back here at 2:00.

10 (Brief recess.)

11 CHAIRMAN BRUCE SHUPP: Our next  
12 speaker is going to rescue us from our sort of  
13 cancelled schedule here. The speaker is John Lamb,  
14 the Blount County, Tennessee planner who is going to  
15 talk to us about water quality improvement on the  
16 Little River Water Quality Forum.

17 MR. JOHN LAMB: Thank you very much  
18 and thank you for having me here. I am very proud of  
19 the work we have been doing in Blount County,  
20 particularly with the assistance of TVA, and I want  
21 to highlight some of that with talking about the  
22 Little River Water Quality Forum and also the general  
23 context of planning in Blount County.

24 The reason I put that in the general  
25 context is when we were doing the Little Water  
1 Quality Planning we did have a larger planning 88  
2 context to work in and I think it did strengthen some  
3 of our efforts there.

4 We're looking at a partnership and a  
5 process here. There are two sets of activities that  
6 came together and a partnership that ultimately  
7 strengthened each other, Little River Water Quality  
8 Forum and the Blount County Planning Process. Both  
9 were aided at critical times by the Tennessee Valley

10 Authority.

11                   The next slide shows the location of  
12 the watershed. The Tennessee River is up to the  
13 north above that sign that says Stock Creek. The red  
14 part there is the embayment of the Tennessee River,  
15 Fort Loudon Lake. The watershed actually goes into  
16 the Great Smoky Mountains National Park. Part of the  
17 watershed is in Sevier County, but most of it is in  
18 Blount County.

19                   We gave you some idea of the water  
20 quality conditions there. The red streams are those  
21 that are non-supporting, mainly Pistol Creek, which  
22 is urban impacted, and Crooked Creek, which is more  
23 or less rural or agricultural impacted.

24                   This is another map that shows you the  
25 extent of the Little River, which is the one. And  
1 let's see if I can do this. Here's the boundary of <sup>89</sup>  
2 the Little River that's inside Blount County. The  
3 reason I show you this other map is that I am going  
4 to make a point later on that jurisdictional  
5 boundaries matter. They matter to me because I'm the  
6 planner for Blount County.

7                   I don't do just watershed planning. I  
8 do planning for the whole county. So when I talk

9 about water quality planning, I am talking about the  
10 whole county, not just one watershed.

11 To give you a little history to bring  
12 you up to speed, in 1996 the Little River Water  
13 Quality Forum was formed by interested people getting  
14 together, and I think TVA, and I think Tom McDonough  
15 also involved in that.

16 In 1997 the Water Quality Forum  
17 conducted issue awareness activities. There was a  
18 Little River canoe trip, which was very successful,  
19 and two public information meetings.

20 In 1998 to '99 the Water Quality Forum  
21 continued public awareness activities and the canoe  
22 trip became an annual event and best -- what is that,  
23 BMT, best management practices or projects promoted.  
24 Boy, I had two P's in that one. I should have edited  
25 that out.

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1 Some were funded in part by the  
2 Tennessee Valley Authority. Now, the Little River  
3 Watershed Association was also formed in the period  
4 of 1998 and 1999. That was a much more focused group  
5 on the Little River.

6 It allowed people who were involved as  
7 individuals to get together. It wasn't so much the

8 bureaucrats coming together, which was the Little  
9 Water Quality Forum, but allowed a lot of citizens to  
10 get together and have -- and show their interest in  
11 the watershed.

12 Parallel process, 1996, same time that  
13 the Water Quality Forum was started, the county began  
14 a general planning process. This was the first  
15 plan -- first general planning process that the  
16 county had in 20 to 25 years. We kind of lagged  
17 behind a little bit. Blount County actually has not  
18 had zoning but for five years. So we are not in a --  
19 we were not in the heavy planning mode at the time.

20 In 1997 the county held two rounds of  
21 17 citizen input workshops to involve the citizens in  
22 identifying priorities, identifying a planning and  
23 policy agenda. Water quality was identified as a  
24 priority in that set of 17 citizen input workshops.  
25 By the way, 250 people attended those workshops,  
1 citizens. 91

2 In 1998 the county -- I'm sorry. 250  
3 people attended the first round and 450 people  
4 attended the second round of workshops. So total we  
5 had about 600 people to go through these processes.

6 In 1998 the county formed an 11 member

7 citizen advisory committee. Water quality was,  
8 again, given a high priority.

9 In 1999 the planning commission  
10 formally adopted the policies plan, and part of the  
11 implementation agenda included future water quality  
12 planning activities.

13 Oops, I think I skipped one.

14 In 2000 to 2003 the Little River Water  
15 Quality Forum continues its outreach activities and  
16 BMP projects. The county was committed now to water  
17 quality planning. We had already had it identified  
18 in our policies plan. The county added \$33,000 to  
19 the IPSI study, which is Integrated Pollutant Source  
20 Identification Project Study, to cover the whole  
21 county.

22 Tom McDonough was the one that I has  
23 contacted on this. We found out that they were  
24 looking at covering just the Tuckaleechee Cove area,  
25 which is the area immediately adjacent to the park  
1 and then they were going to extend it to the full 92  
2 watershed. Me being the planner I said, I would  
3 really like to have full county coverage. So we --  
4 the county actually added \$33,000 to that project to  
5 give full county coverage.

6                   So this was a joint activity, a  
7 partnership between TVA and the county. The counties  
8 and the cities joined as pilot communities for the  
9 Tennessee Growth Readiness Project. This was a  
10 project that was geared towards making educational  
11 components. It was more educational and promotional,  
12 trying to promote good watershed management. This  
13 was funded by the Department of Agriculture, along  
14 with TVA support, and Joel Hayden was the person who  
15 was involved in that from TVA.

16                   The county completed the water quality  
17 plan, incorporating both of those projects. We  
18 actually were the pilot community for the Tennessee  
19 Growth Readiness Project. I went out and presented  
20 this in 22 community meetings. We had about 189  
21 people come through those meetings. So we did have a  
22 testing of the pilot education components and we also  
23 had an impact on that because we use it in a real  
24 planning process.

25                   In 2004 to present Little River Water  
1 Quality Forum strengthens its lead in watershed  
2 activity promotion and coordination. By the way,  
3 this is about the time, I think 2003, 2004, that I  
4 got very much involved in the Water Quality Forum.

5 The reason I didn't before is because I didn't have a  
6 basis for doing it.

7 The plan provided me the basis for  
8 actually getting involved in the Water Quality Forum,  
9 not that I was there doing the strengthening, but it  
10 did strengthen during this period. I think a lot of  
11 the effort came from Tom McDonough, he's been -- done  
12 the service in that.

13 UT CPC, Center for -- Tom, help me out  
14 on this?

15 MR. TOM MCDONOUGH: Community.

16 THE WITNESS: Community Partnership  
17 Center. I am a bureaucrat, but I really can't  
18 remember acronyms. They bear the death of me on  
19 that. Community Partnership Center grants -- gets a  
20 grant for community based planning process in the  
21 Little River Watershed.

22 Notice the progression here. We had a  
23 general planning process, a specific water quality  
24 plan. Now we're down to a specific watershed, and  
25 again, we're involving citizens in that process.

1 This was supported, again, by the Little River Water  
2 Quality Forum.

3 The Little River Watershed

4 Association, which is kind of the sister  
5 organization, focuses on Short Creek Watershed for an  
6 intensive process, more of a technical best  
7 management practice process.

8 The strength of the Little River Water  
9 Quality Forum and the supporting planning process has  
10 aided in securing about \$2 million from a variety of  
11 grant sources. I am not going to go over these  
12 sources here, other than to note that they are an  
13 amalgam of both private and governmental funds.

14 Notice at the bottom our two biggest  
15 corporations in Blount County have participated in  
16 this by funding certain activities, Denso  
17 Corporation, which is a Japanese subsidiary, and also  
18 Alcoa Aluminum Foundation, which is a very old plant,  
19 been there since about 1903 -- 1913. So they are  
20 supporting water quality issues.

21 I want to go now into the Little River  
22 Watershed Initiative, which is our most recent  
23 initiative. This is an activity that's coordinated  
24 and proposed by the Little River Watershed Water  
25 Quality Forum.

95

1 Eric Henry, who is with the soil  
2 conservation service, and Tom McDonough are the ones

3 that are spearheading this. They have written a  
4 grant proposal. I don't know if we have heard  
5 anything from that yet, but we're hopeful.

6 I want to go into a little bit about  
7 what we're proposing on that because it gives you an  
8 idea of how our past activities are now playing in an  
9 active continuation of the planning process.

10 The general framework for the  
11 watershed initiative includes ability to act and  
12 action plan development. It is in these two  
13 components that the Little River Water Quality Forum  
14 and the Blount County planning process came together  
15 in a formal context.

16 The coalition or the ability to act  
17 has a lot of members that have a wide range of  
18 interest, and I think we do have an ability to act.  
19 We have proven it in the past in planning contests.  
20 We have proven it in the past also in implementing  
21 projects in the field.

22 Notice that there is representation  
23 from everybody, local government, state government,  
24 federal government, TVA, interested citizens and  
25 non-government organizations.

1 Coalition's ability act is shown by

2 our knowledge and skills. We have knowledge about  
3 community attitudes from our processes going out into  
4 the community. We have had an education initiative,  
5 particularly the Tennessee Growth Readiness Project.

6 We have monitored the situation in the  
7 rivers, we have helped with that. We have done  
8 pollution modeling through the IPSI project, the BMP  
9 design is something that Tom McDonough and the Soil  
10 Conservation Service has been very active in. Grant  
11 writing, again, what this is all about.

12 Coordination, very important there  
13 because we're coordinating a lot of different  
14 interest, a lot of different abilities. Planning, I  
15 think we have shown what we have done in planning.  
16 We're very strong in that.

17 Permitting and enforcement, we have  
18 actually gotten to the point now that we have a storm  
19 water administrator in two cities, Alco, Maryville  
20 and also Blount County. We're enforcing regulations  
21 much more stringently from the planning aspect in  
22 approval for subdivision plats and also in approvals  
23 for zoning permits.

24 Did I skip one?

25 Something happened here. I don't know

1 what happened there.

2 Water Quality Plan Development, again,  
3 we had the planning process initiated in 1996. In  
4 1999 we had Blount County Policy Plan. We had the  
5 Water Quality Plan then in 2003 and the Little  
6 River-Big Future, which was the UT CPC project. It  
7 also involved citizens, and they came up with a plan.  
8 So we have had a continuous planning process that is  
9 going to help in this project that we're proposing  
10 right now.

11 Little River Watershed Restoration  
12 Initiative Grant Proposal focuses on five areas. It  
13 focuses on the five sub watersheds of the Little  
14 River, being Pistol Creek, Crooked Creek, Ellejoy  
15 Creek, Nails Creek and the lower section of the  
16 Little River.

17 The program of activities will include  
18 identification of bacteria and sedimentation  
19 pollution sources, something that's very important to  
20 us. We don't really know where the bacterial  
21 pollution is coming from. We have the development  
22 community that's saying, well, it's coming from  
23 agriculture, the agricultural community is saying  
24 it's coming from development, and all we know is that

25 there's bacteria in the water. So we're looking at  
1 the sources on that, very important to our future  
2 planning. 98

3 Implementation of agricultural BMPs  
4 with cost sharing, very important to the farmers that  
5 we have some cost sharing there. They do respond  
6 very well. We have quite a few acceptors in the  
7 community.

8 And education of homeowners and  
9 assistance to low income households for repair of  
10 failing septic systems, we have had a little bit of  
11 funding in the past with failing septic systems.  
12 It's been very meager. It's something that we need  
13 because we do have some low income people, that when  
14 we find a violation of septic system it's very hard  
15 for them to repair. So if we have some money we can  
16 actually have some impact there. We definitely don't  
17 want to turn people out of their houses.

18 The project will be monitored as it  
19 progresses and management will be adapted as  
20 required.

21 I want to go now to some lessons  
22 learned. This is personal lessons learned. This is  
23 not something that I can say that's been identified

24 by the Little River Water Quality Forum, but I have  
25 been involved in this planning process and the Little  
1 River Water Quality Forum and I have formed some  
2 conclusions.

3 Folks on water quality and watershed  
4 planning can be strengthened by inclusion in a more  
5 general process. In particular, it can give a basis  
6 for active participation by members from government.

7 I was given the ability to go into the  
8 Little River Water Quality Forum in a much stronger  
9 position because I had a plan behind me. My  
10 activities were actually based on a plan.

11 A more general planning process can  
12 draw a larger audience. Many will participate in a  
13 planning process with general applicability while a  
14 more limited focus may not interest as wide an  
15 audience.

16 Citizens already perceive that water  
17 quality is important. A general planning process can  
18 document, validate and enhance this. A general  
19 planning process can also give a formal priority to  
20 water quality. You have seen that all the way from  
21 our beginning of the planning process down to our  
22 last activities in the watershed.

23                   Acceptance of specific measures takes  
24 time and building such acceptance pays off in the  
25 end. The merging over time of Little River Water  
1                   Quality Forum activities, especially public awareness 100  
2 and involvement with the general planning process  
3 that formally included water quality as a priority  
4 paid off in acceptance of specific measures, such as  
5 regulations and project activities.

6                   There's always resistance to  
7 regulations. If you put it in a general planning  
8 context that people have bought into already, it's  
9 much easier to get those adopted.

10                   Government/NGO cooperation works  
11 better when validated by a plan, at least from a  
12 government standpoint. I am not sure from the NGO  
13 standpoint. I think there's still a little  
14 resistance to government interference sometimes, but  
15 it makes it easier for the government to get  
16 involved.

17                   Once water quality is recognized, in  
18 one context it can grow as an issue addressed in many  
19 contexts and each can reinforce each other. We have  
20 had other subsidiary planning processes where water  
21 quality has come up. I think the consciousness is

22 raised already in the community. So when we go out  
23 and we talk about general planning, we talk about  
24 zoning, we talk about subdivision regulations, always  
25 water quality comes up as an issue.

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1 Jurisdictional boundaries matter.

2 Now, this is John Lamb, the planner, who has to cover  
3 the full county planning jurisdiction talking.

4 For county government, the whole  
5 county is the context for planning regulation. The  
6 focus on a watershed at times is a limiting focus.  
7 We have had a good partnership, but keep in mind, I  
8 have got to think a little broader than just the  
9 watershed of the Little River.

10 Values processing is more important  
11 than data processing, at least initially. Values  
12 often drive planning more than detailed issue  
13 information. There is a time and place for data  
14 processing, but initial focus on values is often more  
15 productive in the progress of a planning process.

16 Notice I said initially. My goal  
17 throughout this process is to get more and more  
18 information involved in the planning process the more  
19 and more detailed you get, and I think we have been  
20 successful in that.

21                   When we started out, I will tell you  
22    how simple it was, when we went out to the community  
23    those 17 times, we had two questions. What is good  
24    about Blount County that should be preserved in the  
25    future and what needs to be changed in the future  
1    to -- that needs to be changed in Blount County to 102  
2    make a better future, two very simple questions, and  
3    those were value questions, and we got a whole  
4    planning agenda from that. We didn't have to go out  
5    with a lot of data to get that planning agenda  
6    established.

7                   Education is more important than  
8    detailed research but research can assist education.  
9    This is one of the issues I had when we were going  
10   through the Tennessee Growth Readiness Project and  
11   the IPSI project. It was very hard to get those to  
12   dovetail into a real planning process. It needs to  
13   be a timely integration.

14                   Sometimes the people who were trying  
15   to make the models got a little bit too concerned  
16   about the -- did I do it again?

17                   Can you bump me back? I am going to  
18   put this thing down. I play with my hands when I  
19   talk and it messes me up. Probably down about --

20 right there looks good.

21 Model needs to be firmed at some point  
22 to provide timely input. We had a little problem in  
23 integrating these things because the modelers got a  
24 little bit involved in their models, and that is  
25 something that you need to recognize for people that  
1 like to crunch numbers. I used to love to do that. <sup>103</sup>  
2 I more like now to talk with people and get their  
3 values involved.

4 There's a time process that is  
5 involved here in government. We have some deadlines.  
6 So if you get too involved in the modeling, too  
7 involved in the data, too involved in the crunching  
8 of numbers, sometimes you can lag behind, and I just  
9 want to make that not as a criticism but as something  
10 that I think everybody needs to keep in mind.

11 When you go out into the real world  
12 and the planning process, you need to hit some  
13 targets in a timely manner, and sometimes you need to  
14 reign in your number crunchers and get them to  
15 actually produce something on time.

16 Research needs to be cognizant of  
17 policy and planning needs. I think I went over this  
18 one, didn't it?

19                   And last. Thank you. I want to thank  
20   TVA very much for supporting us in Blount County. I  
21   think it's been a very fruitful partnership. I  
22   particularly want to thank Tom McDonough and Joel  
23   Hayden. I have had a very good and productive  
24   relationship with both of those people. It's been  
25   very, very beneficial to Blount County. And we look  
1   forward to a continued partnership. With that, I <sup>104</sup>  
2   will open it up for questions.

3                   CHAIRMAN BRUCE SHUPP: Questions?

4                   Tom.

5                   MR. TOM LITTLEPAGE: Yeah, I  
6   appreciate that, John. I guess the question I had is  
7   we talked at the last Council meeting relative to  
8   land use planning around projects and that kind of  
9   stuff and found that there are a lot of places that  
10   don't have a formalized planning structure.

11                   My question is one of -- based on your  
12   experience, how much did the fact that you had this  
13   infrastructure or planning integrating with a  
14   watershed initiative, what's your perception of how  
15   you can work on a watershed initiative without that  
16   kind of cross fertilization of a planning process in  
17   place?

18 MR. JOHN LAMB: I am sure you can do  
19 it. What it takes is a commitment to do a plan.  
20 Like I said, you know, our 1999 policy plan started  
21 in 1996 as a process, that was the first plan in  
22 about 20 to 25 years.

23 So obviously even though it might seem  
24 we had a structure there, you know, an infrastructure  
25 to work from, we were starting from scratch. We had  
1 an old plan that was already outdated and we were <sup>105</sup>  
2 starting from scratch, and it just takes that  
3 commitment.

4 If you don't have local government  
5 behind it, I still think you can do a watershed plan.  
6 I am just saying that I think it's strengthened by  
7 having that local government plan behind it.

8 MR. TOM LITTLEPAGE: Thank you.

9 CHAIRMAN BRUCE SHUPP: Questions?

10 John, who was the catalyst for the  
11 coalition, for the forum, and who gets the money? Is  
12 the forum a structured entity that gets the grants or  
13 is the county getting the grants?

14 MR. JOHN LAMB: I don't think the  
15 forum ever got a grant directly. I think it can be  
16 the county or it can be TVA using the money. It can

17 be the Soil Conservation Service. The Little River  
18 Watershed Association has gotten direct grants. We  
19 don't have a turf battle over grants. I mean,  
20 whoever gets it, we're happy.

21 CHAIRMAN BRUCE SHUPP: So the grant  
22 doesn't come to one entity?

23 MR. JOHN LAMB: No.

24 CHAIRMAN BRUCE SHUPP: It's coming to  
25 various entities?

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1 MR. JOHN LAMB: Yes.

2 CHAIRMAN BRUCE SHUPP: Whoever has the  
3 action program on the ground?

4 MR. JOHN LAMB: The forum is more of a  
5 coordinating body. We support each other. Like in  
6 this last grant, Mr. Henry from the Soil Conservation  
7 Service called me up and said, can you write a letter  
8 in support?

9 I said, from what position?

10 He said, well, from county.

11 I am actually the planner for the  
12 county. I am the chairman of the Environmental  
13 Health Action Team. I can write letters from just  
14 about any perspective. So all you have got to do is  
15 ask me and I will write that letter because we

16 support each other.

17 CHAIRMAN BRUCE SHUPP: So the county  
18 feeds and supports the forum?

19 MR. JOHN LAMB: Yes. We have actually  
20 added some money to the activities. That \$33,000  
21 might seem like pocket change, but when a planner  
22 goes to the county commission and asks for \$33,000,  
23 you kind of duck, you know, you don't know if some  
24 people are going to throw things at you.

25 We found very good support from the  
1 county commission for that. No questions, I mean, 107  
2 they just said, yeah, this is a good activity.

3 CHAIRMAN BRUCE SHUPP: Other  
4 questions?

5 Greer, are you scrambling to put one  
6 together?

7 MR. GREER TIDWELL: No.

8 CHAIRMAN BRUCE SHUPP: Okay. Thank  
9 you very much, John, for coming in and bailing us out  
10 of our time slot.

11 MR. JOHN LAMB: I get to go home early  
12 then.

13 CHAIRMAN BRUCE SHUPP: Yeah, you do.  
14 Okay.

15                   Our next speaker is Callie Dobson.  
16    Callie, you're here. Callie is Hiwassee River  
17    Watershed Coalition, who just game through a long  
18    drive to get here, I understand. She's going to talk  
19    about the Hiwassee River Watershed Coalition Water  
20    Quality Planning.

21                   MS. CALLIE DOBSON: You know, you  
22    drive all over the southeast and you will admit how  
23    everything is changing and how everything is so  
24    different than the last time you were here. Well, I  
25    am here to report that at Walker Springs, Knoxville  
1    is exactly the same as it was five years ago when I <sup>108</sup>  
2    was here last. It is dead still traffic, three lanes  
3    on the interstate, with construction going on. I  
4    apologize for being late. It really wasn't that long  
5    a drive until I got to the construction.

6                   I am Callie Dobson. I really  
7    appreciate the opportunity to be here today. I am  
8    the Director of Hiwassee River Watershed Coalition,  
9    and I am just going to give y'all a little idea of  
10   the kinds of things that we're doing in the upper  
11   half of the Hiwassee River Basin and how our  
12   partnerships with TVA and others have contributed to  
13   that effort.

14                   And let's see. Here we go. You-all  
15 probably are already aware of this, but it was in my  
16 presentation to begin with, so I thought I would  
17 leave it in.

18                   The black line outlines the Hiwassee  
19 River Basin portion of the Tennessee Valley. There  
20 we go. That's a little bit bigger version showing  
21 the upper half, and the coalition coverage area is --  
22 well -- oh, well, I don't need to go back to it, I  
23 don't guess.

24                   This is a closeup of the current  
25 Hiwassee River Watershed Coalition coverage area. It  
1 includes Cherokee and Clay Counties in North Carolina <sup>109</sup>  
2 and Towns and Union Counties in North Georgia,  
3 everything that drains into the Hiwassee River,  
4 including the Nottely River and the Valley River,  
5 four TVA Reservoirs, Chatuge, Nottely, Hiwassee and  
6 Appalachia. So it's basically everything draining  
7 into the Appalachia Dam.

8                   We have had a small initiative lately  
9 to expand to cover the Tacona River Watershed which  
10 would pick up Lake Blue Ridge and everything -- that  
11 would truly be the entire Georgia and North Carolina  
12 portions of the Hiwassee River Basin, but we're still

13 working on that.

14 We really want to have the kind of  
15 partnership with Fannin County that we have with the  
16 other counties, and that's taking a little bit more  
17 effort than it has in the past.

18 The coalition began in the early 1990s  
19 because of primarily local farmers' concern about a  
20 decline in the fish community due to sedimentation.  
21 They had seen the creek get muddier over the '80s and  
22 into the '90s and were concerned that they were not  
23 catching as many fish as they used to and what could  
24 be done about that.

25 And what happened was they went to the  
1 local soil and water conservation districts because <sup>110</sup>  
2 that's what you do if you're a farmer and you need  
3 help with something in that regard, and they had a  
4 big meeting in the center of the watershed.

5 And as the local natural resources  
6 conservation service folks and the soil and water  
7 district folks and just kind of the agency people  
8 that were working at that time got around the table,  
9 they realized that the state line was going to be  
10 kind of a barrier for the agency people to work on  
11 this problem themselves.

12                   The way that you have to report as an  
13 agency and everything is so different between Georgia  
14 and North Carolina that they determined that it would  
15 be a lot easier if a single entity and a nonprofit  
16 entity was formed to work on these issues across the  
17 state boundary.

18                   So the coalition was formally  
19 organized in 1995, and TVA was right there in the  
20 lead with NRCS and the local soil and water  
21 conservation districts in helping the coalition in  
22 the very beginning.

23                   So we now cover -- I mean, I think  
24 from the beginning we have covered more than just  
25 Brasstown Creek, that's just kind of where it began,  
1 but we cover portions of two states, three soil and <sup>111</sup>  
2 water conservation districts, four counties and six  
3 towns.

4                   Our mission is to facilitate water  
5 quality improvements throughout that upper Hiwassee  
6 River Watershed area across all the political  
7 boundaries while honoring the efforts of local  
8 people.

9                   We're structured a little bit  
10 differently than just a regular old citizen group.

11 We don't go out and recruit board members that are  
12 politically influential or have a lot of money or are  
13 capable of commandeering a lot of money, and maybe  
14 that hinders us in some way. I don't know. We  
15 haven't gotten to that point yet.

16 How we're structured today is that  
17 each county within the watershed and each soil and  
18 water conservation district within the watershed  
19 appoints somebody to represent them on our board of  
20 directors.

21 So we have eight appointed  
22 representatives, one from each county and one from --  
23 for each county, one from each of the soil and water  
24 conservation districts, and then those people appoint  
25 one more at large member to make it an odd number.

1 So we have nine people on the board of directors, and <sup>112</sup>  
2 we're very much a working board. We meet every month  
3 and the board members work. They are not figure  
4 heads. Otherwise, we would have never gotten to the  
5 point where we are.

6 Technical advisors are still very  
7 influential. Helping us technically and financially  
8 are the Natural Resources Conservation Services, the  
9 Tennessee Valley Authority, the Resource Stewardship

10 group, and the North Carolina Division of Water  
11 Quality.

12 We haven't had as much  
13 participation -- actually, we have had no  
14 participation from the State of Georgia. They're a  
15 counterpart to the North Carolina Division of Water  
16 Quality.

17 We have, I actually have to count them  
18 now, four real staff people and one accountant that's  
19 on contract. I am full-time. The office manager is  
20 full-time. And we just recently hired a part-time  
21 assistant director, she just started this month.

22 And then our restoration coordinator  
23 is another unique partnership. We pay half the  
24 salary package of an NRCS employee. So Glenn Carson  
25 currently works for the NRCS, but he spends half his  
1 time coordinating the coalition's restoration  
2 activities, in addition to his NRCS responsibilities.

3 I just threw this up because I thought  
4 that you might be interested in how our operating  
5 expenses are funded and TVA's role in that. This is  
6 not programs. None of this money goes with the  
7 programs that I'm about to go through. Okay? This  
8 is just what keeps our lights on, what pays our

9 salaries, our office supplies, expenses, things of  
10 that nature.

11 This is for 2004, the actual  
12 operational income, and you can see there that TVA  
13 was about 16 percent of that. TVA typically runs  
14 between 11 and 18 percent of our operational budget.  
15 The counties each contribute \$2,500 a year as a  
16 budgeted line item. So we do have a really good  
17 relationship with our local governments. It's not  
18 just them providing a board person they may or may  
19 not even know. They are providing operating expenses  
20 as well and they pay attention as a result.

21 Membership dues, we do have regular  
22 membership dues just like any other group where you  
23 can become a member and contribute to our support  
24 that way. We have local fund raising events as well.  
25 So the local piece, if you count the counties and the  
1 membership dues, fund raising, miscellaneous, et <sup>114</sup>  
2 cetera, is about 25 percent.

3 Typically 25 percent comes from a  
4 private source. In 2004 it was the Z. Smith Reynolds  
5 Foundation, which is a North Carolina foundation that  
6 supports environmental efforts.

7 In 2005, again in partial thanks to

8 TVA, we were set up with a sustainable development  
9 group in North Georgia that provided the 25 percent  
10 of the private expenses.

11 Then about a quarter comes from  
12 previous year's grant administration, and that's  
13 project grants that we administer and the fees that  
14 we collect.

15 The coalition has four major program  
16 areas, and I'm just going to go briefly through each  
17 one and then explain why the partnership -- how the  
18 partnership allows us to be successful in each of the  
19 program areas.

20 The first one is watershed planning.  
21 Back in 2001 Lake Chatuge's ecological health rating  
22 that TVA assigns to all the reservoirs declined  
23 significantly from good to poor literally over a  
24 two-year period, and it didn't recover throughout the  
25 '90s. It still ranges in the fair to poor range.

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1 So the coalition was successful in  
2 getting a direct appropriation from the Georgia  
3 legislature to study both Lake Chatuge and Lake  
4 Nottely, which Lake Nottely has been fair to poor for  
5 a very long time in its ecological health rating.

6 So we received money to try to

7 determine what the causes of the deterioration were  
8 and how they could be changed, basically how they  
9 would be improved. So we did that through a  
10 collection of professional water quality monitoring  
11 data for both lakes, the lake themselves and the  
12 streams that flow into them.

13           TVA did an IPSI on the detailed land  
14 use analysis and the information that comes with  
15 that. Then TVA also worked on actual computer models  
16 for both the watershed and the lake. So with that  
17 ability now we're finished with the computer modeling  
18 process and so we now have the ability to develop  
19 scenarios that actually will lead to improvement in  
20 Lake Chatuge's ecological health rating.

21           The next step is to develop watershed  
22 action plans, and we're doing that in the communities  
23 with local government participation. We are in an  
24 area where we don't have planning at the local  
25 government level really. There is a limited amount  
1 in some counties but nothing like any kind of plans 116  
2 and very little even zoning types of situations.

3           So the partnerships, you know, help in  
4 a variety of ways, and I probably haven't even gotten  
5 them all down as far as the watershed planning goes,

6 but obviously our county connections really helped  
7 and I think our agency connections probably helped as  
8 well in getting that appropriation from the Georgia  
9 legislature to begin with in order to do this work.

10 We already have the delivery system in  
11 place for the results that we found as a result of  
12 the monitoring data and the modeling in terms of what  
13 the counties knew all along that we were doing this.  
14 So they knew all along there was a chance that it was  
15 going to turn up problems with their wastewater  
16 treatment plants in the towns. So we had the  
17 communication going and the buy-in from them that if  
18 there a problem with their wastewater treatment  
19 plant, they were going to work with us to get it  
20 fixed.

21 And we're currently in the process of  
22 working with the City of Hiwassee because the  
23 nutrients from that wastewater treatment plant  
24 discharge, even though it's in compliance with the  
25 law, are a significant part of the issues associated  
1 with Lake Chatuge's water quality. 117

2 We also have a buy-in from the  
3 communities for implementation of the watershed  
4 action plans and there will be -- you know, we see it

5 being a variety of different folks that are  
6 implementing those action plans.

7           The coalition will have a role, you  
8 know, there will be some things that we'll need to go  
9 out and find grants for. The City of Hiwassee will  
10 have a role in things that we might help them get  
11 grants for. Towns County, Union County will have  
12 roles, and, you know, some of that may involve  
13 development of new local ordinances. So we're really  
14 excited about what the future might hold in both of  
15 those lake watersheds.

16           Then, of course, working with TVA  
17 brought in additional resources in terms of not only  
18 technical assistance but money associated with that,  
19 and the project would be not even a quarter as good  
20 without TVA's help.

21           The second program area is watershed  
22 restoration. All of this is in the North Carolina  
23 portion of the watershed, and the reason for that is  
24 because that's where we have been able to find  
25 funding to do watershed restoration work.

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1           The North Carolina Clean Water  
2 Management Trust Fund has funded the coalition over  
3 the past five years to the tune of almost \$3 million

4 for this type of work, and the first watershed that  
5 we worked in was the Brasstown Creek Watershed. You  
6 will remember that is where we started. Fortunately  
7 to date we have been able to restore 5.5 miles of  
8 streams draining to, as well as the mainstem, of  
9 Brasstown Creek itself.

10 We're in the process now of a  
11 three-year study to evaluate what we have done to  
12 document the improvement that it has made, reduction  
13 in sedimentation and improvement in the fish  
14 community.

15 Associated with the stream restoration  
16 though we do a variety of other things, including  
17 pasture land improvements and revegetation of  
18 critically eroding bare areas that are within  
19 200 feet of streams, but I guess the most exciting  
20 thing about this is the number of people that are  
21 involved.

22 Just in this one watershed we have got  
23 contracts with 40 landowners for a minimum of 30  
24 years for protection of the projects, and we spent  
25 more than \$2 million locally using local contractors  
1 and materials and suppliers for the activities  
2 associated with this work.

3                   In the Little Brasstown Creek  
4     Watershed, which is a major tributary to Brasstown  
5     Creek, that's where we have been working in 2004. In  
6     the beginning we estimated that approximately  
7     75 percent of the channel of Little Brasstown Creek  
8     was historically altered, either straightened or  
9     moved or both, and to date four projects have  
10    restored 63 percent of the total stream's length.

11                   We have one more that's been designed  
12    and all that's left is to construct it and that will  
13    mean 72 percent is restored. So we have come close  
14    to restoring 100 percent of what was needed in this  
15    small little watershed. And you can see there the  
16    before picture on the top and an after picture on the  
17    bottom of one of the creeks in Little Brasstown  
18    Watershed.

19                   This is a picture of the North  
20    Carolina portion of the Brasstown Creek Watershed,  
21    and the purple areas and the orange areas are all the  
22    places that we have done actual stream restoration  
23    projects and the green areas are critically eroding  
24    and pasture land improvement areas.

25                   We have also -- after we kind of did  
1    everything that we could do as far as landowner

2 willingness was concerned in the Brasstown Creek  
3 Watershed, we moved over to another stream that was  
4 having difficulty in the North Carolina portion of  
5 the basin, and that's the Valley River Watershed.

6 We got a little bit smarter with this  
7 one. We spent a lot more time monitoring before we  
8 started, and TVA, again, provided or worked with us  
9 to do an IPSI for this watershed so that we have a  
10 lot more information prior to the restoration project  
11 so that we will be able to see our results much  
12 faster in this watershed. Then we also were able to  
13 go ahead and start work on the Valley River mainstem.

14 And this picture, probably more than  
15 any of the previous ones, gives you an idea of what  
16 we're trying to do. We have really three goals for  
17 each project that we do. The first one is to  
18 minimize or completely remove stream bank erosion.

19 You can see over in the top left that  
20 sediment and rock that has started to aggregate in  
21 the center of the stream, and that's what we call a  
22 mid bar. What's happening there is there's just so  
23 much sediment load coming off the banks of the river  
24 that the river can't move at all except in the  
25 largest storm event. So it deposits it there in the

1 middle. What had happened is for about a mile of the  
2 river here we had no deep pools. Everything was kind  
3 of all the same depth and had a lot of sediment  
4 deposited in the middle and the banks were actively  
5 eroding.

6           So the second purpose is -- the first  
7 one was to stop the stream bank erosion, but the  
8 second one is to improve the aquatic habitat. So  
9 what you want to see is some shallow fast moving  
10 areas and some larger deep just real slow moving  
11 areas, preferably along the banks. So the second  
12 goal was to provide that aquatic habitat in stream.

13           Then the third goal is to reestablish  
14 a good riparian buffer. We plant native trees and  
15 shrubs, woody vegetation 30 to 50 feet back from the  
16 top of the bank and then we protect that for a  
17 minimum of 30 years. Such people choose to sign  
18 permanent conservation easements and get tax  
19 write-offs associated with that.

20           You can see in the bottom right how  
21 this structure that we put in the stream funnels the  
22 energy of the flow into the center of the channel and  
23 away from the banks. These structures are called a  
24 cross-main structure, and they actually help build

25 the banks back because as the water comes up those  
1 veins, they are on a slope and you can probably 122  
2 see -- yeah, you can see the slope in the bottom  
3 right on that one, they are pointed upstream and as  
4 the river water gets up it has to go up that vein.  
5 So it slows down and it drops the sediment out on the  
6 sides instead of in the center and then it just --  
7 the water rolls over those structures and back into  
8 the center of the river.

9 So this was another location along the  
10 same project where an old SCS project had installed  
11 wood cribbing, but they didn't fence the cattle out  
12 and they didn't plant a buffer. So now it's eroding  
13 and has been damaged and was falling down.

14 This is just another picture of what's  
15 called a J hook vein that, again, you can see how the  
16 water is going to have to come up that vein and drop  
17 its load out on the side there as it goes on down the  
18 line.

19 This is our most recent project. It's  
20 in the town of Andrews at the recreation park, and  
21 the town of Andrews paid nothing, nothing for this  
22 project. Okay? Pictures on the left-hand side are  
23 showing the deep erosion. It's running right through

24 the park.

25                   It was so steep that like children  
1                   couldn't really play in it. I mean, you really had <sup>123</sup>  
2                   to kind of keep the children away from it because  
3                   there was a hazard of them falling down the bank and  
4                   into the stream.

5                   It was eroding underneath ball field  
6                   fences. The scoreboard of one field was in jeopardy.  
7                   It was because it had historically been straightened  
8                   and been pushed up against the edge of the property.

9                   So we were able to take the stream,  
10                  move it away from the ball fields and put the  
11                  sinuosity back in and bring it back up to its  
12                  original floodplain elevation so that now it's usable  
13                  back in the park again.

14                  Okay. And so the partnerships with  
15                  the watershed restoration, first of all, the soil and  
16                  water -- most of it's done on farm land, and the soil  
17                  and water districts are really supportive of our  
18                  projects. And because we work so closely with them,  
19                  there's a lot of buy-in from the communities.

20                  The local staff, particularly our NRCS  
21                  coordinator, already knows the local landowners. So  
22                  they go in first to sell the project. So we get a

23 lot more support from the people themselves that way.

24                   Because of our board members and the  
25 districts being appointed by the counties, they are  
1 often community leaders. And then, of course, you<sup>124</sup>  
2 know, the partnerships, again, with the NRCS and TVA,  
3 contributing to these projects make them -- help them  
4 achieve much more than the grant would have by  
5 itself.

6                   Our third program area is education  
7 and outreach, and this is exactly what it sounds  
8 like. We do field days for kids with the schools.  
9 We work with the local community colleges.

10                   We have a project right now, also with  
11 the TVA sustainable development group, demonstrating  
12 storm water best management practices for the new  
13 Clay Town's industrial park and just presentations at  
14 civic organizations and things of that nature.

15                   One of the things that I didn't  
16 mention from that previous slide was our  
17 contractor -- grading and clearing contractor  
18 education program. One of the ways our partnerships  
19 works is that because we have these -- our watershed  
20 restoration uses local contractors and material  
21 suppliers, we have a good working relationship with

22 them. So they were all ready to participate in our  
23 education program. So sometimes our partnerships  
24 that we make associated with other program work  
25 assist us with additional program work.

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1 And then also our partnerships,  
2 particularly with TVA and other agencies, they will  
3 often fund projects like this. And these grading and  
4 clearing contractor trainings were actually funded by  
5 TVA last year.

6 And our fourth and final program area  
7 is volunteer monitoring, and this kind of goes along  
8 with the first one, which was the lake studies. A  
9 lot of the sites or nearly all of the sites that were  
10 professionally monitored as part of our watershed  
11 planning effort are now being monitored continuously  
12 from that time by volunteers.

13 So we're continuing to collect data  
14 which will be -- which will be usable to upgrade our  
15 models and to make sure that the information that we  
16 are using throughout the watershed planning  
17 initiative is still current.

18 We have about 50 different citizens  
19 that are involved in the volunteer monitoring program  
20 in either the Lake Chatuge or the Lake Nottely

21 watersheds, and we're hoping to be able to expand  
22 that program in the future.

23                   What the first item is, it says to  
24 participate in VWIN, and that's the Volunteer Water  
25 Information Network. It's a Southern Appalachian  
1 Regional Network that's operated out of the  
2 University of North Carolina at Asheville.

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3                   And all of our data and all of our  
4 samples that the volunteers collect are sent to the  
5 lab there in Asheville and analyzed as part of this  
6 regional network. Then we get a report every year  
7 that shows how our streams are doing compared to all  
8 the other streams that are in the network in the  
9 Southern Appalachian region partnerships at work in  
10 the volunteer monitoring.

11                   Obviously all of our connections  
12 locally help generate interest among people to  
13 volunteer to participate in the program, but what we  
14 have also seen is that the local governments tend to  
15 perk up when we say that, you know, 35 residents of  
16 their county are participating in this program with  
17 us.

18                   I think it really helps them to see  
19 people actually going out on a Saturday spending

20 their time to monitor water quality. It says to them  
21 that these people really are concerned about our  
22 resources and so it's something that we should be  
23 concerned about as well.

24 Then, here again, with our  
25 partnerships there's a delivery system. If there are  
1 problems that do come up, we have the mechanism to go <sup>127</sup>  
2 and speak to those people to try to get resolution.

3 So, again, I mean, partnerships I  
4 think has been the theme throughout our ten-year  
5 history as to why we have been successful in several  
6 different areas, but our work is also based on sound  
7 science and I think TVA has really helped in that  
8 regard.

9 I mean, a lot of organizations just  
10 kind of flounder around out there doing things  
11 because they can be funded to do them. And because  
12 of our partnership with TVA and the technical  
13 assistance that they have provided us, we have been  
14 able to look at signs and say, okay, what do we need  
15 to do, now let's go get funded to do it, and that is  
16 very important.

17 We are non-advocacy. We don't take  
18 sides in the political arena. We don't, you know,

19 support one decision over another. We just collect  
20 facts and disseminate facts and we let people -- we  
21 encourage people to make their own decisions about  
22 things local.

23 Then also the local people really  
24 support the organization. They may not be our  
25 biggest financial backers. Most of the time the  
1 people that have moved in from elsewhere that have 128  
2 already seen the deterioration and have retired to  
3 our mountains tend to have the big bucks and cash,  
4 but the support of both constituencies in our  
5 community has been definitely a factor in our  
6 success.

7 So that's all I have. And I would  
8 encourage you, if you're interested in more, our  
9 website -- our office manager has done an amazing job  
10 with our website. It has a lot of information,  
11 particularly about the restoration work.

12 The lake study stuff isn't updated  
13 yet, but hopefully it will be very soon as we take  
14 the results of our models to the community this fall.  
15 I would be happy to answer any questions that you  
16 might have.

17 CHAIRMAN BRUCE SHUPP: Questions?

18 Greer.

19 MR. GREER TIDWELL: Just a couple of  
20 things I want to make sure I got the words right on.  
21 Is it North Carolina Clean Water Restoration Trust  
22 Fund?

23 MS. CALLIE DOBSON: Clean Water  
24 Management Trust Fund. It's an amazing thing. The  
25 legislature in 1999 set up this fund, and it's a  
1 direct appropriation every year. They just decide as <sup>129</sup>  
2 part of the budget how much money they are going to  
3 put into it, and it's for competitive -- nonprofit  
4 and governments can apply for clean water projects.

5 They include land acquisition,  
6 restoration, planning, wastewater improvements like  
7 septic tank, straight piping types of projects.  
8 Anything that you can justify as a project that's  
9 going to improve clean water, basically they will  
10 consider funding.

11 They have never funded at less than  
12 \$30 million, and this year we got \$100 million across  
13 the state. So I would encourage other states to be  
14 looking into the possibilities of what North Carolina  
15 is doing.

16 MR. GREER TIDWELL: Have the direct

17 health improvement impacts of those projects been  
18 documented or recorded?

19 MS. CALLIE DOBSON: That's what we're  
20 doing right now for our work. I mean, other people  
21 have documented, you know, Clean Water Management  
22 Trust Fund project improvements for sure, but since  
23 we were working on a watershed basis we did basically  
24 all of the work we were going to do and now we're in  
25 the process of evaluating, you know, what actually --

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1 MR. GREER TIDWELL: What about human  
2 health impacts of those dollars?

3 MS. CALLIE DOBSON: Health impacts?

4 MR. GREER TIDWELL: Yeah.

5 MS. CALLIE DOBSON: We're not doing  
6 that.

7 MR. GREER TIDWELL: Have you seen that  
8 done in North Carolina?

9 MS. CALLIE DOBSON: I am sure it's got  
10 to have been done somewhere, particularly with the  
11 wastewater improvement end of things, but Brasstown  
12 Creek is a water supply. So, I mean, I don't see why  
13 we couldn't do that, but nobody has ever, I guess,  
14 asked us to do it. So I'm not sure. They have a web  
15 site, too.

16 CHAIRMAN BRUCE SHUPP: Ken.

17 MR. KENNETH DARNELL: Before I ask my  
18 real question, where did you get that \$100 million  
19 grant?

20 MS. CALLIE DOBSON: No. That's how  
21 much the trust fund was funded at. We received \$3.8  
22 million over five years from the North Carolina Clean  
23 Water Management Trust Fund, and that's in four  
24 different grants.

25 MR. KENNETH DARNELL: Okay. You  
1 mentioned you get \$107,000 of support from TVA in 131  
2 kind services, what kind of services does TVA  
3 provide?

4 MS. CALLIE DOBSON: That was just  
5 particularly associated with the watershed planning  
6 initiative that's going to improve the ecological  
7 health ratings of Lake Chatuge and Lake Nottely.

8 Those in-kind services were the IPSI  
9 for each watershed and the modeling, the computer  
10 modeling they did. They used Stanford Watershed  
11 Model on the watershed, and then CE Qual II is the  
12 lake model that put it all together.

13 MR. KENNETH DARNELL: Thank you.

14 CHAIRMAN BRUCE SHUPP: Greer.

15 MR. GREER TIDWELL: I have another  
16 question about -- I think it would surprise a lot of  
17 people to think that these particular lakes in this  
18 beautiful part of the country are in fair to poor  
19 condition. You know, as Phil calls them, those  
20 people keep on coming down here as fast as they can  
21 get here, it seems like.

22 Have you done any analysis or have you  
23 seen anything looking at the likely economic effects  
24 of shifting those from good to great in terms of  
25 additional tourism, in terms of additional property  
1 values? What kind of financial background 132  
2 information do you guys work on in that regard?

3 MS. CALLIE DOBSON: Well, a couple of  
4 things. First of all, to address the first part of  
5 your question. People do tend to look at it and it's  
6 clear, you know, pretty much all the way to the  
7 bottom when you stick your toes in and they say, how  
8 can this thing be poor?

9 Well, TVA's ecological health rating  
10 system is designed to -- it compares the lakes to all  
11 the other lakes in the TVA system, but it's also  
12 designed based on where the lake is located and  
13 things of that nature.

14                   So it's a mountain lake and it's not  
15   supposed to have the level of nutrients that it has.  
16   So it's really just an indicator of the declining  
17   process that's going on. It's not that if you take a  
18   sample of the water, you know, it's undrinkable or  
19   something like that.

20                   It's all of the factors, sediment,  
21   fish community, the chemistry itself, the algae  
22   growth and things of that nature that contribute to  
23   that rating. So for the mountain region, you know,  
24   they are fair to poor conditions ecologically because  
25   we are in low nutrient systems naturally and they are  
1   not supposed to have that kind of effect. 133

2                   Kennesaw State University did a big  
3   study in 2000 or 2001 about the economic value of the  
4   mountain reservoirs, the North Georgia mountain  
5   reservoirs specifically, that included Lake Chatuge,  
6   Lake Nottely and Lake Blue Ridge and that -- a  
7   summary of that information is on our website as well  
8   that showed the millions of dollars that are brought  
9   in to our area. Specifically there's a number of  
10   counties that are listed as a result of having our  
11   lakes and having them be in good quality condition.

12                   We have not yet put together actual

13 dollars on how what we're going to do is going to  
14 bring in, you know, more economic, you know, more --  
15 it's going to add to that, I guess, as a result of  
16 the lakes, but when we get the watershed action plans  
17 put together we will be able to because, see, we  
18 don't have the exact -- until we have the plan we  
19 don't know exactly what we're going to do. So we  
20 can't put a price tag on that and so we can't really,  
21 you know, run the financial numbers.

22 But I will tell you, we already have  
23 started thinking about the financial end of things.  
24 In terms of Lake Nottely, we're not going -- it's not  
25 going to be cost effective for us to bring it to good  
1 because of what it's going to require associated with <sup>134</sup>  
2 agricultural best management practices and things of  
3 that nature unless we were just to get some huge, you  
4 know, funding backer or whatever.

5 So our strategy for that particular  
6 lake is probably going to be more of like, okay,  
7 let's hold where it is. Let's improve it as much as  
8 we can that's cost effective and hold it where it is  
9 and not let it get any worse.

10 For Lake Chatuge I think it is cost  
11 effective and within, you know, a short period of

12 time, probably even as small as three to five years,  
13 we could have it back up to good with the things that  
14 need to be done. And a large part of that is just  
15 simply because 30 percent of the issue is the  
16 wastewater treatment discharge. And as they expand  
17 they are going to implement phosphorous reduction, so  
18 it's going to take care of a large portion of the  
19 problem.

20 So I hope I answered your question.

21 MR. GREER TIDWELL: Outstanding.

22 CHAIRMAN BRUCE SHUPP: Any other  
23 questions?

24 Thank you very much, Callie.

25 Appreciate it.

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1 MS. CALLIE DOBSON: Thank you. I  
2 appreciate being here.

3 CHAIRMAN BRUCE SHUPP: All right. Our  
4 next presentation is TVA recreation strategy. And  
5 again, we're a victim of our own success here as far  
6 as moving the program along because Bridgette was  
7 called to a meeting upstairs and so we're going to  
8 have substituting for Bridgette making this  
9 presentation Tere McDonough.

10 Tere, are you ready to go?

11 DR. KATE JACKSON: And I'm just going  
12 to sort of preface the comments a bit. We had talked  
13 a little bit about recreation in another meeting. We  
14 had been working on developing kind of what our role  
15 in recreation is, but I want to give you a little bit  
16 of background that I told Tere she couldn't give.

17 Over the years a lot of things have  
18 happened. TVA built the reservoirs. TVA encouraged  
19 people to come to the reservoirs. TVA built  
20 recreation facilities to encourage people to come to  
21 only certain portions of the reservoir to manage the  
22 impact that the public was then having on the  
23 reservoirs. More people came, as we've talked about,  
24 and that impact grew.

25 The spectrum of activities that the  
1 public really wants to have on those reservoirs has <sup>136</sup>  
2 broadened dramatically. I mean, there are all kinds  
3 of new things people want to do at the water, with  
4 the water, near the water.

5 At the same time domestic  
6 discretionary spending for all state agencies, all  
7 federal agencies has gone down, and kind of the drive  
8 from the federal government, as we have all felt, has  
9 been to get the people who are driving the costs for

10 federal agencies and state agencies to shoulder a  
11 greater portion of the costs of those needs. A lot  
12 of that is the user fees you see and licenses.

13 What that does is drive federal and  
14 state agencies to look for creative ways for  
15 providing that broadened set of expectations for  
16 recreation opportunities with less and less money.  
17 So that drives us to partnerships. That drives us to  
18 divest ourselves of recreation facilities that maybe  
19 a local government is more appropriate to manage or  
20 wants to manage or has some desire to manage that can  
21 make sure that we focus the really scarce resources  
22 we have on the highest priority.

23 All of that drives us to, okay, here  
24 we are, we have these incredible assets, how do we  
25 develop a recreation strategy that takes best  
1 advantage of those assets and doesn't put an undue  
2 burden on either the federal government, the state  
3 government or our ratepayers, but in addition,  
4 provides the set of opportunities that the customers  
5 really want to have?

6 That sets the stage. There is going to  
7 talk about it.

8 MS. TERE MCDONOUGH: Okay. Thank you

9 very much. In September 2003, as Kate said, we  
10 briefed the second term Council on TVA's role in  
11 recreation, and we did talk a lot at that time about  
12 how recreation is very diverse and the spectrum of  
13 users is ever changing.

14 Think back 30 years ago, we didn't  
15 have jet skis on the reservoir. We didn't have  
16 mountain bikers on the land. We continue to have  
17 fishing and boating as high levels of activity, but  
18 we also continue to see new and different uses on the  
19 land and the waters across the reservoir system.

20 We also shared with you how many  
21 agencies are also recreation providers. TVA's  
22 clearly not in this alone. We have local government,  
23 state governments, other federal governments that are  
24 providing recreation opportunities across the  
25 reservoir system.

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1 We also have a host of commercial  
2 providers, the marina operators that we heard about  
3 earlier, commercial campground operators, outfitters  
4 on the Ocoee River. So the recreation needs are  
5 diverse and we have a diverse array of providers.

6 Before I get too deep in talking with  
7 you about the components of the recreation strategy

8 that has been drafted by TVA, I would like to  
9 introduce Jerry Fouse. Jerry has shepherded this  
10 effort for us. We actually recruited Jerry to come  
11 into TVA and help us think through strategically  
12 where TVA needs to head with recreation, and we have  
13 been very pleased with his work and I will probably  
14 lean on him to help answer some of your questions.

15                   You have with your materials that  
16 Sandy provided you a copy of the recreation strategy.  
17 One was emailed out to you as well, but this copy in  
18 front of you has the objectives and the actions  
19 numbered to correspond with my slides. So if you  
20 want to look at something in addition to the  
21 presentation, you might want to look at that copy of  
22 the strategy.

23                   You may find a few different words  
24 here and there between the version that was emailed  
25 to you and the one in front of you with the numbers,  
1 that was simply some editorial cleanups that we did <sup>139</sup>  
2 to try to think -- make things a little more clearer.  
3 We're always struggling to make sure we get it clear,  
4 and perhaps your comments will help us in that  
5 direction as well.

6                   Tomorrow we will spend some time

7 asking you very direct questions about this strategy.  
8 So as you have things that pop into your heads as I  
9 talk, jot those down so we can find a place to  
10 reflect and record those comments tomorrow.

11                   When we talked with the second term  
12 Council we had some very direct comments and  
13 questions at that meeting. This slide shows the  
14 questions that we asked. We talked a lot about  
15 national and regional trends that TVA's recreation  
16 planning should take into consideration.

17                   It's very important, we think, to  
18 understand those trends so that we're not just  
19 addressing today's needs but also looking forward to  
20 tomorrow.

21                   We also talked about what should be  
22 the most critical elements of TVA's recreation  
23 strategy, and your input really provided us a lot of  
24 useful information that helped pull the pieces of  
25 this strategy together.

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1                   We tried to be a little bit visionary  
2 but not too long-term. We looked five years down the  
3 road with the second term Council as to what should  
4 be the components of our recreation program, what  
5 activities should receive emphasis -- more emphasis

6 and less emphasis.

7                   For those of you that weren't with us  
8 at that time, I would like to share with you just a  
9 brief summary of the comments. And, of course, the  
10 detailed transcript is in the record if you would  
11 like to go look at that.

12                   One of the themes from that session  
13 with you is the theme that Kate and I have both  
14 touched on, that recreation on public lands is  
15 increasing and changing in character, and we really  
16 need to understand those changing demands and changes  
17 in character.

18                   The second term Council also told us  
19 that TVA needs to clearly understand these long-term  
20 trends and changes in user demands. We had with us  
21 at that session Dr. Ken Cordell who does a lot of  
22 national research on recreation trends, and he kind  
23 of helped frame our thinking about what those trends  
24 are.

25                   We also heard about public user  
1 surveys, about user satisfaction, user preferences, 141  
2 user needs would be useful and helpful. A key theme  
3 that ran throughout the comments was that we needed  
4 some comprehensive goals to guide our recreation

5 efforts.

6 We also heard that we shouldn't just  
7 be looking at one place, one reservoir, but put this  
8 in a regional context, really understand what is  
9 going on across the Valley.

10 Partnerships, which has been a theme  
11 of our water quality efforts and a theme of our  
12 earlier discussions today, were mentioned as a way  
13 that TVA could bring some other funding to the table.

14 And in that funding vein, we also  
15 heard that it was important to have sustainable  
16 funding, that we shouldn't just put a big boost of  
17 funds in one year and then have it dry up the next  
18 year. We need to know that we have got sustainable  
19 funding for the future.

20 So we have taken all of those comments  
21 and other things that we have heard from various  
22 public forums and public meetings that we have on  
23 different topics and we have put together this  
24 recreation strategy, which is really a framework for  
25 how TVA will provide recreation opportunities, what  
1 role we will play. 142

2 The strategy includes a vision to give  
3 us that kind of future direction, future desired

4 condition to look toward. It includes goals. It  
5 includes objectives and then some pretty specific and  
6 pretty targeted actions.

7                   So what are some of the reasons that  
8 we got into developing this strategy?

9                   One of the key reasons was ROS. We  
10 talk about that a lot in these Council sessions. And  
11 ROS drove home for us how important recreation is to  
12 the people of the Valley. It also showed us that we  
13 had some pretty big gaps in our knowledge and  
14 information.

15                   At the time we began ROS, I couldn't  
16 stand here before you with any confidence and tell  
17 you how much visitation the reservoir system  
18 receives. Now, because of some special studies that  
19 we did through ROS, we know that we get 21.8 million  
20 user days per year, and that's a recreation  
21 calculation which is basically how many visits we get  
22 per year.

23                   One of the things that we'll be  
24 talking about as I go through the presentation is how  
25 we will maintain and keep that kind of information  
1 current now that we have it.

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2                   The recreation vision builds on

3 values. We heard some comments from John about the  
4 importance of understanding values in water quality.  
5 Well, it's true with recreation as well.

6 Our vision statement that we have  
7 drafted is to add value to TVA's mission as a  
8 regional development agency and public power provider  
9 by working in partnership to enhance recreation  
10 opportunities and address unmet needs while managing  
11 resources on and along the Tennessee River System.  
12 So this gives us our look to the future. This is the  
13 mark that we're striking for.

14 And I want to just emphasize a couple  
15 of things there. The word partnership is very  
16 important. We can't be all things to all people like  
17 Miles said she can be, but we can certainly work in  
18 partnership with others who have a role in recreation  
19 to try to meet those unmet needs.

20 This vision aligns directly with TVA's  
21 mission and this slide just provides for you our  
22 mission statement, which is to provide the Tennessee  
23 Valley region with affordable and reliable electric  
24 power, environmental stewardship and leadership in  
25 sustainable economic development.

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1 Well, you might pause and say, well, I

2 don't see recreation up there. Well, we view  
3 recreation as a very key component of our  
4 environmental stewardship efforts, which are largely  
5 managing the Tennessee River System to appropriately  
6 balance all of those mixed benefits, the navigation,  
7 the flood control, recreation, land use, power  
8 production, water supply, water quality.

9                   We have included five goals in this  
10 strategy. The first one comes directly from the  
11 River Operations Study to support diverse recreation  
12 activities through the management of river flows. So  
13 that includes reservoir levels. It includes  
14 tailwater recreation. It includes that whole gamut  
15 of river system operation.

16                   The second goal was more focused on  
17 TVA lands to provide recreation opportunities on TVA  
18 managed land.

19                   The third goal brings in that  
20 partnership theme to provide diverse recreation  
21 opportunities by working in collaboration and  
22 partnership with others.

23                   The fourth goal deals with this area  
24 of information that's so critical to decision-making  
25 and it's also a necessary thing for people who want

1 to recreate to know where they can recreate. So this  
2 goal deals with planning, collecting and managing  
3 information about recreation.

4 So this would encompass what we do  
5 with our website to share information, as well as our  
6 data collection type efforts and sharing information  
7 with other recreation providers.

8 And finally, the last goal brings all  
9 of this together to focus us on integrating our  
10 operational activities and these partnerships that  
11 support outdoor recreation to manage our lands and  
12 waters more effectively, and basically what that's  
13 saying is we're seeking multiple benefits from this  
14 strategy.

15 When we're off doing water quality  
16 initiatives like you have heard about earlier today,  
17 we want to look at, are there recreation  
18 opportunities that are part of this, and, yes,  
19 oftentimes there are because we're doing water  
20 quality work to make the water fishable, to make it  
21 swimmable, and that's recreation.

22 To give you a little more information  
23 about the goals. Goal one deals with the river  
24 flows, as I have talked about. The first objective

25 under that goal is to manage those river flows to 146  
1 support reservoir recreation.

2 You will see things that look familiar  
3 there. The new reservoir operating policy deals with  
4 limiting the drawdown from June 1 through Labor Day,  
5 that's the first action in this strategy. We also  
6 have made a commitment to manage the winter drawdown  
7 to facilitate boat access. So we folded in those  
8 components from ROS.

9 Objective two deals with managing  
10 flows at select locations and times to support river  
11 recreation, and that's more like the Ocoee scheduled  
12 water releases and releases below some of our other  
13 dams to promote and support that tailwater recreation  
14 and whitewater recreation.

15 Objective three under this goal deals  
16 with managing flows to enhance sport fishing. That's  
17 also part of the reservoir operations policy to  
18 provide releases from selected dams for those cold  
19 water fisheries that we heard Chuck talk about with  
20 some of the work that has been done with the  
21 improvements there. It's also to stabilize reservoir  
22 levels during the spring to promote spawning success.

23 And then finally the last objective

24 under that goal deals with scheduling flows to  
25 support special events. We have a lot of reservoir  
1 cleanup efforts to clean up litter and trash. We 147  
2 have boating events that are special events that  
3 needs certain flow requirements to carry those off.  
4 We have things in the fall, like the Fall Color  
5 Cruise. So the strategy acknowledges the way we will  
6 work with others on those scheduled flows.

7 One thing I will note, when you see  
8 the little places where there's three periods on the  
9 slides, that's just where I've kind of paraphrased  
10 the stuff that's in the detailed strategy just so  
11 that we're not covering you up with a lot of words on  
12 the slides. So if you wonder what that is, you can  
13 look at the strategy that's in front of you and see  
14 the full wording there.

15 Moving on to goal two, which is the  
16 goal that deals with providing recreation  
17 opportunities on TVA managed lands. Here we have  
18 three objectives and ten actions that focus on how we  
19 deal with recreation on TVA lands.

20 Objective one ties to our reservoir  
21 land planning process that we will allocate lands for  
22 recreation. And those of you who have participated

23 in that process know that we go through an extensive  
24 public review process to identify the lands that are  
25 most suitable for recreation development and  
1 recreation use in that process. 148

2 We now have about 27,000 acres across  
3 the Valley allocated for recreation, and that's about  
4 9 percent of our total land holdings.

5 Action one provides for us to ensure  
6 public involvement in that planning process. We  
7 already do public involvement, but what we really  
8 want to do by having this in the goal is to make sure  
9 that that public involvement is robust, make sure  
10 that we're getting out and talking to the people who  
11 do recreate on these lands and reservoirs and  
12 understand what they see as the gaps and what needs  
13 do they have that are not being met, what  
14 improvements would they like to see made. So it's a  
15 much more engaged effort than what we have done in  
16 the past.

17 These recreation needs, and  
18 understanding those are also critical when we do  
19 other stewardship work, such as wildlife habitat,  
20 improvement work. Hunting is a recreation activity  
21 and understanding the needs of the hunters will help

22 us better meet their needs.

23 Action two calls for coordination with  
24 peer agencies. We talk a lot one-on-one with other  
25 agencies. We don't often bring them into a forum  
1 like we have with you here to share information and 149  
2 talk with them about what needs they see on the  
3 horizon, what steps that they are taking so that we  
4 are not duplicating efforts and so that we're  
5 building upon our strengths, each one of us  
6 contributing what we're best able to contribute, much  
7 like you have heard in the water quality  
8 partnerships.

9 This will also help us identify new  
10 partners by having this more extensive coordination.  
11 We're thinking here like the state fish and wildlife  
12 agencies, the departments of conservation and  
13 recreation, as well as local recreation providers.

14 Just to give you a sense of the  
15 partnership efforts, some of our recent partnership  
16 activities have included things like working with the  
17 Tennessee Wildlife Resources Agency to co-fund a new  
18 access ramp on Cherokee Reservoir where we had an  
19 identified need for additional boating access and  
20 probably neither TVA nor TWRA would have pulled that

21 off as quickly as we were able to if we had been  
22 trying to do it individually.

23                   We have also had a recent partnership  
24 success in the recreation arena with a non-profit  
25 watershed association on Tellico Reservoir, a group  
1 that goes by the name of WATER, and they have 150  
2 actually come in and constructed several miles of  
3 trail in an area where there was an identified need  
4 for more walking trails.

5                   The second objective here is to  
6 operate and maintain existing developed TVA  
7 recreation areas to meet standards of safety, quality  
8 and environmental protection. We have TVA developed  
9 and managed campgrounds. We have a total of about  
10 hundred TVA recreation areas that includes things  
11 like picnic shelters, boat access sites and other  
12 facilities. So we want to make sure that we're  
13 operating those to meet the user expectations and to  
14 meet these other standards.

15                   Action three puts some emphasis on the  
16 Americans with Disabilities Act and increases  
17 emphasis, heightens emphasis on making sure that  
18 we're meeting Americans with Disability needs as our  
19 recreation areas, things like handicap camping sites,

20 handicap parking spaces, accessed places to fish if  
21 you're in a wheelchair. So there's some emphasis  
22 there.

23 Action four calls for us to evaluate  
24 our campground operations and improve the management.

25 Well, what might that include?

1 Right now TVA does not have an on-line 151  
2 reservation system for camping, for example. So part  
3 of what we would look at under that action would be  
4 is that needed, is that something that we should add  
5 to help people find camping opportunities and make  
6 reservations?

7 Action five provides for us to look  
8 long-term with our capital investments. Right now we  
9 plan new recreation investments, new capital  
10 improvements such as a new boat launching ramp on an  
11 annual basis.

12 We would like to look a little  
13 long-term so that we can be a little more positioned  
14 to meet those long-term needs as opposed to trying to  
15 do this on an annual basis. So we will have a  
16 five-year capital plan.

17 And we'll also be looking there for  
18 some new funding sources, not relying just on TVA,

19 but looking for partner investment from other  
20 agencies, as well as seeking some corporate  
21 partnerships as we heard on the Hiwassee area. That  
22 water quality initiative is receiving some corporate  
23 funding and we think some of these recreation  
24 enhancements would be attractive to groups like  
25 B.A.S.S. Pro, Cracker Barrel, and others. So we will  
1 be seeking those opportunities as well. 152

2 Action six deals with our review of  
3 new construction proposals. And you see the words  
4 there due diligence, basically that's to make sure  
5 there really is a demonstrated need before we launch  
6 out and build something new.

7 Oftentimes when we talk with the  
8 public we hear an expression of need for new access,  
9 but if we sit down and start looking hard with them  
10 about where access exists today and where the needs  
11 are, sometimes there's access areas that they don't  
12 know exist. So we would go through a more analytical  
13 assessment of whether there really is a need before  
14 launching new projects, and there would be an  
15 emphasis on identifying new funding sources and  
16 making sure that we can cover maintenance expenses  
17 before we build new facilities.

18                   Moving on to objective three.

19                   Do you want to take over or do you  
20 want me to continue on?

21                   DR. KATE JACKSON: We think you're  
22 doing just fine.

23                   MS. TERE MCDONOUGH: All right.  
24 That's good. Objective three deals evaluating our  
25 informal recreation areas and what type of visitation  
1 they are receiving, what type of impacts may be                   153  
2 there.

3                   And you may be asking, well, what is  
4 an informal recreation area?

5                   That's basically a place where the  
6 public has decided, this is a great place to go hang  
7 out and picnic. It's a great place to perhaps go  
8 camp, but there's no TVA accommodations there.  
9 There's no TVA facilities there. People have just  
10 decided that this is a really good place to use and  
11 they are using it. Our islands are a good example of  
12 and informal recreation area that receive very heavy  
13 use.

14                   Some of these areas are in need of  
15 additional management. It may be as simple as  
16 providing some waste receptacles. It may be as

17 simple as doing some site restoration, giving some  
18 sites a rest and trying to move people around to  
19 another place. And some of these areas are just fine  
20 as they are, but what we propose to do is take a look  
21 at all of them and see what needs exist there.

22 In doing that we may also find some  
23 places where as new needs emerge we may have some  
24 opportunities for meeting those needs because we will  
25 have a better handle on what's available.

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1 Action eight deals with -- or let me  
2 move on to action ten. I have already talked about  
3 actions eight and nine.

4 Action ten involves developing  
5 management strategies for those most heavily used  
6 areas, the areas that I have talked about that you  
7 can really see the evidence of the use where there's  
8 either some impacts to the site, the grass is gone,  
9 the site's worn out, and we need some additional  
10 management applied there.

11 We're proposing to develop those  
12 management strategies for those sites over the next  
13 three years and launch into the improvements that may  
14 be needed on those areas.

15 Goal three is the goal that emphasizes

16 partnerships, providing for diverse recreation  
17 opportunities through collaboration and partnerships.

18 Objective one is more coordination  
19 among the various agencies and nonprofit  
20 organizations that are engaged in recreation  
21 research. That may be collecting trend data. It may  
22 be looking at what new opportunities people are  
23 seeking, people that are involved in recreation  
24 planning at local, state and federal levels, as well  
25 as people that are actually developing recreation  
1 facilities so that we can, again, just better 155  
2 understand what others are doing, let them understand  
3 the kind of things that we're equipped to do, and  
4 figure out what niches there are that need to be  
5 filled through that process.

6 In action one the focus is on trends,  
7 as well as recreation needs and opportunities. And  
8 we know that there are plenty of folks out there that  
9 have a handle on that kind of information.

10 Dr. Cordell, who we talked with at the  
11 last Council meeting who is down in Georgia, Mark Fly  
12 right over here at the University of Tennessee, they  
13 are both engaged in quite a bit of recreation  
14 research that we think we can apply as we move

15 forward with this strategy.

16                   Basically we're looking to make sure  
17 that we're doing the right things in the right places  
18 by engaging all of these folks.

19                   The second objective in goal three  
20 deals with leveraging resources through these  
21 partnerships and seeking new sources of funding.

22                   Basically it entails coordinating with potential  
23 partners to see what they can bring to the table and  
24 it involves working with the commercial sector to see  
25 if there's things that we can help them do to enhance

1 their operations, much like we're working on the  
2 clean marina initiative, are there other things that  
3 we can help those commercial operators with that will  
4 help them provide a higher level of services to the  
5 public?

6                   A good example of a commercial  
7 operation is Fontana Village Resort that some of you  
8 may have visited, as well as the mini marinas that  
9 are up and down the reservoir system.

10                   And action four deals with working  
11 with those providers of recreation experiences, and  
12 this isn't just people that build facilities. It's  
13 not just the folks that build campgrounds and build

14 ramps, but folks like trout fishing organizations  
15 that might be willing to host a seminar to teach  
16 somebody the skill of fly fishing that will promote  
17 more fly fishing on the tailwaters below the TVA  
18 dams. So it goes beyond the facilities to looking at  
19 that recreation experience and what enhancements  
20 could be made in those experiences.

21 Objective three promotes collecting  
22 and sharing recreation information and visitation  
23 data. As I said early on, we really didn't have a  
24 good handle on the level of visitation that the  
25 reservoir system was receiving before ROS. We knew  
1 there were a lot of people out there, but we really <sup>157</sup>  
2 couldn't quantify that.

3 There are pockets of information that  
4 others are collecting that deal either with  
5 visitation or spending or recreation use patterns  
6 that would be useful to us. So we will be seeking  
7 that data and information to have a stronger base for  
8 looking to the future to see what additional things  
9 are needed.

10 We just recently completed a  
11 recreation facility inventory to catalog all the  
12 recreation facilities up and down the river system on

13 27 of the reservoirs. We haven't quite completed it  
14 for all reservoirs, but we now have a much better  
15 base of information about how many boat ramps are out  
16 there, how many campsites are out there, and that  
17 will help us then better determine if new investment  
18 in new facilities are needed to have that whole  
19 picture of what's available today.

20 Action five calls for us to work more  
21 closely with the states. Each valley state goes  
22 through a planning process called the State  
23 Comprehensive Outdoor Recreation Plans. In these  
24 plans they catalog not only the kinds of recreation  
25 data and information that they have available, but  
1 they also set their own goals for what needs they see <sup>158</sup>  
2 on the horizon that need to be addressed. And so we  
3 want to interface much more closely with them in that  
4 process and be active participants in that process,  
5 as well as benefit from the data and information that  
6 they have there.

7 Action six is where we will use the  
8 data and information that we have as we make  
9 permitting and land use decisions. If someone comes  
10 to us and says, well, I would like to put a marina  
11 over here on this piece of property, one of our first

12 decisions is, is that property allocated for that  
13 use? If it's not, then we have got to decide, do we  
14 even want to consider a change in allocation?

15           Looking at some of this data and  
16 information on where the needs are and where the gaps  
17 are will help us in making those decisions.

18           And then action seven is where we are  
19 going to maintain that data and information that we  
20 collected for ROS about visitation. That was a big  
21 investment of time and effort. We have gotten a lot  
22 of use out of that data and information to date, and  
23 it will be a lot simpler to keep it current than it  
24 will be to try to go recreate it 10 to 20 years from  
25 now.

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1           Goal four is one that deals with  
2 collecting and managing other recreation information  
3 and distributing it to the public via our website and  
4 making better use of other sources of getting that  
5 information in people's hands.

6           Action one provides for completing and  
7 updating this recreation inventory that I mentioned.  
8 We plan to update that inventory on a three-year  
9 cycle, do about 11 reservoirs per year so that we  
10 keep fairly current information on available

11 recreation facilities on the reservoir system.

12 Action two is where we will use the  
13 TVA website to get more information out there to the  
14 public than what's currently available.

15 Where are all of these marinas?

16 Where are the camping opportunities?

17 Where do I go if I want to launch my  
18 boat on Douglas Reservoir?

19 So that's an effort that will be aimed  
20 at getting information in the hands of users so they  
21 can take advantage of opportunities that they may not  
22 be aware exist.

23 Action three involves a little more  
24 broadly looking at how can we more fully distribute  
25 the information that we have available today.

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1 Are there other people that have  
2 websites that perhaps we can get them to link to our  
3 site?

4 Can we use the media in some different  
5 ways to get information out there about recreation  
6 opportunities?

7 What other things can we do to get  
8 information in the hands of people that need it and  
9 want it?

10                   And then many of you are familiar with  
11   TVA's River Neighbor, that's information on the web,  
12   and it covers a lot of ground, provides a lot of  
13   different information, and we want to use that as a  
14   vehicle to spotlight some of the recreation  
15   opportunities, particularly some of the newer  
16   opportunities that are created as a result of this  
17   strategy.

18                   Okay. Objective two kind of taps into  
19   an outlet that we think is a good avenue for getting  
20   information out there, and that's tourism officials.  
21   We have tourism folks up and down the river system  
22   that do a lot to promote the reservoirs, and if we  
23   can equip them with some more information and some  
24   better information, then they can help get  
25   information in the hands of the recreating public.

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1                   Also, commercial mapping vendors as  
2   shown there in action six are beginning to produce  
3   really good high quality maps of the different  
4   reservoirs. They show where fish attractors are  
5   located, they sometimes show where hunting is good,  
6   and we have got good information that we can provide  
7   them.

8                   And, in fact, we had one vendor that

9 we just worked with in the past few months that was  
10 kind of the eye opener to us that that may be a good  
11 way to get information in the hands of folks. So we  
12 will looking to work more with them.

13 And then finally this goal to  
14 integrate our activities that support recreation.  
15 The first objective there deals with balancing  
16 protection of water and land and related resources  
17 with recreation use. We don't want to do anything in  
18 the recreation arena that's not good for natural  
19 resources.

20 So we want to maintain that balance  
21 there, but we also think that there's benefits from  
22 recreation that we can use to get people interested  
23 in things like water quality. If we put a greenway  
24 in along a stream, that's going to attract a lot more  
25 people to that stream, and then we can begin to use  
1 information that we put out about that greenway to <sup>162</sup>  
2 share information about water quality.

3 So we're looking to identify some new  
4 and different kinds of projects that multiply these  
5 benefits and really do some complimentary stewardship  
6 actions.

7 We have a couple of those projects

8 that as we began thinking about this through the  
9 strategy and talking about it bubbled up to the  
10 surface for next year, and we're going to be doing a  
11 greenway in Heywood County, North Carolina and  
12 another one in Virginia along the North Fork of the  
13 Powell River in Scott County to try out this concept  
14 and see how it works.

15 Some other things that we're going to  
16 do, this action two calls for us to take a look at  
17 our land management and resource management planning  
18 activities and make sure we're aligned with local  
19 state and regional recreation interests.

20 We try to do that as we develop these  
21 plans, but some of the plans have been in place for a  
22 while and there's new information out there. There's  
23 either new scort (phonetic) plans or new local plans  
24 that have new information that can help us take a  
25 hard look at what we're trying to accomplish in our  
1 plans and maybe find some ways to achieve our 163  
2 objectives quicker.

3 We will also be looking in action  
4 three at the economic gains of recreation activities.  
5 As we fund projects for shoreline condition  
6 improvement, shoreline stabilization, greenways,

7 water quality improvements, is there a recreation  
8 element there?

9           And much like some of you have been  
10 mentioned earlier, are there economic benefits from  
11 that recreation element that help make that really a  
12 higher priority project for us?

13           If we can get this combination of  
14 multiple benefits, then that type of project is  
15 probably going to be more likely to have TVA's  
16 funding support than a project that's just focused in  
17 one area.

18           Under action four we want to make sure  
19 that we're working with others to deliver a broad  
20 spectrum of diverse opportunities. We're not just  
21 about building campgrounds or we're not just about  
22 building boat ramps. What we want to be about  
23 through this strategy is meeting the needs that exist  
24 among the recreating public. And, you know,  
25 sometimes it won't be TVA meeting those needs but it  
1 will be somebody that we can bring to the table that  
2 is able to meet the needs.

3           I have mentioned just a little bit  
4 about some of the things we have got planned for next  
5 year, but I'd like to give you just a quick summary

6 of some of the new and different things that we're  
7 planning to do next year that have been brought about  
8 by the thinking from this strategy or other really  
9 closely related efforts.

10 And, of course, we're going to operate  
11 the reservoir system with recreation interests  
12 reflected in that operation consistent with our  
13 reservoir operations policy and this proposed  
14 strategy.

15 We're going to assess our 11  
16 campgrounds and look at what needs to be improved  
17 there.

18 Do we need more handicap access?

19 Do we need more electric and water  
20 hookups?

21 Do we need more primitive camping  
22 experiences?

23 Are we getting enough revenue to cover  
24 our expenses?

25 Are there ways that we can change how  
1 we're operating the campgrounds either to have a  
2 longer season or a shorter season to help us out  
3 financially?

4 We're going to be looking at these

5 informal recreation areas that I mentioned and  
6 assessing what's working there, what's not working,  
7 what enhancements could we offer that would enhance  
8 the users' experience, what types of things needs to  
9 be done different there.

10 We have got these two new proposals  
11 for the greenways that really show how water quality  
12 and recreation work hand-in-hand that we will be  
13 funding.

14 We're initiating the updating of the  
15 recreation inventory data, where are all of those  
16 recreation facilities, not just the TVA facilities,  
17 but the other public facilities, the commercial  
18 facilities on 11 reservoirs.

19 So what's going to come out of all of  
20 this?

21 What type of results we expect are  
22 summarized here. For one thing we feel that we're in  
23 a position now to reaffirm our commitment to  
24 recreation. Recreation is important to people of the  
25 Valley and it's important to us, and these goals,  
1 actions and the vision statement are designed to  
2 reflect that commitment.

3 We think there's going to be more

4 diverse land and water based recreation opportunities  
5 as a result of this strategy. We're going to better  
6 understand what types of recreation are occurring,  
7 what changes are out there in the recreation fields,  
8 what new demands are just around the corner, and  
9 who's in a -- in the best position to meet the needs.

10 We will have that better understanding  
11 of the long-term trends, it won't just be our gut  
12 sense, but we will have some data from other  
13 recreation professionals that will help back up that  
14 gut sense so that we can make the right decisions  
15 about TVA's investment in recreation.

16 We will better understand user  
17 satisfaction as well as user preferences. We will  
18 have this maintained and updated inventory so that  
19 you and other folks that want to use the reservoir  
20 system will know what opportunities are available  
21 today.

22 You know, lots of people get tired of  
23 going to the same place, but it may be the only place  
24 they know about, whether it's for hunting, boating,  
25 fishing, whatever. So there would be a lot better  
1 information available to the users.

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2 And we think the increased

3 partnerships and collaboration can do nothing but  
4 enhance the user experience by making sure that we  
5 have got the best available information about the  
6 interests and the needs.

7                   And then we do think we will meet that  
8 objective that you mentioned for sustainable funding,  
9 both by having a longer term capital investment plan,  
10 as well as bringing more funding sources to the  
11 table. The funding won't just be on TVA's shoulders.

12                   So that concludes this presentation.  
13 And now that Bridgette is here, we will let her  
14 answer your questions.

15                   DR. KATE JACKSON: I also wanted to  
16 just to take a moment and recognize Director Skila  
17 Harris who slipped in just as Tere was beginning her  
18 presentation. We appreciate your visiting with us.

19                   DIRECTOR SKILA HARRIS: Thank you. I  
20 just wanted to thank each of you for your  
21 participation in this Council. I think you-all,  
22 either from your own experience or from tales you  
23 have heard told from past Councils, know that the  
24 Board really takes seriously how you respond to the  
25 questions that we ask, you know, how could we do this  
1 better and what opportunities are we missing.

2                   So we have really benefited from the  
3 past incarnations. It's really been valuable to us,  
4 and I encourage you to continue your good work. And  
5 I admire you for being able to sit so patiently  
6 during a presentation after having lunch at  
7 Calhoun's.

8                   So enjoy the rest of the day and your  
9 evening this evening, and I may stop back in tomorrow  
10 to make sure you're still working because, you know,  
11 you want to get your pay. We want to make sure that  
12 you work hard enough to earn the big bucks you're  
13 getting paid to do this.

14                   So thank you very much.

15                   CHAIRMAN BRUCE SHUPP: Thanks, Skila.  
16 Thank you very much, Tere. Do you want to take  
17 questions or do a tag team here?

18                   MS. TERE MCDONOUGH: We will do it  
19 together.

20                   CHAIRMAN BRUCE SHUPP: All right.  
21 Now, I'll remind everybody that we will discussing  
22 the three questions tomorrow which we have to answer  
23 for TVA. So the questions you ask today will enable  
24 you to get out the answer to those questions  
25 tomorrow. So with that I start out with Michael.

1                   MR. MIKE BUTLER:  Tere, a couple of  
2 thoughts that came across my mind as I was listening  
3 to your presentation that I took notes on, and  
4 they're more of a philosophical or conceptual nature  
5 with regards to the goals.

6                   Goal five, objective one, touched on  
7 part of it with the natural resources and balancing.  
8 I don't know whether I am making a request or a  
9 statement or a combination or both.  I think it's a  
10 combination of both.

11                   I guess I would encourage TVA to maybe  
12 revisit or visit the possibility of putting the  
13 philosophy in the goals that -- where you better  
14 integrate the natural resources section into the  
15 recreation part of it where you start talking about  
16 it.

17                   And the image I have in mind are most  
18 of the state wildlife agencies.  Their mandates are  
19 typically, and I know this isn't your mandate, but it  
20 could be weaved into a goal or woven into a goal  
21 where the focus is on maintaining the quality of the  
22 resource because it is what attracts and provides the  
23 medium, which recreation is to use throughout the  
24 Valley.  And I really feel strongly that needs to be

25 tied at the goal level a lot more visibly.

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1                   And here's the reason why. When we  
2 get down the road into user conflicts, and it's  
3 already happening in State of Tennessee, what's going  
4 to happen is if we can't all commonly point to an  
5 issue -- if we're dealing with an issue and if we  
6 can't point to a fact and agree on the fact that  
7 the goal -- one of the goals has to be to maintain  
8 the goose that's laying golden egg, then that goose  
9 is going to end up being impacted in a way that  
10 somebody is going to lose.

11                   I think the term balance carries the  
12 connotation that people are going to have to give and  
13 take, and that's in reality what will happen, but I  
14 think if it could be moved up the hierarchy into a  
15 goal that says that within the realm of recreation we  
16 want to make sure that we focus on the fact that we  
17 understand that these natural resources are the  
18 medium by which recreation is attracted and  
19 maintained in the Valley.

20                   Now, I know that that philosophy is  
21 carried throughout a lot of the staff and then in a  
22 lot of -- and even in the bigger mission statement,  
23 but I think it needs to be reflected in the goals.

24 MS. TERE MCDONOUGH: Hold on to that  
25 though. Stay awake late tonight and figure out what  
1 you think it ought to say and we will talk about it 171  
2 tomorrow.

3 MR. MIKE BUTLER: Sure. The second  
4 thought that I have, and this is a lot less heavy, I  
5 would say, one of the things that struck me is that  
6 it might be appropriate to consider also adding a  
7 portion that talks about looking at methods and ways  
8 to promote recreation that don't require intensive  
9 manpower management, i.e., coming up with innovative  
10 approaches where you don't have to spend a lot of  
11 money to maintain it, whether that be pulling in  
12 partners, which is covered in a lot of the  
13 information you covered, or -- and the analogy I am  
14 drawing in my mind is channelized river systems  
15 versus non-channelized river systems.

16 Channelized river systems take a lot  
17 of money, a lot of tax dollars to maintain them. If  
18 you restore them to a non-channelized system, you can  
19 just do light-touch stuff. If you take that concept  
20 and apply it to recreation, it might be a way to do  
21 more with less money. That was the only concept that  
22 I could come up with.

23 MS. TERE MCDONOUGH: Good comment.

24 CHAIRMAN BRUCE SHUPP: Here we go. I  
25 go with Bill.

1 MR. BILL TITTLE: I would assume that  
2 this strategic plan is system wide generally?

3 MS. TERE MCDONOUGH: Yes. Yes.

4 MR. BILL TITTLE: I think Buff told me  
5 on the bus tour that you have seven watershed areas.

6 MS. TERE MCDONOUGH: Uh-huh.

7 MR. BILL TITTLE: Would it improve  
8 this strategic plan to break part of it down to a  
9 watershed specific planning?

10 The overall goals are the same, many  
11 of the factors are the same, but some of the  
12 objectives would be different. For instance, Ocoee  
13 is whitewater and Huntsville and Florence and  
14 Chattanooga and Knoxville and others are more  
15 recreational boating, power boating specifically.

16 MS. TERE MCDONOUGH: That's a good  
17 point to raise again tomorrow when we take comments.

18 One elaboration that I would make is  
19 that those seven watershed teams will be the  
20 delivering mechanism for this strategy. It's not  
21 going to happen here in the West Tower. It's those

22 watershed teams networking with their counterparts as  
23 well as some state level coordination that will make  
24 it happen.

25 So, in essence, those local issues and  
1 local needs will drive what's done. There may well <sup>173</sup>  
2 be a way to put more attention to that with the  
3 strategy.

4 CHAIRMAN BRUCE SHUPP: Tom and then  
5 Austin.

6 MR. TOM LITTLEPAGE: I guess, Tere,  
7 and I don't even know if this is appropriate since I  
8 am kind of new to the Council, but is there a place  
9 in here where TVA steps back and looks at how they  
10 manage recreation as a whole and where there may be  
11 opportunities to restructure and to provide stronger  
12 emphasis on types of recreation across the system or  
13 is that something that's buried in here or --

14 MS. TERE MCDONOUGH: Well, that's kind  
15 of one of the intents overall in having the strategy  
16 and having goals that drive it and having us taking a  
17 harder look as not only the available information but  
18 what others that are in the business can tell us so  
19 that -- you know, that's certainly an intent, but it  
20 may have been so much of an intent that it, you know,

21 doesn't come out as clearly as you might like.

22                   You know, that's -- again, you-all are  
23 all making comments that would be great to capture  
24 tomorrow. So be sure to hang on to those.

25                   CHAIRMAN BRUCE SHUPP: Austin.

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1                   MR. AUSTIN CARROLL: My comment gets  
2 to THE first thing that Mike was saying there. I  
3 guess it seems like a real dilemma to me to try to  
4 determine -- I know TVA has got some land that, you  
5 know, is choice land for development purposes and  
6 that kind of thing.

7                   How do you balance that with future  
8 recreation needs where, you know, the -- even though  
9 the land may not be used for recreational purposes  
10 now, because of increasing population and the  
11 decreasing area that people have to recreate in,  
12 holding on to that because, you know, the tendency is  
13 to want to, you know, in the here and now to use it  
14 for developmental purposes, to make sure that we're,  
15 you know, holding lands for not only now but in the  
16 future?

17                   MS. TERE MCDONOUGH: I think that's  
18 one reason that we want to put emphasis on trends.  
19 What are the things that are happening today telling

20 us about tomorrow so that we can, you know, look to  
21 the future as well as take care of today's needs.

22 And it is tough, but that's part of  
23 what we do with our reservoir land planning work  
24 already is look at least ten years down the road, and  
25 perhaps we need to look even further at what the  
1 expected needs are so that we can try to balance and 175  
2 accommodate those needs.

3 CHAIRMAN BRUCE SHUPP: More questions?

4 Thank you, Tere. Good job.

5 Before we adjourn, Rick has some --

6 Rick Riggins has some information about  
7 transportation to our dinner tonight.

8 Rick.

9 MR. RICK RIGGINS: In your package you  
10 have two maps that kind of show you how to get to  
11 where dinner is. Our lawyer has told me to tell you  
12 that one of them won't work.

13 MR. WALKER:

14 MR. BARRY WALTON: I went down through  
15 West Knoxville and the Papermill exit from the  
16 interstate is completely under construction and you  
17 can't go the way that map says you can go, and I'm  
18 not sure I can explain how you would have to go.

19 DR. KATE JACKSON: I can.

20 MR. RICK RIGGINS: The easiest way is  
21 take the other one that doesn't get you on the  
22 freeway because that one will work. Basically you  
23 just follow a couple of turns and it puts you on  
24 Cumberland Avenue, which is the road you stay on. So  
25 it's not very difficult to follow that way.

1 The other thing we need to know is how <sup>176</sup>  
2 many people, rather than going out there trying it on  
3 your own, would actually prefer to go like with us?  
4 So if anybody would raise your hand if you intend to  
5 ride with a TVA person so we will know how many cars  
6 we need as opposed to going yourself?

7 All right. What we show here is 5:45  
8 in the lobby. If you-all will be there, we will have  
9 enough vehicles to get you there and hopefully back.

10 Thanks.

11 CHAIRMAN BRUCE SHUPP: Anybody have  
12 anything else?

13 We were going to introduce the  
14 questions that's on the agenda, but the questions are  
15 quite straightforward. Everybody look at them  
16 tonight and get prepared tomorrow to really get into  
17 them and to provide lots of good comments. We can

18 talk among ourselves tonight at dinner.

19 So any questions? Any further  
20 business before we adjourn?

21 DR. KATE JACKSON: I just want to say  
22 one thing, which is, I want to thank Tere for pinch  
23 hitting, and I think she did a great job. So there  
24 is some bench strength at TVA, I just want to say  
25 that.

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1 Thank you, Tere.

2 CHAIRMAN BRUCE SHUPP: All right.  
3 We're adjourned until the 5:45 dinner. Thank you.

4 (The Council meeting was adjourned and  
5 reconvened on August 24th, 2005 at 8:00 a.m.)

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