# U. S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION

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# REPORTER'S TRANSCRIPT OF PROCEEDINGS

Phoenix, Arizona January 4, 2007 6:06 p.m.

### PREPARED BY:

DOREEN C. BORGMANN, RMR, CRR Certified Reporter Certificate No. 50644

# PREPARED FOR:

U. S. Department of the Interior Bureau of Reclamation

(Original)



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-Page 2 -1 REPORTER'S TRANSCRIPT OF PROCEEDINGS 2 taken in the Public Scoping Meeting regarding the Long 3 Term Experimental Plan for the Operation of Glen Canyon Dam and Other Associated Management Activities, at the 5 Embassy Suites Phoenix Airport, Cholla Room, 1515 North 44th Street, Phoenix, Arizona, on the 4th day of January, 2007, commencing at the hour of 6:06 p.m. of the said day. The proceedings were reported by Doreen C. Borgmann, RMR, CRR, and a Certified Reporter in and 10 for the County of Maricopa, State of Arizona. 11 12 APPEARANCES: 13 For the Bureau of Reclamation: RANDALL PETERSON DENNIS KUBLY 14 DAVE SABO 15 JAYNE KELLEHER 16 17 1.8 19 20 21 22 23 24 25

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#### PROCEEDING

MR. PETERSON: Good evening. After a short burst of technical difficulties, I think we're ready to start. My name is Randy Peterson. I'm the manager of the Environmental Resources Management Division, Salt Lake Bureau of Reclamation.

Everybody hear okay? A little bit louder. Is that okay? Okay. Great.

Did everybody sign in?

Okay. Appreciate that.

You might have noticed as you signed in that at the table right there there's a number of Federal Register notices, fact sheets, and other information. Make sure you take whatever piece of information you'd like.

And since there's just a few of us here tonight, maybe it makes some sense to introduce ourselves to each other.

Dennis, go ahead and start.

MR. KUBLY: I'm Dennis Kubly. I work with Randy in Salt Lake.

MR. KNOWLES: Glen Knowles, Fish and Wildlife Service.

MS. SCHUSTER: Laura Schuster, National Park
Service, Grand Canyon.

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          MS. JALBERT: Linda Jalbert, National Park
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    Service, Grand Canyon.
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          MR. WERNER: Bill Werner, Arizona Department of
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   Water Resources.
 5
          MR. LOCANDER: Aaron Locander, citizen.
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          MS. BECKMAN: Natalie Beckman, citizen.
 7
          MR. RICE: Ken Rice, Bureau of Reclamation, Glen
   Canyon Dam.
 9
          MR.GOCKEL: Rich Gockel, citizen.
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          MS. BALSOM: Jan Balsom, National Park Service.
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         MR. SPILLER: Sam Spiller, U.S. Fish and Wildlife
   Service.
12
13
          MS. CHEONG: Holly Cheong, Southern Nevada Water
14
   Authority.
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          MR. MELIS: Ted Melis, U. S. Geological Survey.
16
          MR. LEHR: Phil Lehr, Colorado River Commission
  of Nevada.
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18
         MS. ERLANDSEN: Evelyn Erlandsen, here as a
19 citizen.
20
         MR. CHRISTENSEN: Kerry Christensen, Hualapai
21
   Tribe.
22
          MS. JAMES: Leslie James, Colorado Energy
23 Distributors Association.
24
         MS. CARROLL: Stacey Carroll, Bureau of
25
  Reclamation.
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PUBLIC SCOPING MEETING - PHOENIX, ARIZONA - JANUARY 4, 2007 Page 5 1 MR. SABO: Dave Sabo, Bureau of Reclamation. 2 MS. KELLEHER: Jayne Kelleher, Bureau of 3 Reclamation. 4 MR. LI: Paul Li, here for Bob Lynch. 5 MR. PETERSON: Jan? 6 MS. BALSOM: I already did. 7 MR. PETERSON: Okay. Great. 8 Well, welcome. We appreciate your coming 9 tonight. The purpose of our discussion tonight and the opportunity for you to have input and comment on a 10 11 proposed Environmental Impact Statement that Reclamation 12 is going to prepare over the next two years. 13 We'll be describing tonight some of the historic information that the Adaptive Management 14 Program has unpaved, if you will, or discovered, 15 16 revealed over the last decade and the need for 17 additional experimentation below Glen Canyon Dam. We'll talk about the schedule. We'll talk 18 about how you can be involved. And we'll talk about 19 20 ways for you to obtain information. 21 We'll spend just a few minutes as we 22 discuss the Adapted Management Program for those of you 23

that might not be familiar with it.

24 And we primarily want to hear from you. 25 And specifically what we want to hear are issues that

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are important to you and you think should be covered, discussed, and evaluated in the Environmental Impact Statement, ideas for alternatives that should be discussed, and methods or processes of analysis that you would suggest we use. So we are here tonight to listen.

Glen Canyon was authorized in 1963 -- 1956, completed in 1963, and is located about 15 miles upstream of Lee's Ferry. The compact point between the upper and lower basins on the Colorado river.

It was designed as a water storage unit, the keystone really of the Colorado River Storage Project. And its purpose was to ensure that the requirements of the Colorado River Compact of 1922 could be met. In other words, that the upper basin could deliver no less than 75 million acre feet every ten years to the lower basin states of Nevada, Arizona, and California. And this large storage unit provided the insurance, if you will, that this release could be met during drought periods.

And, of course, we've been through a recent drought period of five or six years when the storage of Glen Canyon was called on to make those deliveries. And without it Glenn Canyon would not have been able to help make those deliveries, and uses in the upper basin would have been severely limited, and Lake Mead would be

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nearly dry as we speak.

In 1992, Congress passed and the president signed the Grand Canyon Protection Act. This act required the things that you see on the screen right here. The EIS was completed in the middle of 1995, and the record of decision was signed in 1996.

The EIS and the response to the Grand
Canyon Protection Act also established the Adaptive
Management Program. This was established as a federal
advisory committee where this committee makes
recommendations to the Secretary of the Interior.

The Secretary then responds to these recommendations, and they can cover the gamut from dam operations to specific things like non-native control or temperature warming, specific actions the park service might take, for example, as managers of the National Park in the Grand Canyon.

It also required that these actions, these recommendations and actions the Secretary would take to protect the Grand Canyon would be done in accordance with the existing water delivery requirements, and that includes the Mexican Treaty requirements, if any, Colorado River Compact, and various statutes that are in place.

In 1997, the Glen Canyon Dam Adaptive

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Management Program was established, and in the decade since then, there's been a number of experiments conducted to try and better understand the ecological effects of man's actions in the Grand Canyon. Human activity such as, not only dam operations, but also the influence and effect of non-native species, of other management policies such as recreation or visitor use, and the effect of natural processes not related to dam operations.

We should spend a minute and talk about beach/habitat-building flows. They're cornerstone to much of the experimentation that has occurred. These are flows that are above power plant capacity, at least 40 to 45,000 CFS when the power plant capacity is about 30,000 CFS, and their purpose is to stir up the sediment in the main stem and rebuild beaches downstream of the dam. They also help reestablish and rework back water deposits, eddy areas downstream that are key to native fish habitat.

In 1996 this was the first test of such an event, and there was quite a bit of skepticism about whether or not it was even going to work at all. And so it was a rather unique experiment.

In 2000, we conducted a four-month period of steady low flows out of the dam during the summer.

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This had the effect of significantly warming the releases as they flowed down from the dam through the Grand Canyon, and the purpose of this experiment was to determine if steady or low flows would have a positive effect on the native fish community out in the stream.

The third bullet, the translocation of ambersnail and chub, were related to trying to expand the range of these two endangered species beyond their present habitats. It really was in response to the fourth -- the fifth bullet, actually, and the fourth bullet, an additional test of beach/habitat-building flows and other actions designed to better understand the ecosystem.

about this time as well, you may have heard about the removal of non-native trout from the area around the confluence with the Little Colorado River.

And so these things were pretty integrally related.

That non-native removal continued for four years and has essentially eliminated to a great degree the trout population near that confluence.

That confluence is important because it is also the centroid of the location of the humpback chub in the Grand Canyon. Most of the chub in the canyon use the Little Colorado River for much of their life stages.

About this time as well the drought had

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reduced the level of Lake Powell such that the distance between the water surface elevation and the power plant intake penstocks was significantly reduced and the water naturally warmed. Typically, the releases have been 9, 10, 11 degrees Centigrade, and they got as high as pretty close to 15 degrees, I think, in 2005. And as the water warmed, as it went downstream, it exceeded the threshold of 16 degrees Centigrade that's required for humpback chub spawning and recruitment. And so we'll be talking a little bit or showing you a little bit of information about that.

Now, in connection with all these experimental efforts, Reclamation conducted NEPA compliance and compared environmental assessments on these actions. That website at the bottom of the page is where you can find those. This will be important because this current effort will build upon all these actions. It will build upon the 1996 EIS. It will tier off that. It will tier off these existing or previous environmental assessments. And it will use the knowledge that has been gained through the past decade of scientific investigation under the Adaptive Management Program.

This is the Proposed Federal Action. Why don't you take a minute and read that. I want to make

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sure that it's clear. There's a couple important points here.

When we say a Long-Term Experimental Plan, the duration of the proposed action is not stated with certainty. I know the Adaptive Management Program has been talking about ten plus or minus years in length, but it's not fixed. So if you have comments on that, we would appreciate that.

The focus is an experiment. There are many things that we don't know or won't be able to predict about the outcome of these actions. And so the Environmental Impact Statement will try and evaluate the proposed alternatives for this experiment. But, frankly, there are going to be some things that we won't know the answer to, and this is the experimental nature of this action.

You should note that there's more involved than just dam operations, and we'll get into that in a minute. Modifications to the intake structures. This is along the lines of a temperature control device designed to physically take the water from higher up in the reservoir so that it's warmer.

There might be other things included in our alternatives such as the continued non-native removal -- non-native fish removal.

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But there might be other actions, too.

That's part of the reason for the public meeting tonight. So if you have ideas of things that we should consider as part of this experiment, we'd like to hear from you.

We'll go into a specific Purpose and Need Statement that we crafted. And this is published in our Federal Register notice. There are two key parts for the purpose of this action. One is the scientific understanding, and one is downstream resource protection. We would expect the alternatives to be able to meet the purpose and need must accomplish these two objectives. So rigorous scientific monitoring has been a keystone to the past decade of effort for the Adaptive Management Program.

And we would expect that, to meet the purpose and need statement, the alternatives would have to produce answers to key questions about downstream resources and the effect of the previous slide's characteristics of each alternative. So if we're going to evaluate a temperature control device, for example, at the end of our experiment, we should be able to answer the question did this work or not. And you could make the same type of argument or question about each part of the various alternatives.

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The second half to the paragraph are some ideas on things we have included in the Federal Register notice that could be or should be addressed. Those are primarily dam and other management action related. You can see there are still some unanswered questions about habitat building flows, some question about the effect of non-native removal, temperature warming, and flow releases. And so those are the kind of things that we intend to be able to address through the experimental duration of the program. This is why it's needed.

The first half of that paragraph is pretty much a verbatim citation from the Grand Canyon

Protection Act related to resource protection. The second half relates to how the Secretary of the Interior makes decisions about what actions to take, not only with respect to dam operations, but also actions within the National Park, for example, or other resource impacts between Lake Powell and Lake Mead such as non-native removal, things like that.

So as the result of this experimental program, if the Secretary has a better understanding of how the ecosystem respond s to these specific actions, he or she will then be able to make a better decision when addressed with those concerns or questions.

Now, as I mentioned before, this current

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effort will tier off the previous documents. The Adaptive Management Program has already started to address the question of this experimental plan. In fact, it, for the past about a year and a half, I think, has had numerous meetings about how to structure this experiment, what kind of things should be studied.

They've just completed some recommendations to the Secretary putting forth three or four different options that primarily relate to differing types of dam releases, but also include the consideration of a temperature control device and non-native removal and other actions. The aspects of those Adaptive Management Group recommendations we posted to our website so you can peruse them with great detail. But we'll be building off those efforts as we go through this EIS.

This is what we've done to date. Copies of those Federal Register notices are on the back table.

Now, we've had a number of opportunities for interaction with the public, but we will basically have the next two months to offer the public opportunity to comment on this proposed action. We have a copy of this Power Point presentation on the back table. And in that, you'll have this slide here, so you'll be able to get our address and e-mail addresses and things like that by which you can send us comments. And we think we're

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going to be able to move steadily through this process.

Our goal is to have a final record of decision in about two years. Now, to do that, we will conduct Scoping Meetings today and tomorrow in Salt Lake. We expect to be able to publish the Scoping Report by March, have alternatives by May and then take about a year to prepare a draft. We'll have a number of cooperative agencies working with us. And we know this is ambitious, and it also comes at a time when we've got a lot of work to do on the shortage EIS for the lower basin, shortage criteria as well. It's very ambitious, but we believe it's very doable.

I think I'd like to stop here and see if you have any questions initially and then open it up for your comments.

In making comments, if you could come to the front of the room, that would be helpful and use the mic. That way the court reporter can hear you more clearly. Spell your name, if you would, please. I know you've signed in as wanting to make a comment, and that's great, too.

So first of all, any questions at all? Norm.

MR. HENDERSON: Randy, in the proposed action, you say that it's. The proposal is to make -- develop

and adopt a long-term experimental plan. And is the intention there to include those non-flow actions as part of the experiment, an actual experiment, so that they would actually be tested through some kind of experimental design?

MR. PETERSON: Everybody hear the question okay? He's basically asking in this experimental design, would non-flow actions also be rigorously tested through this experimental plan EIS to be able to produce scientific results at the end of that plan. The answer is yes.

I think fundamental to addressing a solid science program to this effort is the identification of core or key hypotheses or questions that will focus our efforts on specific resources or specific actions that we might take in response to trying to protect those resources. And at the end of that effort, we would expect to be able to answer those questions.

Yes, sir.

MR. GOCKEL: Is the purpose of the non-native controls -- at the end of this study, would you have a better way to remove trout upstream from these areas? Is that the goal?

MR. PETERSON: Okay. That's a good question. Is the goal to remove trout upstream from Lee's Ferry for one, and is the purpose of the experiment to find a

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better way to do that? I would say probably no and no is the answer to the question. The non-native removal effort has been downstream of Lee's Ferry. The area upstream of Lee's Ferry has been viewed by the Adaptive Management Program as a blue ribbon trout fishery and pretty much left alone with respect to that. The humpback chub are generally downstream. And it's the interaction between the two that's of concern.

So the purpose, if it's part of this experimental plan in the end, might be, for example, to determine the interaction between the native and non-native and answering the question has reducing the trout downstream had a positive effect upon the endangered humpback chub. That might be one question. But frankly, we're here to listen to your views on what those questions should be. That answer the question? Okay.

MR. GOCKEL: Yes.

MR. PETERSON: Any other questions. Jan. Jan -- I'm sorry. Mary Barger.

MS. BARGER: Did you decide who the cooperating agencies will be?

MR. PETERSON: Yeah. We're in the process right now of sending out letters to the cooperating agencies. That should be coming to you shortly. But generally,

there will be quite a few of the members of the Adaptive Management Workgroup, certainly all of the Department of Interior agencies that are part of that, tribes, state governments, local government agencies.

That's a good leading question. We intend to use the Adaptive Management Program as the mechanism for interacting with our cooperating agencies. And so part of every Adaptive Management Workgroup meeting will be dedicated to an update on the progress of the EIS. For example, disclosure of alternatives, disclosure of methods of analysis, progress in terms of evaluating the impact and things like that.

Other questions? Norm.

MR. HENDERSON: With regard to the cooperating agencies, are we going to develop a specific cooperative agreement between us cooperating agencies and the Bureau of Reclamation for completion of the interaction between us and you for the EIS.

MR. PETERSON: The question is are we going to have a Memorandum of Agreement between the cooperating agencies and Reclamation. I don't know the answer to that yet. Maybe; maybe not.

MR. PETERSON: As you might tell from the presentation, we're just barely getting started in terms of public interaction and, frankly, the development of

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the core foundation issues to be developed in the EIS. So I think that's why your public comments are very important to us. Jan.

MS. BALSOM: Randy, could you speak a little bit more about the relationship with the Settlement Agreement in the Federal Register notice, to kind of put this in context.

 $$\operatorname{MR.}$$  PETERSON: The question was could I talk a little bit more about this EIS in relationship to the Settlement Agreement.

First of all some background. Reclamation was sued -- oh, seems like it's almost a year ago -- for failure to comply with NEPA, ESA, and the Grand Canyon Protection Act in protecting downstream resources. We, of course, don't believe that. And in the discussions that ensued since the plaintiffs filed that lawsuit we reached agreement. It was memorialized in a Settlement Agreement that required Reclamation to take some specific actions. That's the last year of the Settlement Agreement.

This process of trying to develop an experimental flow plan has been going on at least a year and a half. We've recognized the importance of becoming very rigorous in trying to answer the scientific questions rather than just a continued monitoring and

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research without a real specific direction. And I don't mean to sound critical at all. I'm not being critical at all. But I think it's -- everybody recognized the time has come for us to focus on core questions and get them answered and then take the actions that the results would indicate should be taken.

So what happened during the potential lawsuit and the Settlement Agreement is that we saw a pretty good marriage between the completion of this effort, for example, and meeting what the plaintiffs wanted to do. And that led to a Settlement Agreement. That required that we publish a Federal Register notice by the end of January, 2007, that we initiate Section 7 Consultation, I think by May of 2008. And so our process here marries very well with what was agreed to with the plaintiffs. That answer the question okay?

Okay.

MR. PETERSON: Well, we'd like to -- right now like to open it up to comments from you if that sounds agreeable. I know at least two people have indicated they'd like to make a comment. And just --

Bill, come on up.

This is Bill Werner. He's the first commenter.

Just a reminder that your written comments,

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whether it's by e-mail or letter, will carry the same weight as any verbal comments made tonight. In fact, we often prefer the written comments so we can have greater expansion of your thoughts. But we've got a court reporter that will capture your comments verbatim. Remember to spell your name. And take it from there, Bill.

MR. BILL WERNER: Where are we going to do this?
MR. PETERSON: Here is fine.

MR. BILL WERNER: Okay. My name's William E. Werner, Environmental Program Manager, Arizona

Department of Water Resources, 3550 North Central

Avenue, Phoenix, Arizona 85012.

I'm here today to present scoping comments of the Arizona Department of Water Resources. Arizona is host state to a portion of Lake Powell and Glen Canyon National Recreation Area, Glen Canyon Dam, and Grand Canyon National Park. These are important assets to the State.

Dam and associated energy production are also important assets to Arizona. Thirty-five percent of Arizona's overall water use is from the Colorado River with a majority of that water released from Glen Canyon Dam. Electrical energy produced at the dam is utilized by

municipal, agricultural, tribal, military, and rural customers scattered across Arizona.

In developing long-term experimental plan alternatives to, as described in the Federal Register notice, increase understanding of the ecosystem downstream from Glen Canyon dam and to improve and protect important downstream resources, a balance of benefits should be maintained.

As recommended by the Glen Canyon Dam

Adaptive Management Workgroup on December 6, 2006, the

alternatives should maintain the balance of benefits to

all resources as described in the Record of Decision for

the Glen Canyon Dam EIS while focusing on humpback chub

and sediment resources. Insofar as they are consistent

with this balance and focus, the elements of the

alternatives should include a range of flow events

patterns and timing, include non-flow experiments, be

based on credible science planning, maximize hydro-power

capacity and flexibility to the extent possible and

address tribal and cultural resources.

We note that Section 1802 of the Grand
Canyon Protection Act requires "Consistency in
establishment and implementation of long-term monitoring
programs and activities by directing that the Secretary
shall operate Glen Canyon Dam in accordance with the

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additional criteria and operating plans specified in Section 1804 and exercise other authorities under existing law in such a manner as to protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established, including but not limited to natural and cultural resources and visitor use; and that the Secretary shall implement this section in a manner fully consistent with and subject to the Colorado River Compact, the Upper Colorado River Basin Compact, the Water Treaty of 1944 with Mexico, and the decree of the Supreme Court in Arizona vs. California and the provisions of the Colorado River Storage Project of 1956 and the Colorado River Basin Project Act of 1968 that governed allocation, appropriation, development, and exportation of waters of the Colorado River Basin." We look forward to working with all involved parties to develop alternatives that provide a balance of benefits consistent with law. Thank you. MR. PETERSON: Thank you, Bill. Okay. I think that's all that have signed in to give comments.

there anybody else that would like to offer a verbal comment?

Welcome, Dave. Dave Wegner from Durango, Colorado, as I recall. Is that right?

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MR. WEGNER: So far.

MR. PETERSON: So far. Nice to have you here.

We failed to introduce a couple of people that you heard their names, but they're key to the scientific understanding of the Adaptive Management Program. One is Dennis Kubly. He's our program manager for the Adaptive Management Program, seated with me here at the table. And Dr. Ted Melis in the back row. Ted, raise your hand quickly. Ted's with the Grand Canyon Monitoring Research Center in Flagstaff. Has been around for probably 20 years I think. And great resources. If you've got questions about the scientific studies and things that they've discovered, please chat with Ted or Dennis.

We'll be here all evening to take questions, interact with you. At any time if you'd like to offer a comment, our court reporter will be here to take that.

And, again, a reminder, pick up a copy of the PowerPoint presentation, our e-mail and street address is on that. And let us know your thoughts. Very good. Thank you.

(Whereupon, a recess was taken for informal discussion.)

(The proceedings concluded at 7:45 p.m.)

	Page 25 —
1	STATE OF ARIZONA )
2	COUNTY OF MARICOPA )
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4	I, DOREEN C. BORGMANN, hereby certify that
5	the foregoing pages numbered from 3 to 24, inclusive,
6	constitute a full, true and accurate record of the
7	proceedings had in the above matter, all done to the
8	best of my skill and ability.
9	DATED this 26th day of January, 2007.
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12	Loreen ("Borgmann
13	DOREEN C. BORGMANN, RMR, CRR Certified Reporter
14	Arizona Certificate No. 50644
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