BOX ELDER COUNTY PLANNING COMMISSION
29 December 1988

Minutes of the meeting of the Box Elder County Planning Commission held December 29, 1988 in the County Commission Chambers. Chairman Richard Kimber conducted.

KIMBER: As per your motion and recommendation last time, this is a work meeting. We will not open the meeting to any public comment. We have invited Mr. Brown to be here since some of the issues relative to his report were in question. Maybe so we can get you on your way, if you would like to come up, Mr. Brown.

BEECHER: Dick, before you get started; if you want this recorded and transcribed in the same manner we did the Minutes of the last meeting, I would like to ask each of you that speaks or addresses an issue to state your name. It makes it a lot easier for her when she's trying to transcribe the comments to know who is speaking. So, if I could get you to do that.

KIMBER: By the way we have the Minutes of the last meeting. Since this is not a regular meeting, what I would like to do is hand those to you and let you have the opportunity to review them, and then we'll pass those at the next meeting. Denny, why don't you review with Mr. Brown some of the conditions that were raised at that meeting and we can get some response from him or some explanations of that report.

BEECHER: I had hoped that Mr. Brown would have got a copy of the Minutes so he could have read those points that were pointed towards him, but he said he did not. It was mostly through Mr. Hansen's testimony that we received the issues relative to the flood control. That's the main issue -- both basins -- the existing basin and the enlargement of the existing basin, and the 9 acre feet proposal; one up in the pit excavation where both were all challenged plus all of the flow characteristics were challenged as not being accurate.

I think Mr. Hansen starts on page 19 of the Minutes for you members that have them. Primarily, I think, if we could have Mr. Brown just tell us where he arrived at his figures that these flow characteristics were generated, and the approval of the Willard Flood District relative to them and their comments on them, his recommendations to that Flood District that they would be adequate to handle the conditions that would be there, where he got his calculations from and how he arrived at them. More or less, defend himself as to his calculations.

BROWN: I would be glad to do that. I might just start out by, since with the exception of a couple here, you are not acquainted with me, particularly. I might just introduce myself for the tape.

I'm Russell Brown. I am presently with Rollins, Brown and Gunnell. We are an engineering firm in Provo. We have been in the engineering business there for some thirty-odd years. During that time, I have done substantial amount of work as far as flood control is concerned. Starting about ten years ago, ten or eleven years ago, we got a contract from FEMA to do flood studies for various communities in the State of Utah. I have seen flood studies where the flooding characteristics, the hydrologic conditions of various extremes are identified; and then from that, the flooding areas mapped. In that period of time, we did flood studies in Logan, in Salt Lake City, and Salt Lake County and all of the communities in Salt Lake County, Murray, Salt Lake; all of the communities in Salt Lake County. We have done studies in Provo, Manti, Richfield, Salina, Cedar City, and St. George, over the last ten years on a continuous basis from FEMA. For FEMA we basically do a procedure they have. We do hydrology, send hydrology out for review. All of the agencies are involved, the SCS, the Forest Service, the Corp of Engineers, and so forth; and so we think that we have a pretty good handle on hydrology in the State of Utah.

In addition to doing these studies for FEMA, from time to time, we have conducted seminars for local entities in the various communities, describing how flood plains are mapped, giving them some background in that. I am certified with FERC to do five year safety studies on hydroplants from a hyrology standpoint. FERC is the Federal Energy Regulatory Commission who controls all of the hydro dams and plants in the nation. They require updates of safety studies and so forth every five years. I'm certified with them to do that work. We've done substantial work in that area for Utah Power and Light on the Ashton Dam up in northern Idaho, over at the Kemmerer Plant on their cooling ponds; Huntington down at the Kaiser mine at Sunnyside. A lot of places where we have done those safety studies in relation to their impact on dams, mapping flood plans, and so forth. Two years ago we did a debris basin; a flood control structure that was reviewed and approved by the Forest Service and the SCS for Orem City when they had the fire on Timp. We finished in November. We did the same thing on the Emigration fire for the Soil Conservation Service. We went in and designed flood control basins on the drainage where it had been burned off to control the debris up in Emigration Canyon.

We have done a lot of work for Salt Lake County Flood Control. We did studies on Millcreek Flood Control, studies on Emigration Canyon and in the Sugarhouse Park detention basin there. We have done detention basins for the Salt Lake Airport Authority and numerous other people. In the last ten or twelve years, we have had four or five people who have worked almost exclusively doing the kind of hydrology that is associated with flood control. So we think that we not only have the technical background, but we think that we have a fair amount of experience in this sort of thing.

Hydrology is not exact by any means. I might just discuss hydrology with you before we get into the details of this because, basically you are dealing with Mother Nature, and so there are no exact numbers as far as hydrology is concerned. If you are going to determine the flow that's expected from a stream, this is the statistical problem. The problem is statistics, you know; the probabilities of certain things occuring. You talk about the hundred year flood; and the hundred year flood is the flow in the stream that would occur, that would have the probability of occuring once in every hundred years. It might occur five years in a row as it did down by Willard not too long ago, a few years ago. But it's the statistical probability. The preferred way of analyzing this, of course, in any statistical problem is to have a lot of data. You analyze the data statistically. In Emigration Canyon and some of the canyons down by Salt Lake, the pioneers started to keep flows; and when we did the work on Emigration Canyon, you have a hundred years of record. So, you can do a statistical degree with a sample that covers a hundred years, and you can get a pretty good handle on what the flow is.

When you get to places where there is no record, it becomes a different problem; a different kind of a problem, and there have been many approaches to this that have been developed. The first one way back when was just what the call the rational formula. It was very simple; just Q equals the rainfall intensity, times the runoff factor times the area, very simple; for a pretty good degree, fairly reliable.

Over the years we have had a lot more sophisticated things develop. For instance, I just brought one. The Geological Survey just a few years ago put this public which is a method for estimating discharges in Utah, and I want to refer to this in a minute. Farmer and Fletcher up at Utah State did two studies in 1971 and 1972 to attempt to define this; and so, USGS has a couple of methods, the SCS has a couple of computer models you can use. The Federal Highways has a system, if you are working for them, they expect to do it. The Corps of Engineers has their method. The EPA has a computer model they call SWIM. Salt Lake County and the Airport Authority likes to use a computer model called ILLUDUS, which is the Illinois Highway Runoff Model, and so, what I am saying is, there are dozens and dozens of ways to approach this. When you approach this in many ways, all of these methods will give you different answers. So there isn't a single answer; and the answer you get is based primarily on the judgement and experience of the people who are doing those. It isn't unusual that you might have two people come to different ways.

In our first studies on this, we made an analysis back in February and July of 1981. We made some analysis and used numerous methods to see which one we probably would best fit. After we did that, and they saw a few floods come down there; and we began to get more familiar with the rainfall, and the flooding characteristics, we also discovered that the assumptions that we made earlier may

not be all that valid. There are some things that you have to take into account. I guess what I am saying is: when you look at numbers in hydrology, you can probably have within a range as many numbers as there was people that were doing it. Because it is based primarily on the judgement of the person who is doing it. There isn't an exact numerical solution to anything that you can just plug in some numbers and grind out. There are methods you can use and follow, and if you want to talk about that a little bit more in a minute.

In computing the hyrology, you also have to have a point in time. In other words, when you come, are you going to compute, and I think this is obvious to everyone, you can compute the flood flow and you have to have a specific point. It's going to be at point A, B, or C, the mouth of the stream or the mouth of the canyon, or somewhere. In the work that we did, the first ones we did in this draft report which we sent around in February of 1981, they were all computed at the highway. After we circulated that, to the various and sundry people, the Forest Service, the Soil Conservation Service, the State Engineer, and everyone who wanted; and that was just a draft document for their comments, we concluded that not only did the method that we used in there was not proper for this watershed, but we also went back and recomputed the flows at the canal, at the Ogden-Brigham canal rather than down below. We took the area out, getting more to the mountain things, so that has some impact on the numbers that you have. They would be obviously different for different places.

The problem, though, that you have really, in here, is when we started in this ten years ago, in 1971, we made the assumption that was common, most of us, that whenever rain fell on something, something would run off. That's a logical thing you would make; and I think, you think, that if it rains on a piece of ground long enough, you would perceive that something would run off the bottom end. It has a slope, you know. Down in Willard, that's not necessarily the case. We discovered that in a couple of storms where I happened to be there when it stormed. Those alleuvial fans, and that's one of the issues that we are involved with here; on those alleuvial fans, the rain that falls on those in general does not run off. The water that runs directly on the ground; and not only the water that originates in the mountain beyond and runs across those fans, the flows are decreased substantially as they cross the fan. In other words, you have a loss in that section that goes across the fans. Well, one of the reasons in this last go around that we moved our point from the canal up to the mouth of the canyon or the head of the fan, is because there is no recognized way that you can compensate for might, for would be a loss in a run off model. All of the computer models make the assumption that in every case, at least some water runs off or no water runs off. But they don't have any provision where you have a loss, where it's going to seep in. To make some logic out of the numbers, you have to move up and compute the number at the head, at the mouth of the canyon, where

you are on rock, and then adjust that flow as you come down across the fans for the losses that are involved for the fact that it is going to seep in. It may or may not seep in depending on how much material is removed.

Currently, we think, that based on some studies that we have done, two particular storms where I was just down in Ogden when it started to rain. Bob North had called the office, and they called up there. I was able to be up on Cook's Canyon and those areas during the entire storm from the beinning to the end. When it started to rain and we heard the rumbles coming up the mountain, I was only in Ogden, and it only took me ten or fifteen minutes to get up there. I was there, based on some rough observations, measuring afterward the slope of the channel, the width that the water was running, and the depth, and making some estimate of the roughness, and these estimates are only rough because the measurements were not done with any high degree of accuracy. We concluded that when you go from the mouth of the canyon down to the canal, that approximately half of the flow currently on that Cook's Canyon alleuvial fan is lost. When you go from the canal down to where the current basin is, another ten percent was probably lost. The flow during those two storms down where the basin now is was only about one-third of what it was up at the mouth of the canyon, up some twenty-five hundred or three thousand feet further up to the top of the fan. This is the thing that makes that fan significant as far as either preserving or replacing that, because you do have a substantial loss in that.

The other interesting thing that was observed during those things: the water when it comes out of the rock at the mouth of the canyon is relatively clean. It immediately picks up a lot of rock and debris which gets up to its bed load, and then deposits that maybe once or twice before it gets to the canal. By the time you get down to the canal, at the current time, most of the bed load or the gross sediment in the water is then deposited. Then you pick up a little bit that was deposited in the channel just above where the basin now currently is. From that point all of the sediment that ended up on the road was eroded below that basin and did not come from up on the hill. It came from down in the fields where it is just fine sand, down in the orchards. I think that's generally the case, and Don can bear that out, that when you have floods in Willard that come across the road, with the exception of the one in 1923. At least the recent ones are not generally big boulders that come running out on the road. It's fine sand and dirt. The coarse stuff is left up on the fans, and then the fine stuff comes down. That's just some background to get into what, we made an analysis of. When we started in to this review of this latest plan, and numerous plans over the years, in the last eight years, in this same general situation. When we started into the last one, which I made the review on which is dated July 27, 1988 which is the current plans that we got. We had some problems with that. They went back, and then

Lew Wangsgard came in and worked on that. But because of this problem of the number being anybody's number, I concluded that the thing that, on behalf of the Flood District, so that everybody would be talking about the same thing, we went back and recomputed the number on the canyon on Cook's Canyon at the low canyon to the south and recomputed the hydrology that's involved in that. Now for that computation, we used HEC 1 model with an SCS subroutine. Now the things that you put into that from the Soil Conservation side and developed by their national engineering people, you put in a curve number. This curve number can go from one to a hundred. The curve number represents the vegetation and so forth on the watershed. I guess a solid concrete watershed with no holes or dips or anything in it, smooth, would probably have a curve number of about 95, or something, because even in that kind of a situation some does not run off. It fills little pockets and so forth. We used a curve number of 80, which we thought was a realistic curve number for that place. Again, there is the matter of what kind of precipitation you use. Because, again, you can use -- and various lengths of storms and distributions of precipitations during the storm. The SCS, in their TR-55 normally uses a 24 hour storm, a rainfall that lasts for 24 hours; and the reason for that is that a 24 hour rainfall is the thing that is commonly measured. When they have the rain gauge down here in Brigham City, they measure it for 24 hours, and they don't necessarily hav a recording gauge that would give you the one hour rainfall or the six hour rainfall, or something.

So the question, then, is which storm? Well, we analyze it fro the one, two, and three hour storm. The reason that we did that is that we thought that this was probably valid. Farmer and Fletcher did this analysis that they published in 1971. It was distribution, precipitation. They analyzed the Davis Watershed, and the data that they used for this publication that they put out was all right here in the mountains right here, in the mountains right along from Ogden up this way. All the ranges and all of the stations. They concluded in theirs, and I might just read you that conclusion that "only a small percentage of the storms that occur on either study area have durations greater than six hours. Storms of a long duration are rarely flood producing events in these areas". Then they quote Croft and Marston who did some other work indicate that the greatest storms had a watershed average much less than six hours, and they ranged from thirty minutes to ten and a half hours. So we didn't work on the 24 hour storm. Although, if you use the SCS computer model, and this complicates it, you can use the 24 hour storm, and then they have a distribution that distributes the rainfall, because obviously it doesn't rain the same intensity for 24 hours.

Farmer and Fletcher developed a precipitation distribution in a one hour storm, two hour storm, or a three hour storm; because even in those storms, even in a cloudburst storm, the rain is not uniform for the whole period. It has peak and go down, and in our

analysis we used Farmer and Fletcher's distribution. And then you have a lag time. In other words, you have to determine the length of the watershed, how long it takes the water, what's called the time of concentration; from a drop that falls on the fartherest plate from the outfit. You have to estimate how long it takes to run from one place across to the other to determine this; and again, we used the SCS methodology that has been developed to do this. You plug this into the computer model; and with a hundred year storm, we ran it for the one, two, and three years. The peak flows that came out of that was on the two year storm. For the hundred year storm, we got 216 CFS for the peak hundred year flood out of Cook's Canyon and 30 for the ones that come out of it. These are the ones that Lew Wangsgard used. We provided that information to him. So you can put that in perspective, maybe, to see whether those numbers are realistic or not, because apparently those are the numbers that are in question.

For instance, FEMA hired back here in 1979, the Ghinger & Associates who are consulting engineers from Colorado to do some flood studies from Brigham City down to Davis County to Salt Lake. They computed for all of the canyons in the hundred year storms. Out of all of the canyons, and let me just read you some of those, because I have got them tabulated through here, and I just went through here. You have to recognize that Willard is a very unique situation because the watershed is very steep, and it's mostly rock; but the Cook's Canyon is only a little over a half a square mile, very small. FEMA didn't do that because in FEMA's rules, unless the watershed is at least an acre, at least a square mile, you can't possibly have a flood off from it. In their rules, it's just not possible to have a flood that would create any kind of a problem off of a watershed that's less than a square mile. So when they came in to do analysis for flood control purposes, they just ignore any watershed that's less than a square mile, and this is why they don't have a FEMA map. Well you do for Willard, but the FEMA map for Willard has Willard Canyon in the flood basin, and it doesn't have anything all the rest of the way down through Box Elder County. Because all of the watersheds are smaller than a mile, and they don't consider that you could have a flood out of it. But, anyway, you go through these. I just went through those, and the biggest flood that you can find in terms of discharge per square mile is one that's called Jump-Off Gulch which is down somewhere near Ogden. The flow on a 2.3 square mile drainage area is 360 CFS. In other words, it's 150 CFS per square mile. Up here we computed on Willard, on Cook Canyon 400 CFS per square mile in round numbers. The biggest they have here is 156. The bulk of theirs, well you get out there to their computations on Box Elder Creek out by Brigham City, right here. They had on 20.1 square miles, 680 CFS, or 33 CFS per square mile. Most of the data in this prepared by Ghinger have runoffs along this front in the neighborhood of 33 - 35 CFS per square mile.

For the ones that we computed in Willard in this Cook Canyon, we have basically 200 - 400 CFS per square mile. We think, apparently, there has been some questions of why our numbers are not higher. We think that our numbers are super conservative. Take this publication, here, prepared by the Geological Survey. You use their method; and for Cook's Canyon, you get 36 CFS, not 200, but 36. using the method that the Geological Survey would tell you to use. The Geological Survey mapped no other region in that.

Willard is very unique, because the mountains are steep, they are very step, and they are all rock. So that is a unique thing that you would expect higher, but basically that's how we arrived at the 260 - 270 feet that we used at the head. I feel comfortable with those numbers, because when you look at all the basic data, the work that was done by others, and the way you arrive at it, those numbers appear to be higher than you would expect anywhere else, or that anybody has derived around except one place, over above Ogden. I don't even know exactly the place they had an astronomical flood back in the 30's somewhere, where they got substantially more than that for a short period of time. I think if you go back in -- it's a very unique situation. So that's basically where we arrived at the mouth of the canyon; that is the number that we gave to Lew Wangsgard who then prepared the Flood Control plan that we have under review.

Now, coupled with that review, coupled with the peak flood, you also have a hydrograph that's produced. These hydrographs, because the storm is of a very short duration, you have to look at two things. A 24 hour storm in terms of volume obviously will give you a much larger volume than a two hour storm, or a high intensity cloudburst. A cloudburst, where one cloud drifts over and dumps its load and goes on gives you an extremely high peak, but not too big of a volume. A 24 hour storm will give you a much, much larger volume. So we did compute; and if I call right, what you get is -- the volume out of Cook's Canyon for the two hour storm that we analyzed is 12 acre feet. Now, if you were to pursue this a little further, you have a storm drain that the district has prepared, that has been installed there, that will carry 69 or 70 second feet away. If you have a peak flow of 216 at the mouth of the canyon coming down, or whatever, you reduce that coming down across the hill which is what Lew Wangsgard did until you get to the basin. Then, you have to have--If you can only pass 70 second feet through the pipe, then obviously, since this peak is a very short term peak, you have to store the rest. You store it and you release it at a later time. You just put it in storage. That's where he arrived at that computation of how big that Willard basin needed to be built. The assumption in this plan is that when you start out with this thing, the first thing you are going to do is expand the basin down below big enough so that when you have a hundred year storm at the top of the canyon, then you decrease it, I think he said, by, as you go across the alleuvial fan, because the alleuvial

fan is still here, you haven't disturbed it, because the first thing you are going to do is expand the basin. Then this storm arrives, and it will be diminished by -- down to maybe a hundred second feet by the time it arrives at the basin. Well, since only 70 second feet will go through the pipe, unless you do something with the existing basin, the other 30 second feet is going to run down the road. But if a storm comes along without Mr. Nielsen doing anything, the 70 second feet will go in the pipe, and the rest will run down the road. That's the way it is right today. If a storm is bigger than 70 second feet, currently the storm is going to -- 70 second feet is going to run down the pipe, and the rest is going to go over the spillway and run down through Woodyatt's driveway and out into the highway; and that's exactly what's going to happen.

Now if you expand that basin to go up to 6.2 acre feet, then having the 70 second feet or the 65 second feet going out of the pipe, 124 CFS can come down from Cook's Canyon and another 30 CFS can come down from the canyon to the side for 154 CFS. Once you have expanded the detention basin to 6.2 acre feet, then the total storm out of those two canyons can be 154 CFS before any runs down the road, because the rest will go in storage. So once you have expanded that basin, you have changed the flood control capacity for the 70 second foot storm to 154 CFS just by expanding the lower basin if you don't do anything else. According to this plan, this is the first thing that Mr. Nielsen says he is going to do. So at that point, you practically double your ability to handle a storm.

The plan also says -- then you get into the problem of whether you -- when you start to take the material out of the alleuvial fan, are you going to get rid of the seepage or not? That's a question that is very difficult to determine. We presume that he will lose maybe all of that seepage. In terms of this plan, he states that to solve that problem, the first thing that he is going to do is dig, according to this excavation plan, not where the flood channels now run, but excavate outside of that flood channel and create another 9.4 acre feet of storage before he starts to dig in the alleuvial fan. Now if that's true and that depends on how he operates that and whether he operates in strict conformance with this plan. In this plan that I am describing, if that's true, then at that point you have 9.4 and 6.2 acre feet of stroage, and you only need probably 18 in the two. So in that case you can take the whole 216 second feet down across through the two basins into the quarry without any spilling over provided; in accordance with his plan, he says he is going to build the second detention basin before you start to interfere with the fan. So at that point in time, if he gets the 9.4 built before he starts to dig in the drainage channel before the water sepps away; at that point in time, he has enough capacity to handle the storm without seepage. You can handle the hundred year storm the way I've computed it. It can be handled without seepage. Then the question of whether you are going to eliminate some of the seepage in the fan or not becomes -- that is not an

issue anymore because he has provided facilities sufficiently to handle that. Again, if you follow this plan.

Now, the problem -- there are some other problems that undoubtedly were raised in here. Once you start to dig back in that, if you dig it 2 to 1, it is obvious that, if a storm comes out of the canyon, that it just isn't going to trickle down over that slope at 2 to 1. It is going to cut a big gash. If you have a slope of 2 to 1 anywhere in that channel, you are going to wash a lot of material down. But the way the grading plan is, in my opinion, that material would all be confined to the excavation and will not get beyond, although it is going to make a scar in that channel. That material will not get down into either one of these basins. It will be deposited before you get to that basin, and the case in point: If you want to look at that, if you have been out to Marshes Point, which is just down immediately south of Willard, there by the Flying J. They made a big excavation back in there a few years ago and cut it level in the alleuvial fan way back flat; and you go up there and look and see that you have a tremendous gash down the 2 to 1 slope, 20 or 30 feet deep and 40 feet wide, and you have a new alleuvial fan built down in the flat place. In that case, when the flood comes down there, the rocks do not run out, even though this is sloped back in, it's just flat. The coarse material is deposited in the flat place up on the hill. The water still comes over and goes out on the road, except some fine stuff down below, and that is the situation you have. Even though you are going to have tremendous erosion up in those channels, and I am not sure that you can stabilize it short of a concrete lining, so you don't have that erosion. That material would not probably cross the canal. It would be confined in his area of operation.

Again, looking at this, I am analyzing a plan. If the plan is not followed strictly, then you may have some other consequences involved in that. If there is a question, what happens to the rain that falls on the excavation? Should you vegetate the excavation or not? Basically you have in this two kinds of problems. You have the water that originates beyond Mr. Nielsen's property and runs across it, and that's the major problem. If you didn't have the canyon beyond there, and the water just fell on, just what rain fell on his hill, you would probably have very little that runs off. Because it just doesn't run off. If he makes the excavation as he said he would and slopes it back into the hill, any water that falls on his property and runs down there, although it may again erode his banks, that water ends up being trapped on his property and that little bit doesn't run off. That's a small percentage of the total water.

The major problem in this is the water that originates beyond his property, and how does he handle it? As I look at this plan, if this plan -- as far as the flood control, and you understand that I want to talk about flood control. If it's followed strictly, and he is required to build it and you have some guarantees that it is

built in accordance with the way you see it, the flood control at almost any stage -- at almost all stages of the game as you go along, would be somewhat better than it is now; irregardless of the magnitude of the numbers. It would be better than it is now. And it may be that you will get a thousand year storm and what he built would not be big enough to hold it; but at least the situation, if this plan is followed, would be as far as flood control would be better than it is now. It is an improvement. In some cases, if you look at it, a substantial improvement.

There is the problem of maintenance that hasn't been thrashed out too well, or what should happen if the plan was abandoned in the middle, and he didn't complete the plan. I haven't really addressed those here, because those are not addressed in his plan particularly. Now that's a long explanation, but now, maybe if you have a question, we can respond, maybe, to those. That's a long ways around to it.

KIMBER: I personally appreciate the explanation, and I think you answered two questions that I had. The primary question: There is concern about removal of some of that alleuvial fan. What would happen if that did occur? With your measurements at the mouth of the canyon and the increase in those basins, I think your answer has been in your professional judgement, it would still enhance what they have at the present time.

BROWN: That's right. It may not handle the biggest storm you will ever have there because, again, you have to look at flood control from a statistical thing. How much protection can -- the only one that really was sure that he had was Noah. When his flood came, he had a boat ready. I suppose you could have one of that magnitude, and so you don't really know. That's what they call PMF. FERC makes you compute the PMF. The only one that's ever been recorded was written down by Noah. When they had a PMF. I guess the point I'm making in that is, you are looking at flooding from a statistical basis. Most people say, well, Salt Lake County for instance says, even on streams like Mill Creek and Emigration and Big and Little Cottonwood Canyon, a 50 year flood is all we can afford to protect against. We can't protect for the hundred year. We can't afford that because it would cost too much money, and so they design for a 50 year flood. In storm drains in towns, they design for a ten because the impact of the ten is that, occasionally, you are going to have water ponding in the street wherein the storm drain don't carry it, and we can't afford to handle water any more than that. It's not worth it. The inconvenience of the ponding, down here in Willard, the situation is different, because if in fact you get a hundred year storm, or one bigger than that, or, it's not a matter of water ponding in the streets, it's not that kind of a problem.

Usually when you work on these kinds of things, you work out the 10 and the 50, and then you do a little risk analysis, and say, "well, what would it cost if this is not big enough? What is the damage?" And try to make some assessment of that; in urban areas, that's always an extensive part of it. The Corps of Engineers and everyone says "What's the consequences of not protecting for the

flood?" And then offset that against the cost of providing the protection. So you always have that in storm drains and this sort of thing. You never provide the ultimate protection. No on can afford that. But you need to get it at a reasonable level. In this situation, we said that as far as Willard is concerned, once you get up on those hills and look down below, you ought to be looking at least a hundred year.

BUNDERSON: Your numbers are based on a hundred year storm:

BROWN: The anlysis of this. Now the storm drains that are in there were not obviously designed for the hundred year storm. The decision for that was made back by the flood control board a long time ago. We have got so much money, let's build something with the money that we can lay our hands on; and at least we will have some level of protection. So the current thing is probably about at the 25 or 30 year storm. That's just an economic decision. That's all the money they had to build with, so they built to the capacity that they had the money, that they could lay their hands on and said "this is better than having nothing even though it doesn't provide the ultimate". At least for most of the storms that's happened down there. Well, we have had two or three since that system was installed. They have all passed unnoticed. The system has worked fine. All the systems we have put in there, and the storms have pretty well passed unnoticed in the last four or five years where you would have had the highway blocked off. Undoubtedly, there will come at some point in time, a storm that won't pass unnoticed.

KIMBER: Gentlemen, do you have any questions? My questions have been asnwered relative to this. Denny, do you have any?

BEECHER: Well, just a couple that's been bothering me. There was a comment from Mr. Hansen that said, well, Mr. Kimber asked him, "What you are saying is what they have right there now is less adequate than what would be there, but it's all inadequate." And Mr. Hansen answered, "That's right, I think in my talking with Russ and the Soil people, I believe that was something that was constructed to get something constructed. It was something that was expedited to get some control. The same with the ponds just to the south. They got these to control the water to stop all the flooding that was coming on to the highway. I guess they have done some. I don't know if they have had storms of the magnitude that we used to have or we have had, but they did do that, but they haven't even put the band-aid on it yet." Now, I think what bothered me is that what he was telling us is that what you have constructed to date is inadequate already.

BROWN: Well if you base it on the hundred year storm, and I think I just explained that. They are based on the capacity of about the 40 or 50 year frequency which, for instance in Salt Lake County, they would say "that's all we can afford." They are the major flood system building in Utah today. They would say "We can't afford any

more than that" and that's the decision that was made down there. It is obvious that the system that you have there could not handle the hundred year flood. It could probably handle the fifty, depending upon how you arrive at that, so that statement -- This plan; and again I emphasize that if it is constructed as outlined here, it will raise that somewhat. It's going to kick that up to probably twice the level that it is now, at least in terms of the level of protection. Although, again, you still may have storms that load it up, that's always possible, because you are -- when you look at Mother Nature, we have the driest --

KIMBER: Russ, why don't you elaborate on that just a little bit. What is the worst scenario of what could happen there, after Mr. Nielsen starts digging in there? What's the worst thing that could happen? Let's say the hundred year storm happens next summer, and he's got it partially excavated, started, according to the plan?

BROWN: Well, if you have got the 6.2 basin, there, constructed, the 6.2 basin, which you said was the first thing he was going to do. If you have got that constructed, and you haven't gone in there, and the hundred year flood comes, it will just pass.

KIMBER: Pass where? Take it right to where it's going to end.

BROWN: Let me start and say what it is. The hundred year storm, the way I've computed it, and you probably have some objection to that number; but if you take the 216 second feet at the top, at the head of the alleuvial fan; and it comes out of the mouth of the canyon, that peak comes down, according to my analysis of that, by the time you get down to the basin, down to the 6.2 basin, that flood will have been reduced by seepage to around maybe 140 or 150. That's what it will be. In terms of the analysis we have there, 70 second feet of that, when that peak arrives, 70 second feet of that will go down right past Woodyatt's house, over to 650 South, down the 48 inch storm drain, and down and into Willard Bay. The rest of that will go in storage, and it will just store, and that 70 second feet will continue to run down to Willard Bay until the basin is empty again. The basin will end up being empty. And so it will just pass through the system, and that hundred year storm will, according to the plan, if it is built that way, will just pass through the system and go on down.

KIMBER: Would you be concerned if he got digging in there and found a layer of clay? About where he figures on leaving it? Would that concern you with anything?

BROWN I don't understand your question.

KIMBER: Well, the question is, we are going to disturb that alleuvial fan, now aren't we; if he goes according to that plan? So that alleuvial fan isn't going to be there any more. So, that's a retention that you are basing some of these calculations on. That retention of seepage is not going to be a factor any more. Would that set up a situation where that water couldn't be retained in that particular pond? I am talking about the one immediately,

right up at the base of the canyon, now, the one that he is going, above the canal. Is that going to create problems with the lateral flow coming through that heavy rock material coming out down there below, under the canal, possibly?

BROWN: Well, it's possible that that could be, depending on if you trapped it in that basin and force it to all seep or evaporate. It's possible that some of that would seep out and come down. In other words, you might get a little bit of water. I guess the thing you have to look at is, now it seeps in there; and if there is a layer of clay in there,what seeps in there now ought to run out somewhere. It doesn't run out now; but, let's take the other scenario. Let's say that you go up and require him to line the basin so that it does not seep. So you artificially do that. In that case, so that it doesn't seep out, you can't just trap it and wait for it to evaporate. You have to have a low level outlet so that you can drain it out. Even the basin that we have down below has a low level outlet. In the low level outlet, even though you trap it and store it, in a matter of a day, it is gone, or less. It would be, even -- with the one up there lined, provided you have a low level outlet that will let the water run out, that's imperative that you have one. In the period of a day, the water will be gone, and so it won't have time to seep very far; and even if you don't line it, that's constructed up above, and we don't have very many details of how that would be constructed. You just have to have a low level outlet that lets a small amount drain out. Even though you store it, there are some other kinds of problems; you don't want to trap them and have them stand full until you get mosquitoes and things. You just have to have them drain dry. There's the problems of what happens if kids get in them, and all kinds of things. My concept of a detention basin is, even though you trap and store the water in there, it is going to be in that basin for a period of hours and not days. You only detain it until the peak is past, for hours and not days. So it has very little time to seep away in any case, one way or the other.

KIMBER: These plans, they are really not clear as to how that is going to work.

BROWN: No there isn't. You just have an area up in there, there are no details of that basin up there.

KIMBER: Do you think, in your professional opinion, that those plans are adequate to protect those citizens down below, if it is followed according to those plans? In detail? As detailed as they are which I have to recognize that they could probably be a little more detailed.

BROWN: If you are going to construct something, I would think that you would want more detail.

KIMBER: He made the statement, that as far as you know, there never has been any lateral water daylighting below that canal, in any of these storms. Did you say that?

BROWN: But then I've been there. I haven't seen any springs that occur. That's not saying that that doesn't happen. I have been there for two or three, immediately before and after. I have never observed anything, but I don't have any first hand knowledge of whether that does or does not occur.

KIMBER: Are you concerned about that, at all, the water daylighting below there, in a hundred year storm? Or even let's say a fifty year? Does that bother you, to the extent that you would make plans?

BROWN: Not unless you are going to trap it and store it. The storm comes and goes in six hours. A hundred year storm has come and gone in six or eight hours. It's come and gone. So, you don't have time for it to seep very, or anywhere.

KIMBER: So you think lining that with concrete, or some way of lining that to stop that would be a waste of money?]

BROWN: No, I didn't say that.

KIMBER: What did you say? Is it necessary? In your opinion?

BROWN: That's a mixed bag. Let me tell you about that. We did one down in Orem. There were drains down at the University Mal l a lot of years ago. That was a real concern about whether you are going to have that or not. To prevent seepage coming up and coming up in peoples basements down below, we lined it so it couldn't. We lined the thing so that it couldn't drain in there. All the farmers down below who had field drains and things that came out, that they took water off their land, their drains dried up. Later, they agitated to the city and they came and took the lining out, so it would seep. So that's a mixed bag. Water is going to seep. But if you stop it from seeping, they have the other side. Are you eliminating the recharge in the act and drying up somebody's well? That's a mixed bag. So, it's hard to know in terms of that what you ought to require them to do. Right now whatever seeps in there seeps away, and it's hard to know.

KIMBER: But the way this is designed, it's designed to drain out.

BROWN: Well, there isn't any detail of what's going to happen to the water. There isn't any detail if you would line it. There isn't any detail that you could tell you. I think that it would be imperative that you have a low level outlet because it's not wise to have a pond up there for a number of reasons, for very long.

KIMBER: Thank you.

BEECHER: Russ, maybe to help me, in anticipating what questions I may ultimately get; what other details are needed in the plan? In your opinion? Now you have mentioned one. The basin has to have a low level outlet, in your opinion. What other things are needed in that plan? What are the details that are needed to make it functional, to make it work?

BROWN: I guess that this is something that you have a real concern with. Let me address this in this fashion. This is a stage plan. Obviously when you do this, it's going to be there for 20 or 30 or 40 years. The first stage plan doesn't anticipate, the first stage plan only anticipates making, enlarging the lower basin. It doesn't involve digging in the flood channel itself, in there. So, they are going to create a basin up there by the virtue of the excavation as they make that excavation. I think that in terms of the plans that you have, you probably have adequate plans until you get to the canal. Once you get to the canal, the question is, are you going to approve this whole thing or are you going to approve it in stages? So when should you be required to develop the detailed plans for that basin up above? Should you do that prior to the approval of stage one, or should you wait to do that prior to the approval of stage two?

You see, the problem with this, as I see this, if you look at the amount of material up in there, and you look at -- of course, I don't know what the market is. This might be a 50 year project, that they are going to work in that area. Obviously, you can't develop detailed plans for what you are going to do 50 years from now. It is very difficult to do, but anything that is going to be done in the next four or five years, I think that you ought to have detailed plans. The problem with detailed plans 20 or 30 years down the road is that everything changes, and they become worthless anyway.

In terms of more plans, it depends on where you are going to cut the line between stage one and stage two. You may want detailed plans of that upper basin in stage one, or you might want to defer that to stage two. Surely, before that's constructed, you need to have some detailed plans of how that's going to be. Particularly in terms of low level outlets.

End of side one - Beginning of side two:

In other words, we don't want any water stored up there on the mountain, with the possibility of water popping up in somebody's basement down below, and mosquitoes and other things you mentioned.

THOMPSON: Well, I think you do not want any long term storage anywhere in the detention facility. There are too many problems associated with it. They need to be built so that they come and go, particularly from the hazard standpoint and all of the things that are associated with it.

KIMBER: Any other questions? We really appreciate your time, Mr. Brown. We apologize for taking you away from that ball game. Gentlemen, what's your pleasure? How do you want to proceed on this? I had made a few notes, and I am sure each of you have. We have Mr. Bunderson here. There were some legal questions that we wanted some advice on.

GROVER: Why don't we start and go just like we did to start with.

BUNDERSON: Are these going down chronologically through the conditions you have imposed?

BEECHER: I guess that's what you meant, wasn't it? I hope we don't have to read them all again.

BUNDERSON: Maybe if you just ask questions, if you have a question concerning No. 1, if you don't move on to 2, etc. It might be the easiest way. If you have some general questions at the outset, maybe we ought to discuss those right now, before we get into any detailed questions about 1 or 2 or 3 or 7 or 8.

BEECHER: Basically No. 1 just says it shall not exceed Utah Air Conservation's rules and regulations.

BUNDERSON: No. 1, as I read it is intended to, at least the way I think I read it; I guess we ought to make sure we are all reading it the same, is intended to be an ongoing thing. As those regulations change, they must be made right.

BEECHER: However they are at the time, what they impose on them, they must meet. No. 2 was that we have a written approval from them. Now we have one presently in our files that has been received. But, we have received nothing else. We have received testimony to the fact that there was another meeting held and that there was another regulation drawn up, but we have never received it to date. Anyway, I haven't; I don't know whether anybody else has.

BUNDERSON: That should be simple enough. There are two groups there from which you require written approval of the project.

BEECHER: When those two have been received, we have nothing that was completed. That must be in writing. The reclamation plan is one that was challenged, and however you want to proceed with that. It must be submitted and you must approve it in writing by a majority of the Planning Commission.

BUNDERSON: What do you have up to this point? Do you have anything submitted at all?

BEECHER: We have a plan submitted by Harper Land Reclamation .

BUNDERSON: I think that's more than a legal question. It is simply an engineering question or a question for you gentlemen to decide as to whether you feel that plan is adequate, sufficient for your needs.

BEECHER: Well, what are you going to do to solve it? Do you feel what you have is adequate, or do you want more? I think that's the issue, you need to determine whether you want more, or do you want to have someone; hire someone yourselves to review it? Can you comment on it, and is it a soils expert? Or whether you want to take it as it is.

BUNDERSON: Let me inject one comment there so all of you understand this. The State Law specifically provides that this Planning Commission has authority to hire such experts as you need to do your job. That isn't precisely the way it's worded, but there, in effect what it says. The only restriction on that is up to the extent of dollars appropriated by the County Commission. In this particular case, if you feel that you need some expert advice, perhaps such as you have goten from Russ Brown, here, from another

expert; that is something you ought to ask the County Commission to appropriate money for and do it.

KIMBER: There was another question on my part on that, that I think I would personally like to take that particular route on this particular question. I have a question about the qualifications of the company. They may be reputable. I have no information as to their background or qualifications for that. I personally would like to have further technical information about that particular.

BUNDERSON: I suppose another possibility would be to request of Mr. Nielsen a more detailed plan or a different plan; tell him what your concerns are. Perhaps you would be satisfied with that without requiring or needing another expert to look at it, or perhaps you would want to get a more detailed plan from him and then have an expert look at it. You may be in a position where the plan you have isn't good enough or sufficient enough, and I don't mean that in a qualitive sense. There isn't enough there for an expert to really tell you, beyong what you can see for yourselves. I throw those all out as ideas, concepts for you to think about.

BEECHER: Now this is your written plan with attached diagrams, drawings, and so forth. This is basically THE documents that were submitted to you. Jon questioned those tonight as to whether they were adequate. So however you feel, what you want more on that?

BUNDERSON: No. 4 deals with what Mr. Brown was telling you about?

BEECHER: It is the written plan with attached diagrams, drawings, showing what he is going to do in detail, how he is going to approach the basin, the excavation and things like that, the side slopes. --

KIMBER: This has been going on so many years. I don't recall, is it where the two phases that we were talking about in these plans? Were we talking about the two phases, here? Three phases?

BUNDERSON: And I think Mr. Brown raised a good point there in response to my question. How much detail do you require for Stage 1? If you have ten things that are going to be completed, are you going to require firm plans for the first three, prior to the completion of stage 1, or for the first six, prior to the completion of stage 1 or for the first two. You need to make that decisiion. It is food for thought because this thing could go on for fifty years. A detailed plan required right now for the tenth thing he is going to do may not make sense if that's fifty years down the road.

BEECHER: Jon, how appropriate would it be now? Do we have a right to change these, modify these stipulations by stating that before he proceeds to phase 2, he must resubmit a set of plans.

BUNDERSON: I think so, particularly, because as to many of these things, there has been a submittal and approval by you required, and I think the fact that your approval is required presupposes that there may need to be some changes or additions. These are intended

to be broad outlines, I think. Like when we say for example, for No. 3, we want a Reclamation Plan. Well, until you see what's proposed and then think about it, you really don't know how much detail you need in the reclamation plan, same thing with the plan in the No. 4. I think that technically what you are doing is approving--you are reviewing a plan he has submitted and requiring numerous other things to be in that plan or deleted as you deem appropriate prior to approval of the plan. That isn't necessarily changing much detail, this particular condition. It's requiring certain things within the plan as a condition of your approval, if you follow what I mean.

KIMBER: Are there any other questions relative to that one? Let's go ahead with No. 5.

BEECHER: No. 5 was the written permission from the Department of Transportation, so forth and etc.

BUNDERSON: Have you received that, then?

KIMBER: Yes.

BUNDERSON: Then I think that's a simple matter. We can't really put a whole lot of restrictions or requirements on how he is going to get across there. It's just that whatever he is proposing should be approved by the Utah Department of Transportation. I think that's all you are asking.

BEECHER: We have also asked for some safety precautions, and the question of his sandtraps. They were not adequately described on his plans. We ought to have some more details on those sandtraps.

BUNDERSON: You do have as to how he is going to build them and so forth. You do have a couple of things, restrictions to access, safety requirements, the weight limits, and so forth? That you felt were appropriate?

BEECHER: No. 6 is the Access Road. That basically was shown on your plan. You have a stipulation in here that you will agree to the length of the pavement; and you were told last time we met that the Air Quality people now are requiring that you pave the entire length. We don't know that except through testimony of those that were here. Whether you want to now amend that one, and what you have done before to say that you want it asphalted the entire length, or whether you are going to let him do it with the dust palative.

BUNDERSON: In your condition here, you have retained the right to designate that portion of the road that needs an asphalt surface.

KIMBER: I believe that the EPA has made that stipulation. We would have an obligation to make an amendment to this, or at least specify that it would be the full length of the road.

BREITENBEKER: Would we really have to do that? In other words, if they specify that's what's got to be done, they have already taken care of that, haven't they?

KIMBER: It may have already been taken care of, but I think it would be well for this committee, this Commission to change that particular requirement to comply. That's all I'm going to say.

BUNDERSON: I don't know if you have actually approved anything yet. But, like I say, the condition as we have written it, gives you the authority to require asphalt of the entire surface. It left that open. So now you have had somebody tell you in their opinion, and someone who should know; in their opinion they are going to require the entire surface to be asphalted. I don't see any legal problem with your simply tagging along with that, more or less. Saying that's how we feel, too.

GROVER: Was there a copy of that last Air Quality thing you asked for?

THOMPSON: Well, that will be a condition of the permit. Those things that's in there, that we are talking about right now, won't they, Richard? That will be a condition. So, if he has to have that permit, he has got to comply with that condition. That's why Richard says we don't need to mess with this, because we have already asked him to provide that and submit to that.

GROVER: Now, let's back up a little bit. Who asked for that last Air Quality study?

THOMPSON: That's an ongoing thing. Those requirements are going to change, and we can impose that thing to be an ongoing thing, because I don't want to be going against Utah Air Quality, though. So it just stands to reason that we want that to be an ongoing thing. Next year they may change the requirements again.

NIELSEN: There might be some changes, and if you want to put that stipulation that whatever Air Quality comes up with, the conditions, then I think it is fine as long as we can move in either direction. I just need to know. OK?

THOMPSON: Just as long as Air Quality is being consistent throughout the whole State. I don't think they have got any business of imposing anything stronger or less to Darrell Nielsen than anybody else.

NIELSEN: That's the reason I'm saying they could be moved both directions.

THOMPSON: OK, I understand that. That's why I made the comment.

BEECHER: I still have a question on this Air Quality thing, then. Are we agreeing that the initial permit that we have from Air Quality is void?

BREITENBEKER: I don't see how we can do that.

BEECHER: I don't either. Because we haven't received anything from Air Quality that they have voided their permit.

BREITENBEKER: My understanding is that we requested he get this permit from Air Quality. We have that. In other words, whatever amendments may come this month or next year or whenever, I don't think is an issue with us.

BEECHER: That's what I wanted to clear up is that we have a permit from Air Quality. If they come out with amendments today, tomorrow, ten years from now, he has to comply to those amendments as they come out. But we have a permit today.

BUNDERSON: Well, I think goes back to your Condition No. 1, doesn't it?

BEECHER: Yes. That's the only thing -- this Air Quality thing keeps coming up. But we do have a permit that has been issued with the conditions that we will enforce, that he has to live by. Any amendments that come up, they would be forthcoming.

BUNDERSON: Is one of those conditions that the entire road be asphalted?

BEECHER: Not yet. The road wasn't even mentioned in the original plan.

KIMBER: As Denny mentioned in testimony at the last meeting, this was -- it was indicated that this was a part of a new stipulation. We have not seen that.

GROVER: That's why I was asking, who called for the last go-around? This body didn't.

BEECHER: Well, we heard testimony that Willard City did. Willard City asked for the hearing.

GROVER: Well, is Willard City going to tell us what we are going to do, then?

BEECHER: That's my question.

GROVER: That's just exactly what I would like to know. If Willard City gets mad at us, are we going to back up and say "hey, wait a minute." We give him the OK to go ahead on this, but now they are mad at us, have we got to back up and start over? We can't do that.

THOMPSON: We can let Willard City tell us what to do if we don't comply with Utah Air Quality, then they are going to tell us to comply with it.

BUNDERSON: I don't think it matters who went down and requested a hearing or complained to Utah Air Quality. The thing is that your conditions, as written, say that Darrell Nielsen is supposed to comply with whatever Air Quality orders him to do at whatever time they order him to do it. The fact that the access road is a separate condition may just be an accident of the way we drafted this. It appears, as it turns out that maybe that the type of surface on the access road is really a sub-issue of the entire dust emission question. That's the way it looks like it's developed.

BEECHER: I think the reason it was a separate issue is because of its location. The access road and its location were critical, and there were things that needed to be done separately from everything else because of its location.

BREITENBEKER: Well I think we were concerned at the time, that whether the Air Quality people or whether they did not require the paved road, we felt it was necessary that he did pave it. That's why we put it in there, or at least the section that we designated.

BUNDERSON: We reserve the right to require more than Air Quality did.

BREITENBEKER: So in other words, we felt it was imperative to pave it whether they did or not, just as an extra safety precaution. They tell us now that they are going to do that anyway, but I think that's why we had it as two separate issues.

BUNDERSON: Under Condition No. 6, then you just need to decide whether you are going to require the entire road to be asphalted or what portions of it. You have reserved the right to designate it. Just do that separately.

BEECHER: Item 7 is the written comment from the Flood District. If you will remember, that letter was signed by Mr. Braegger; a very short statement that they do not think that anything that is done will conflict with the Flood District, or words to that effect.

BUNDERSON: I don't believe I have seen that one. Denny and I could probably take a look at it if you would like me to look it over.

KIMBER: I would like you to look at that.

BEECHER: Let me just read it, it's not very long. "On September 1, 1988, a resolution was made by the Willard City/Box Elder County Flood District that the issues concerning flood control could be resolved if the Box Elder County Planning Commission granted a permit to Darrell Nielsen. The motion was made by Rod Mund and seconded by Jack Gordon. The voting was affirmative and unanimous."

BUNDERSON: So in effect, it sounds like they don't have any; their written comment is to the effect, "we are satisfied with what he is doing". That's another way to put it.

BEECHER: The flood control could be resolved.

BUNDERSON: They have chosen to word it the way they want to, but I think it fits within your requirement here.

BEECHER: Item 8 is Applicant will produce and submit to the Planning Commission the Ogden River Water Users Association issue.

BUNDERSON: Well, there are two sentences to paragraph 8. I think the first one, the applicant has no problem with. "Applicant will produce and submit to the Planning Commission from Water Users to cross their canal at specified locations." I think that's been taken care of. You have received that? You are satisfied with that? At locations where you want them to be? All right. The next thing, basically a Hold Harmless Agreement for Box Elder County from the Water Users Association is something that the applicant has objected to. And I don't know if you have had a chance to review Mr. Thorne's letter on that point, or not. Now when Mr. Thorne called me about that, the first thing I suggested to him, and I will throw it out to you to think about, is if it is impossible to get that, and I believe it is. I think Water Users has simply decided that "we are not going to sign anything like that." I have talked to their attorney, and that's what he told me in fact, and I think somewhere I have seen a letter confirming that from the Water Users.

THOMPSON: Yes, we have a letter from them, signed by Ralph _____.?

BUNDERSON: Yes, I believe that's the case. My first thought was, well, you should consider then in lieu of that requiring some sort of insurance coverage from Mr. Nielsen. Now one would assume he is going to have insurance in connection with his operations. I don't think it would be out of line to inquire into that possibility since he wants a change in the permit. This is one area that he's requesting there be a change, and you are not imposing a change on him. I think that's one area to discuss with him, if whether or not you could, -- he could name Box Elder County, its agents and employees as named insured under an insurance policy. I don't think that would be a particularly onerous requirement for you to require that there be particular entities or persons as named insureds under a policy, and to set or at least discuss with Mr. Nielsen limits on that policy, the amounts. Now I have no idea of his personal reaction to that. When I mentioned that to Mr. Thorne, he said, "ah, I'm just going to send over a request to delete the entire provision," so I think that their position at least currently is they would like to see that entire condition deleted. Mr. Thorne points out a couple of things in his letter, cites a couple of cases. He does cite those cases accurately, so far as they go.

He throws in something about the public clammor, if you read that. I am not sure necessarily, what that has to do with this particular condition. It is sort of gratuitious, but, what he says is true, on this particular point. Now, also, I think the thrust of what he is saying in there is that this particular requirement that Mr. Nielsen go out and obtain some sort of performance from a totally unrelated third part, which is in effect what we are asking. He is saying that sort of requirement to him is an unreasonable requirement that a court may strike down. I have to tell you I don't agree with that a hundred percent, but he's got a point. Because, that requirement is quite a bit different than many of the other requirements that you are imposing. Because of that factor of requiring him to go out and get a third party to do something. It's a third party over whom he has no control, over whom you have no control. The third party is free to do whatever it wants, that is the Water Users.

THOMPSON: Well, so is Utah Air Quality Control a third party, too.

BUNDERSON: Well, yah, but all you are doing there is referring to a State Agency that has rules and regulations. You have a standard throughout the State.

THOMPSON: Right. But just to say it's a third party doesn't necessarily hold water because -- but I know what you are trying to say.

BUNDERSON: It's an independent party. It's not a governmental agency to which you are looking for some regulations. You would assume a governmental agency that imposes regulations would do that uniformly. There is a difference between the two. So, I do have to tell you, he has raised an issue there that is I think, a valid issue.

That doesn't mean that he would win on it or that you would prevail on it, if it went to court. Because you do have fairly broad discretion, but it's something to consider. It's good food for thought, is a good way to put it, at least as to what he raises.

THOMPSON: Before you leave that, could I ask you a question? Do you think it is necessary?

BUNDERSON: Well, I looked into that a little bit more, based on his inquiry. It was originally the thought of the Board, or myself, or some combination, and I don't remember where this particular requirement came from. I think it was sort of a combination of us getting together and talking about that. The main concern was to avoid liability for Box Elder County. Box Elder County didn't want to be put in a position, by simply issuing this permit, to be sued. Theoretically, something could happen. One of Nielsen's -- it has conjured up a couple of things. Nielsen could do something up there that would plug the canal that would in turn flood people down below, or where a machine rolls down the hill and crushes a house.

THOMPSON: Or he can plug up the canal, and you have got people down there with crops burning up. You got all kinds of problems. OK?

BUNDERSON: Now the question is, does Box Elder County have any exposure or liability for that type of event? Merely because they have issued a permit?

I can tell you a case. Loveland vs. Orem City, which was decided in late 1987. Probably after we did these, in November or December of 1987. In that case, a little kid had drowned in a cement canal down in Orem. The City was sued along with everybody else; and that's the typical thing, of course, in a lawsuit, you sue everybody. You deal the cards out and see which ones the Judge makes the guy hang on to, so to speak. In that case, the City was sued on a very similar basis. They had issued a subdivision permit; there were three different plats in the subdivision. In one plat or area of this subdivision, they had required fencing of this canal. They hadn't required it as to two others, so there were a lot of factual issues involved.

The general concept in this entire area is one of soverign immunity. It stems from the old, old concept that you can't sue the King. Well, we still have that. You can't sue soverign. You can't sue the State, unless the State tells you in its own statutes that you can sue the State. The State has waived immunity. That's the technical legal term, in several areas. They have not waived immunity for things that are strictly and totally governmental functions, and then as to some governmental functions, they have gone ahead and waived immunity anyway. The analysis in this Loveland vs. Orem City case was that Orem City wasn't responsible under those particular facts because No. 1, this was indeed a strictly governmental function, the issuing of the permit; that type of a thing is a governmental function. Therefore, the State, the City; and when I say the State, by the way, I include all political subdivisions. We all fall under that. It wasn't liable because, the

only contact they had with it was issuing the permit. That was deemed to be a governmental function. Secondly, there is one exception in there that is burried down in one of the statutes, that specifically does not waive immunity for issuance of, among other things permits, types of permits. So, at least the way the current law stands, and the Supreme Court has tinkered with this statute much more than it has many other statutes, and they have imposed their own interpretation on this statute more than they have many others.

But at least the way it sits right now after Loveland vs. Orem City, the chances of someone prevailing in a lawsuit against the County in this type of situation are thin. But it could happen. If someone got injured severely, it's the type of thing that they would take back up possibly to the Supreme Court. I won't tell you who gave me this quote. It didn't come from me, I'm quoting someone else, but I talked to an attorney who is an expert in this area. He said "well, the Supreme Court is a pretty zany bunch of people. They have a lot of fun. They might change that next week. You and I know that." and I said "I do". Now that's not to be facetious about it, but that could happen.

THOMPSON: So what you are saying is: "Yes, we could get sued."

BUNDERSON: Theoretically, it is possible. Getting sued, and the other side, winning, are two different things, also. Yah, you could get sued. No question about that.

THOMPSON: And we could lose?

BUNDERSON: Possibly, under the current law, probably not.

THOMPSON: But the probability is mighty thin?

BUNDERSON: The chance of them prevailing, the other side, the injured party prevailing in a lawsuit is thin. So I would say that the probabilities are that the County would win that suit. If that helps. It's a long winded explanation, I know. I saw that as one issue I thought you were going to ask me some detailed questions about.

THOMPSON: The only other question I would ask under those circumstances is, what about negligence? Could it have been said that the County was negligent in issuing a permit? Knowing that there could be problems, and allowing someone to run an operation?

BUNDERSON: The statuatory exception I read you is, this governmental immunity statute works sort of backwards. The way the statute reads is that a person can sue a governmental entity for negligence of one of its agencies or one of its entities or one of its servants, except for, among other things, negligence involving the issuance of a permit, if you follow that. So, it looks like if all you are talking about is issuing a permit, and I think that's all we are dealing with here. The analysis I gave.

KIMBER: Gentlemen, I think that's one of the things that we would need to think about before our next meeting; in that we would delete that particular statement from that or pursue the possibility of some insurance. I guess my own personal feeling after listening to Mr. Bunderson is that maybe we consider deleting

that. So would that be your decision?

THOMPSON: I would second that if you want to make the motion.

KIMBER: Well, we are not taking any action in this meeting. This is a work session.

BUNDERSON: Any other questions on that one?

BEECHER: No. 9 is the adjacent property owners issue.

BUNDERSON: And I understand that there was a question raised over the definition of "adjacent". I suppose that what you need to do is decide whether you mean "contiguous property" or "property within the radius of a circle, if you drew from the center of his property", who you want to do it. You can define it any way you want to and change the word if you want to. If there is a question over the definition of it, you simply need to clarify it. If what we meant was contiguous property, then maybe we need to word it that way.

THOMPSON: Well, why can't we just insert that word, "contiguous", that's whay we mean?

BUNDERSON: If that's what you mean, is that your intent?

THOMPSON: That's what I mean.

BUNDERSON: Whatever the rest of the Commission feels. You are creating your own condition here, so you can define it any way you want to.

KIMBER: I think the issue raised, and it's strictly the definition of "adjacent' was all that we were concerned with. Maybe we do mean something different. "Contiguous" would probably be the more appropriate term.

BUNDERSON: Rather than take action on that, you can think about that and vote on it later. OK. Is there anything else on that one? I believe that was the question raised to protect you from any damages. I don't know if the plan has been produced yet. Of course, there is that issue, too. It's to be reviewed by you and approved, so it's subject to your approval.

BEECHER: No. 10 is the written approval from the State Engineer on all proposed detention basins.

BUNDERSON: That may be what Mr. Nielsen mentioned to me as I walked in the door. He mentioned something about he would be glad to sign the deeds once everything is all ready to go. What I would suggest there, what you need to see is the form of what they are going to agree on. It doesn't need to be signed, yet; but, the Flood District and Mr. Nielsen have to reach an agreement. I would say, submit it to you so you can look at the form of the agreement, make sure that it is all right, and then you can say "all right, when everything else is done, and you have got your permit issued, we'll want to see that signed." But there is no sense in requiring an actual signature prior to that.

THOMPSON: I would think that would be in the interest of the County. To insist that that be turned over to the Flood Committee. I mean what happens next year after you have got that basin all made.

and you do have a 30 year flood, it fills up with boulders and all this stuff coming down. Who is going to clean it out? Who is responsible?

BUNDERSON: That gets to the issue of maintenance. Perhaps this was your way of getting to the issue of maintenance.

THOMPSON: That's my way of getting at it. I don't know about these other guys. But I think that's a good way of staying out of the maintenance program and letting the Flood Control take care of that and maintain it, see that is adequate.

BUNDERSON: But it's kind of hard to determine whether you approve it, approve of it, until you see the written document that is proposed.

No. 12. Applicant has the responsibility of arranging for and obtaining written comment from various agencies. If that's been done, it's been done. If it hasn't you'll await it, I guess. That's simple. Blasting -- It simply is prohibited.

No. 14 -- Applicant shall arrange for the preparation of a qualified estimate, of cost of construction of flood control structures. Have you seen anything like that?

BEECHER: We do have one for what was proposed. I believe it has got to be totally changed, because of some of the issues that have come about.

BUNDERSON: I think that's again, subject to your approval. In fact we went into quite a bit of detail. You may require further details and/or revise the cost estimates in your sole descretion and so on. That's important because I think that ties in with the bond you require, or the escrow account you require to finish those up.

BEECHER: What would be your suggestion on an escrow? Once we arrive at the figure, what would be the next? Just have an escrow agreement drawn up?

BUNDERSON: It seems to me the simplest thing to do would be to put the money in an interest bearing account. To the extent that you don't need to use it, it goes back to Mr. Nielsen. That's the way we do it with subdividers.

BEECHER: Similar to subdivision, and as he has completed, we release --

BUNDERSON: For example, if its' $250,000.00 to -- if you have to go in and do it, and I think that's important, too. If you have to go in, you get the material, and its' not provided by Mr. Nielsen --

BEECHER: That was one of the comments before; that it wouldn't cost Mr. Nielsen that much because he was doing it himself, but if we have to go and do it --

BUNDERSON: The focus is, what would it cost Box Elder County to go and do what hasn't been finished? Say that starts out at $250,000.00, just to pick a totally unknown figure out of the air, and that's broken into say increments of five - fifty thousand dollar projects, and he does the first project, and there's no reason for you to hold on to that $50,000.00. You approve it and release that $50,000.00. That's done very typically with subdivisions.

THOMPSON: Couldn't a bond be worked, Jon?

BUNDERSON: That's possible, too. Normally we prefer to use an escrow because the money's there, and we dont' have to fight a bonding company. One of the problems with a bond is that you have to draw all these requirements up. A bond is usually there to pay damages if he doesn't do what he is supposed to. What you want is the money to go ahead and finish it promptly if he doesn't do what he is supposed to do. There's a difference. With subdivision, we require an escrow account for improvements, for the sidewalks, and so forth. We release money for them periodically as those things are done. I don't know if we have ever had to use the escrow money, Denny, have we? To finish sidewalks?

BEECHER: We have used it on one or two occasions to finish the roads.

BUNDERSON: I think Tremonton City had the occasion to use the money in an escrow account on a subdivision. Normally I think you would want the money there. You could work out a way that it would draw interest. You don't want the interest. That's Mr. Nielsen's money that you are just tying up for a period of time until he does what he is supposed to.

Number 15. Is that where we are? Quite a while ago, in looking through my file today, I noticed that Mr. Nielsen prepared and submitted to the Planning Commission an agreement whereby he would hold Box Elder County harmless; and we, Denny and I, went over that and redrafted it, and I think sent it back to his attorney. I am not sure of the current status of that, whether it has been signed or not.

BEECHER: It has never been signed.

BUNDERSON: Again, I think the document is there as we felt it in terms of being appropriate, in form, and there is no sense in actually signing it until just before the permit is issued; but certainly prior to its issuance. It needs to be signed. Now, in terms of the issue we raised a while ago regarding insurance. We don't have an insurance requirement in here, and that's something you might want to reconsider a little bit, especially if you are going to think somehow about insurance on the other point we were talking about. You may want to tie that in with this one, too. Because the way it is drafted, maybe we just didn't think about it at the time, and that's maybe my fault for not bringing it up--the insurance issue. The way this is drafted, it doesn't require insurance or a bond or anything like that. It simply relys on Mr. Nielsen's personal assets, and this also is an area where a bond might be appropriate. Some sort of bonding. Because a bond is much like insurance. So I would suggest you consider that possibility.

Noise Levels -- The next condition deals with noise levels. Denny, have we received anything on that?

BEECHER: We have received a letter that he has to comply with the State, and they do come up and inspect it and announce times when he is complying with that. That's all we have, is that it is being done and he will comply.

BUNDERSON: Is that in compliance with our ordinance?

BEECHER: Well, this is -- EMSHAW is the acronym for it. The mining industry, and you have to comply to their regulations, and their regulations are probably more stringent than ours.

BUNDERSON: OK, so this may be something quite similar to the very first condition. You are sort of referring him to an existing State regulatory agency, saying "comply".

Number 17, I think was pretty specific. That has already been ironed out, hashed out. It deals with times, operation times.

Number 18, The Planning Commission will review the issuance of the permit -- on each anniversary of the issuance. I think that's pretty well self explanatory, too. And again that sort of might be expanded to tie in with this staged set up that Mr. Brown was talking about. What you are proposing here is to review on the anniversary date the conditions. You may want to add to that whatever you come up with in terms of if you are going to require a detention basin prior to completion of the first stage, for example. In addition to annual review, you will review that before you will allow him to go into the second state.

BREITENBEKER: You mean we have got to review this every year?

BUNDERSON: No. 19 is sort of an enforcement provision. No. 20 is sort of a definition, saying that something is subject to approval. I made a note as I went through this. It's always good to do something and then set it aside for a while and come back and you get a little different perspective of it. As I was reviewing it today, I made this note to myself. We need some sort of general clause saying that the various plans which he is supposed to submit must be complied with. When you look at this, we require a plan to do this, a plan to do that, a reforestation plan, and this. I am not sure we actually say in here, although I am sure everyone including Mr. Nielsen, has assumed all along that if there is a reforestation plan, not only does he submit the plans, but does what is approved and what is said will be done in the plans. Perhaps we covered that by saying as to each plan, we have got to approve it. Maybe one of the conditions of approval can be that the plan itself have a self enforcing requirement; that this plan will be done by a certain time. I noted that as I went through it. We ought to perhaps, have a general clause in there or at least in terms of approving each plan, each plan should be self executing.

BREITENBEKER: Isn't that one of the reasons why we have put in there the stipulation that we are going to review it every year? If things were not being complied by, that then we would not renew the permit?

BUNDERSON: Yes, that's one of the reasons we put that in there. I just noticed that we don't actually say anywhere: "We require this plan and that the plan will be followed."

KIMBER: That's true, and I think Jon's point is well taken. That may well become a part of No. 20. I think it could be worked into No. 20.

BUNDERSON: Yes, I think it could. That was my answer to it after I read through it the second time; that I think we can work that into No. 20, but you need to be sure and do that. I don't think anyone has assumed anything different than the plans will have to be enforced and done as proposed. We talked about liability insurance. Those are the things I noticed as I went through it. I don't know if you have any other questions. I will be glad to answer them.

KIMBER: There were a few items I had a question on. Denny, did you have any other?

BUNDERSON: Denny is sort of your staff person as far as the County is concerned. Denny and I have covered several of these things as they hve come up. We will continue to do that. If you need some assistance at another meeting, just let me know or give me your ideas after the meeting, and I will try to put them into a form like I did before, and then get that back to you. Whatever you would prefer.

KIMBER: I guess at this point, if we are not taking any action, only suggestions. As a suggestion, unless the Commission says otherwise, I would like to have you address that No. 20, with the issues that we just alked about. Do you have any objections to that, Darrell?

NIELSEN: I would like to mention one thing to you guys. What about a letter of credit from the bank?

BUNDERSON: We would have to look at that in terms of whether that's acceptable vs. an escrow. If you have a form letter of credit you would propose using, why don't you get it to Denny, if that's agreeable to the Commission, we could take a look at that.

BREITENBEKER: I can understand what Darrell's saying. Being a businessman, which never seems to have enough money, I don't know of any businessman that ever does have enough money. But I can see that this could create a financial hardship. If he had to take, let's say a hundred thousand, you know, drop your figure down and set that aside, as an unworkable and unusable asset. Borrow it and pay, let's say 12 percent interest on it, and get six percent return for it sitting there. So I don't know, I have -- I think we should protect it, but I also don't feel like we should create an undue hardship on anyone, as far as finances.

BUNDERSON: Well, perhaps we could ask Mr. Nielsen if he has got an arrangement with a particular bank and has used a form letter of credit in the past. Just submit that to you for review. With all the other things you are going to.

THOMPSON: That's why a bond could possibly be easier to deal with.

BREITENBEKER: Bonds are getting too hard to get, Jon.

THOMPSON: You can get them, though. They save you that escrow business. These letters of credit, from what I have had experience with them, they merely just state from the bank that, "yah, we like Mr. Nielsen, and we'll extend him two hundred thousand dollars credit on demand", and they're not easy to get either. They used to be easy, but not anymore. The problem is, how do we know that you haven't alredy

used that credit? You can use that any time along the line, and all of a sudden you think you have got two hundred thousand dollars letter of credit that you can go and demand from the bank, and all of a sudden, the bank loan officer says "Sorry, he's already used a hundred and ninety-nine thousand of it. We can just give you a thousand left." You see, that could very easily happen.

BUNDERSON: That's why the place to start is seeing the form of the proposed letter.

THOMPSON: I see, OK, that's different.

BREITENBEKER: My question, at this point of discussion, is if after all of the things that we have talked about tonight, if we need to or if Darrell, within his own mind, now knows that he has got to do to help facilitate a decision on this request. In other words, what we have always talked about before is, "Hey, I need to know what I need to do", is always what Darrell said, "so that I could comply". My question is after this work session tonight, do you now, in fact, know? Or do you need that pinpointed down.

NIELSEN: It will only take about five minutes for you guys to pinpoint it down exactly what you want. As far as I am concerned, I would like it in writing so I can go back to the drawing board and get back to work. Then I know what I've got to meet. Then it's not guess work. I think it's fair.

BREITENBEKER: That's why I brought up the issue. In other words, I don't want to come back to our next meeting and go through this same thing of not knowing and not complying because I haven't known, or so on and so forth. I would like, personally, from my standpoint, get it spelled out so that we can take action and either say "Yay or Nay", and do what we need to do and get on with our lives. I am getting tired of this.

THOMPSON: DeVon, in answering your question, it seems that since Richard has said that we are not going to make any decisions tonight, we really can't -- I've got questions about half of these here questions, that I want to talk about.

BREITENBEKER: Well, let's talk. That's what we are here for.

THOMPSON: OK, but if we can't come to a concensus and vote on them, then how can he -- you see, that's the thing right there.

BREITENBEKER: He's sitting right there listening to what's going on.

THOMPSON: Well, we can talk all we want, but until we come down and say, OK, this is a formal motion and seconded, then he knows he has got to comply with them, and we can't do that tonight, can we? I'm just asking. That's why I don't know how to answer your question.

BREITENBEKR: Well, I don't know exactly how to answer it either, but we could go around this same circle for another six months.

THOMPSON: No, what I mean is -- let's not leave ourselves in haste with some problems, here.

BREITENBEKER: Well, that's why we had Jon come in tonight; to try and alleviate those problems.

THOMPSON: Do you want to spend another hour, Richard? I'll stay here.

KIMBER: If we do, I'm going to have to take a recess.

THOMPSON: OK, you see that, that's the only hesitation I have.

BREITENBEKER: I guess, my reasoning for bringing up the question is, I realize we can't act on anything tonight, but I want us to at least know within our own minds, you say you have questions. I have questions, too, but everyone of them I have got down here as to what I need to have those questions answered.

THOMPSON: OK, but maybe all these guys won't agree with that, you see, so you can't really impose anything on Darrell until it has been --

BREITENBEKER: Yes, but if we sit and hash it out, we can pretty well come to one concensus.

KIMBER: We can talk about it.

THOMPSON: I can tell you a few of them, that I got here. Do you want to hear?

BREITENBEKER: It's just like, for example, we talked about No. 8 on this thing about whether we needed insurance to cross the canal. After we got through discussing this, you talked about making a motion which he said you couldn't. And I sat over here and I shook my head, and Steve sat over there and he shook his head. Now I don't know that there is any question in my mind, unless somebody's going to change their mind as to what we have decided on No. 8. No motion has been made. But I think we have resolved it, I guess is what I am saying; not legally, but within our own minds. We have resolved that issue.

BUNDERSON: DeVon, have you resolved what the limits on the insurance should be? That issue should probably be thought of, too. I'm not sure what limits the County currently maintains on operations like this. Perhaps the required limits should be consistent with what the County retains.

THOMPSON: Darrell's probably already got some insurance, right? He wouldn't dare operate without. All he would have to do is submit a certificate of insurance from your insurance company; and it's probably a million bucks right now, isn't it?

NIELSEN: Maybe it's two million, too; but that doesn't say that I am going to put up two million, or whatever. I think you people should determine. But you know what? Most people say 300,000.00 - 500,000.00 is adequate. So --

THOMPSON: Nobody ever sues for 500,000.00 any more, Darrell; if it's a penney, it's a million, three million, it don't matter. So let's just forget about that, as far as I'm concerned, you are looking at a million bucks.

KIMBER: I think DeVon's point is well taken. We need to resolve some of these things so that you, Darrell, can get on with it. We can discuss it among ourselves.

THOMPSON: I recommend a million dollars worth of liability. That's what I recommend to run an operation like that.

KIMBER: As part of No. 8?

BUNDERSON: The only question I have, Mr. Chairman, is that you had advertised this as a working session without allowing comment; and there has been some comment allowed, which I think is appropriate, because it hasn't been argumentative type of things, informational more than anything else. I would have a question about your actually voting on something, having advertised it that way.

END OF TAPE -- BEGINNING OF NEW TAPE

THOMPSON: They are the exception. Most of these people I'm dealing with are asking for a million bucks.

NIELSEN: OK, now let me ask one other thing. How much did you put on the last permits that you issued? How much insurance die you put on W. R. White? When you issued that permit?

BUNDERSON: You may be getting into argumentative, at this point.

KIMBER: I think that point is well taken on that.

THOMPSON: Well, the point is, I think you are right. I think that motion would pass, that we would require some insurance. The amount isn't set. Keep going. Are you taking notes, Darrell?

BUNDERSON: When is your next regular meeting?

BEECHER: The third Thursday of January. It's three weeks. January 19.

KIMBER: We may want to call another special meeting to do some of these things.

BREITENBEKER: I want to try and resolve this. In other words, OK, one question that I have, for example on No. 3, on the reclaiming for the reclamation plan. If we need an expert's opinion, let's get on with it and let's get one. Let's decide that right now, among ourselves. Let's discuss it a little to the fact, if in fact we do want to do that. Who do we want to get? What qualifications, where do we get him from? Where do we find a so-called expert? That can tell us this sort of thing; and if in fact we are going to do it, then let's try and formulate some kind of plan and get it done and not wait until three weeks from now at our next meeting, and then say "hey, we had better make a motion that we find somebody to do it.

BUNDERSON: DeVon and Jon, let me just suggest, just interject one thing there, that same statute that provides that the County Planning Commission has authority to hire experts also goes on to require State agencies which have available expertise to provide that or make it available to you. Now to what extent that is really possible, I don't know; but it is something to look at. I don't know if the County Agent has any of that sort of expertise; that's someone who is right here.

BEECHER: Would the Department of Transportation have someone?

BUNDERSON: I think any State agency, I don't know.

KIMBER: The Bureau of Reclmation, USU, i think there are a number of resources that we could go to.

BEECHER: There would be some experts over at Utah State, that the Extension Agent could get in contact with.

KIMBER: I think the point has been made. What type of flora is going to be placed back in there? Is there going to be some topsoil or plant the seed on rock. Again the question I had from the report we had, what are the qualifications of that individual? Of that Company? I don't know. There is nothing there that specifies the qualifications of that type of expert.

NIELSEN: Didn't you get a letter saying the work that they had done? Different places in the State and the people that they had done work for?

KIMBER: I don't recall it, but that doesn't say we haven't received it.

NIELSEN: I know I have submitted that.

THOMPSON: Again, he is going back through his papers. We have been given some information that seed won't work up there. At the last meeting, there was an engineer in here that gave testimony that that was a reseeding program, that wasn't reclamation, and that it wouldn't work. Yet, we can look not too far away from there, and you can see where it was done, and it did work.

BREITENBEKER: Well, the question I had raised about that, is, Jon, within my own self, too. Also, what qualifications does a civil engineer have to tell me about reseeding programs. I am not being facetious with Keith. I know his qualifications, but I don't know that he has those qualifications. In other words, we are talking about experts. I don't know that he knows as much about it as the people that we are getting the plans from which I don't know anything about. But here again, what you are saying that you go to this pit of Fife's; and whatever they are doing, and I don't know what they did other than they said they reseeded it. But it seems to be working.

KIMBER: Well they reseeded it but they didn't put in some trees, or --

THOMPSON: My question is, do we need more than just grass? What do you consider reclamation? I thought that was a point. What's reclamation? I don't know.

BEECHER: I have got Harper's deal here. I haven't found yet where he -- I remember something to the effect that they have done some reseeding for the Utah Department of Transportation, or something. It seems to me I have seen something about that, that they have worked for the State on reseeding projects on freeways and that sort of thing.

NIELSEN: I can furnish that to you.

THOMPSON: Denny will find it. OK, Jon, I would like to know what your opinion would be if Mr. Nielsen comes screaming down that oiled road that he's making. It's on about an eight percent grade, or better, or eleven, and the brakes go out of that thing, and he misses the trap, and goes a crashing right on through there and plows into somebody?

BUNDERSON: I don't know that it would be negligence. I assume that there are trucks in gravel pits, and in construction areas that are exceeding the grades that are normally allowed on the Interstates,

for example, which I think are six percent. I don't think that the grade that's allowed on a State highway, whatever that may be, but I don't think that's necessarily binding.

THOMPSON: No, but what you are doing is, you are giving him a permit to operate in an area where he has to take chances, in order for him to operate.

BUNDERSON: If somebody brought that suit in to me, and nobody had any money but the County, that's certainly a place I would look for somebody to sue. I don't know whether you would prevail on it.

THOMPSON: OK, next question. What happens if he exceeds those particles permillion of dust, up there, and he's finally brought that to his attention, and he promptly complies with it? But in the meantime, you have got some people down there that die from asthma and can prove that it was -- OK, now what's going to happen?

BUNDERSON: I think that's a little more attenuated, a little thinner than, at least it is to me, in terms of there being a negligence analysis there. Coming down the eight percent grade. But still I think that the legal analysis is the same. You have issued a permit to allow certain things. First the anlysis is whether or not what you did was negligent. It may nor may not be, but then the question is whether the soverign immunity applies. Because, I tell you. I can give you what the law is right now, and what it is in a particular case; but what makes horse races and what makes lawsuits are the facts in each particular case. In a horse race, it's two horses running against another, how they do, who their jockeys are, what the mud conditions are, whether it rained three days ago, you know. It's the same thing with lawsuits. Every lawsuit has different facts.

BREITENBEKER: Or two attorneys running against each other.

BUNDERSON: Law is not an exact science. It's an art, much more so than a science. It's much less of a science than engineering, I can tell you that. You have heard somebody say today that engineering isn't even an exact science, or at least hydrology isn't. That's the best I can give you. Certainly somebody would look to the County to sue in a situation like that, especially your truck, hypothetically. I would if I were on the other side. I may decide that the County has soverign immunity and not pursue it. But if I felt I had a good faith argument to change what I felt may be the existing law and I could sign some pleadings of good faith. I wouldn't be unethical in doing it and I could argue that before a judge, and chances may be five percent of winning or ten percent. But the more appealing the facts are, the better your case.

BEECHER: This access road has been compared to Eleventh South and the accidents on Eleventh South. The Department of Transportation constructed Eleventh South. Have they been sued? For construction of that highway at those grades and creating that hazardous intersection?

BUNDERSON: Not by me. DOT gets sued all the time. They lose a few, but normally it's something more like, what you normally perceive as more common negligence, such as not putting up warning signs. That's

one of the most common ones. Sorry I can't give you black or white answers, but there isn't one.

BREITENBEKER: The thing about the legal question is, we are already involved in the legal question. In other words, we are to the stage right now that we are in legal litigation, when you get right down to it, anyway I believe this, within myself, Jon. Because right now I think we are to an impasse of the fact that before the permit even gets operable, we deny the permit to Mr. Nielsen. I think probably we are going to get hit with a lawsuit, of why we did. If we do in fact, give him the permit, I think immediately, here again this is all hypothetical what I am talking about, but what you are talking about is hypothetical, too. Willard City is going to sue us and Darrell Nielsen to prevent him from opening the pit if we do, in fact, give him the go ahead. So I think as far as the legal litigation, I think we are already involved with it clear up to our eyebrows, even though we may not realize it.

BUNDERSON: Let me suggest this thought to you, maybe just approach it from this way. My advice to this board would be to be most concerned about the reasonableness of the conditions you have imposed, rather than potential lawsuits that might arise from hypothetical situations, things that may occur out there. Your focus should be on that more, though, than the things we have been talking about, just a minute ago. It doesn't mean they shouldn't be considered and thought about. I am just saying the emphasis should be on imposing reasonable conditions. Your legal exposure is greater in that area in terms of imposing reasonable conditions, or imposing unreasonable conditions in granting this permit, than in the hypotheticals we were talking about.

THOMPSON: Your answers, though, may help me to formulate these conditions.

BUNDERSON: That's fine, I want you to ask the questions, that's what I'm here for, but I'm just telling you that maybe that helps put it in perspective a little better.

KIMBER: Denny, on the reclamation item, could you contact the Extension Service or someone for some information about it, maybe just have them review that particular document. That may be totally reasonable, what's there.

BEECHER: Yes, all right, I will get hold of them.

KIMBER: I have a little question in my own mind. It's only grass, but other types of flora and fauna may enter into the reclamation. Any other?

THOMPSON: Yes, Item No. 4. I feel that there needs to be a little more detail in the plans that's been submitted concerning that first detention pond up there, immediately out of the mouth of the canyon. I mean in the first --

BEECHER: After the first phase is taken out? That 9.4 acre feet?

THOMPSON: Yes, I would like to see some more detail involving that, and maybe a little more specific in his procedure.

BEECHER: You know, the question was brought out last time by Mr. Hansen that the Air Quality was going to require that the crusher remain in that area, you remember that discussion; and that he would have to transport when he got into phase 2. He would not be able to build that, according to Mr. Hansen's ideas. He would not be able to build that. Now we don't know that as a fact other than Mr. Hansen's statement. And I am not saying Mr. Hansen didn't tell us the truth, but that was just his statement. We don't have that as a fact from Air Quality. But if it were the condition, we have got a different set of problems, here, if he is not allowed to move the crusher. I can't believe that because I have never seen an operator work that way yet. They move the crusher to the hill.

THOMPSON: I called Air Quality. Air Quality didn't say that he couldn't move his crusher. Mr. Hansen misquoted him. Folktech, or whatever his name is, says he will be able to move that crusher almost clear through that pit.

BEECHER: So, if we were misquoted on that one, how many others were we misquoted on? We better just forget that other permit until we get a copy of it.

KIMBER: Well, I think we will proceed on what we have.

Gravel / ~~THOMPSON~~: I called that man that signed the letter for the Willard Bay Park. And he says "I done something that I shouldn't do when I wrote that letter." He says "I wrote it on State stationery, which was wrong, because those are my opinions and not the State's." So I called Dee Hansen, and Dee Hansen says that is true and he will be reprimanded for it. So I called the Forestry Service man, and the Forestry Service man lives in Ogden. And he said "I done wrong when I give my letter." He said "That was my opinion, not the State opinion". Now how many other letters have we got like that? The Soil Conservation man -- I talked to him, and he says he will stand on his letter.

BEECHER: The Geological Survey?

THOMPSON: I didn't talk to him either. But both those others -- they said "We done something we shouldn't ought to do". So anyway --

BREITENBEKER: What you are referring to, Jon, when you are talking about this No. 4 on the written plan on the slopes, you are talking about that in conjunction with No. 10 as far as detention basin construction is concerned?

THOMPSON: Exactly, what I am concerned with.

BREITENBEKER: Like we are talking about, with that low level outlet and so forth.

THOMPSON: Exactly, that's the thing that I am concerned about right there. I think he has got a valid point there. In the plan, there's absolutely nothing there that shows you how he is going to deal with it.

BREITENBEKER: At least, we should have that probably with at least with the first stage. In other words, the second stage, and so on, would have to follow, of course. Here again, as Mr. Brown said,

there isn't any sense in talking about what's going to happen down the road a couple of years. I would concur that we probably should have something in there which would at least explain exactly what was going to be done in the first phase.

BREITENBEKER: Didn't we also understand that that first stage will be all done before he digs that first detention basin up there?

THOMPSON: Right, but that's only what Darrell tells us, and that's why I made mention that we should probably have that in writing; how that's supposed to take place, so that his predecessors might not understand that, and you could have a problem there, OK? And so I think that should be spelled out at the same time. And I don't think we are adding a big burden to Darrell. I don't think we are asking that much. It's not that difficult to provide that, and tie that right down.

BREITENBEKER: Before he can start stage 2, he's got to have a debris basin dug.

THOMPSON: I would say for flood control, that would be mandatory. Then the other thing that I would talk about is that insurance business. I would require some insurance, liability insurance, in conjunction with No. 8. No. 9, I would define that as contiguous property with adjacent. I would do that right now without any hesitation.

BUNDERSON: When I suggested the word "contiguous", I hope what that really means is next to.

THOMPSON: No. 10, applicant shall obtain written approval from the Utah State Engineer of all proposed detention basins on the premises and submit said approval to Box Elder Planning Commission. I would say that they should be required immediately.

BEECHER: That can't be given until you have a plan for that upper one.

THOMPSON: That's why we need the plan.

BEECHER: That's why you don't have anything for the State Engineer to review.

THOMPSON: That's right, and that's why I tied them two together with No. 10. You are right. I don't think that's too difficult to comply with.

KIMBER: I'm confused then. Really all you are talking about is phase 1.

THOMPSON: That's right, phase 1. That should be immediately, up front.

BEECHER: Phase 1 includes the expansion of the existing basin, plus at the end of a construction, building one up in the upper.

THOMPSON: Right. And then you are going to be -- this is subject to renewal at the end of each year, so that gives us a chance to deal that part of the construction that's going on up there in the future. It would necessitate the same type of plan for future development, then. Each operation, I think. Same consideration, I think.

KIMBER: No. 11, we just need to have that document prepared.

THOMPSON: Right. I don't have a problem with 12, or 13.

BEECHER: Let's go back to 12, Jon. How are you going to treat this thing? Applicant shall have the responsibility for arranging and getting these letters. Now once you have the letters, what are you going to do with them?

THOMPSON: Review them; and we have got the letters, and I have reviewed them. And as far as I am concerned, Steve has already answered two of them right there. They are personal opinions, and as far as the deer herd is concerned, this causing and creating a problem for the deer. I don't have anything against deer, I like them. But, denying him an operation up there because it is going to interfere with that deer herd is the same thing as saying you got to take out all those orchards up along there, too. They are the same thing. I don't understand where he is coming from. I mean that's a pretty broad statement to say "I am against this", you know. I feel bad for the deer, if there are a few of them there that's wintering there. But Don syas they can come down to his place. They are down there anyway. You can argue that any way you want. He has his opinion. He is entitled to it, but my opinion is that you can't stop progress. If we had done that, we would have denied all these farms along this Wasatch Front, and we would have restricted all that to maintain our deer herds, and that don't seem reasonable.

KIMBER: But we didn't make this contingent upon yay or nay. All we asked was for the comments so this Commission could review those.

BEECHER: We have never really discussed those letters and how you felt about them, that was my point, and what you were going to do with them.

THOMPSON: My attitude is they did respond, and they gave us an opinion. I don't particularly agree on what they are saying. The reason I was wanting those letters is, in the event that they might have come up with a good valid reason that we should consider. I have not seen a good valid reason, so I am saying, thanks for your letter. But it doesn't influence my decision. Moving on to 14 -- I don't think that estimate is large enough for reclamation, and I question where we got those figures from. Maybe it is large enough, if someone can show me --

BEECHER: We have never really reviewed it, and picked it apart.

THOMPSON: That's probably why I am confused about it.

BEECHER: Right now, we don't know that it's even accurate because what we are saying is phase 1 is not complete because he has got to show us some plans as how to build that upper one, and do all that other work, too.

THOMPSON: I think that's something there that we need to -- that I have a question about, yet; I'm not satisfied that we have received or we are doing ourselves justice there.

BEECHER: I think on 14, just say that we have to have a new -- that we do not accept the one that's presently submitted, and do it, to comply with everything else that we would be asking for.

THOMPSON: I think that's reasonable.

THOMPSON: Anybody else got any comments on this? How come you are all looking at me? 15 -- This needs to be a signed agreement, there. That's pretty easy to deal with. He said he will comply with the noise. So I don't have a problem with that. If he doesn't comply with it, he will be shut down. The only problem with that is that I am concerned about how soon he can continue that operation without getting it shut down and cause health problems before it does get shut down, if he doesn't comply.

And the next problem I got with that is, I don't know how Darrell is going to know that he is complying. I mean, how can you look up there and see, well, is he complying? And the next problem I got with that is, who is responsible if the flipping wind comes up there and starts blowing stuff all over the country because he hasn't got some grass to hold that stuff down. Who is responsible for that, and what can he do about it once he opens up a hole? I am referring to those pictures that got brought here.

BEECHER: Are you talking about dust or noise?

THOMPSON: I'm talking about dust, excuse me if I am on the wrong one. Excuse me, I am sorry, I was talking about dust.

BEECHER: I don't know how you take pictures of nose.

THOMPSON: Anyway, that would be one of my concerns right there.

BREITENBEKER: Well that's a concern, not only of that, but every spring when the farmers are working their fields, you run into exactly that same problem. I have seen times out to my home that you couldn't see across the road. I could take pictures and tell my brother-in-law that he can't farm any more because he is creating my problem. Those things will exist in any thing. I am sure when he harrows his orchards, it blows. But here again, I guess that's why we have State agencies that are supposed to regulate that type of thing. I don't know that that's our responsibility to try and regulate it. All we are trying to tell is that he has to conform to the State regulations. Now they are to police that; we are not, I don't think anyway, Jon. And as long as he conforms to their regulations, that takes us off the hook, so to speak. Now maybe I am right and maybe I am wrong; but every industry has a problem that way. That's why we have all these Federal and State agencies and everything else to try and correct this. Here again, as long as he conforms to that, what else could we do?

THOMPSON: We can impose some restrictions on that.

BREITENBEKER: Stricter than anyone else has to.

THOMPSON: Yes, we can, but I don't want to do that. I am not suggesting that, but we can do that.

KIMBER: I think we have.

THOMPSON: Yes, we have, no question about that. But those picture that was passed around here. That wasn't an operation. That was a windstorm that was creating it. I am just curious as to whether that's something that we should deal with. That's an act of God. Nobody can predict that far ahead; but one thing about it, if you never dug a hole up there, it's not going to be blowing.

GROVER: You would still have the dust.

THOMPSON: Well, I don't know about that, Steve, I don't think so. If there is grass and stuff growing in there, that --

GROVER: According to those pictures they took last year, there was nothing going on up there when they was taking them. That dust was still blowing.

BEECHER: The area had been disturbed.

GROVER: Yah, the area had been disturbed, and that's what I am concerned about.

BEECHER: So you have an exposed surface, that is new from what it was before.

GROVER: Yah, but I can't buy that, that it's going to be dust free down there, because that's the wrong country to be dust free.

BEECHER: We are not saying that. We are saying that when you disturb an area, you have changed its conditions and it's going to create some problems when the wind blows.

THOMPSON: Well, that's some of my concerns, and I think that's all of them. Except I do think that's a good idea that Jon brought up here that we should put in there that the plans should be followed. No. 20. Maybe that should be rewritten to add that in there.

BUNDERSON: I'll do that.

THOMPSON: And with the exception of that, these are the only concerns, the only things that I'm concerned about at this point. If they are complied with, I am ready to move on.

KIMBER: Are there any questions that anyone needs answered? At this point? On any of the items? That Jon can help us with? I think we have given suggestions. We have given Denny a little assignment.

BREITENBEKER: One question I have. About No. 6, which is the access road. We stipulated, as I recall, that we were only going to require the first how many feet - 1500 feet - 1200 feet, whatever. Now it's been talked about because of the permit which we haven't seen which we don't know what is in there, that it is supposed to go -- we are still maintaining our original request, unless the Air Quality people change this, it is the concensus of everybody else; I just want to clarify the issue of what we are talking about.

KIMBER: If there are no other questions, it has been a great work session, gentlemen. Darrell?

NIELSEN: I am not quite clear with what Jon is saying -- on he wants to tie the retention basin up there across the canal. And also tie in the upper basin and get a letter from the State? Is that what you said?

THOMPSON: No, that's not what I'm asking there at all. All I am concerned about is that the plans are not adequate, showing how that detention, when it gets dug out, excavated, how it is going to be drained?

NIELSEN: The first one or the second one?

THOMPSON: Both of them. The one above the canal. Both of them. But the first one would have to be done before a permit could be given. The second one would have to -- The first operation would have to be reviewed at the end of the year. I think there was a point brought up here that there was no sense in making a bunch of plans too far in advance because they won't be any good. So I think that's a valid point, but I am not sure exactly how --

NIELSEN: I think that plan shows that the water, if it gets, -- my equipment is going to be the only equipment in there, that the water would gradually flow over and run down into it. I have a letter --

THOMPSON: According to the plans, Darrell, it shows a negative slope. It is sloping back toward the mountain. So how is that going--

NIELSEN: It's only a small slope. It's only a very light slope. And that's what the plans say. And then when, if it gets a little more water than that, it will flow over the road and down into the detention basin. And I think the plans show that.

THOMPSON: Except it will impound water.

NIELSEN: Well, it will just impound it for just a short time, and it's not -- you can't put any -- there's no sense putting a culvert in there.

THOMPSON: Well, I don't know how they engineer that, or I just question --

NIELSEN: That's the reason they engineered it that way so that it would do that, and the flood control engineer has already approved what we are talking about there.

BEECHER: No, no he said tonight he didn't. The upper - the 9.4 acre feet, he doesn't know about it. The plan does not show it will hold any water.

NIELSEN: Well, it's not supposed to. It will just hold water just for a time --

BEECHER: It won't hold nothing. The way the plan is.

NIELSEN: Well, doesn't it slope back?

BEECHER: No it comes from 4606.5 to 4605.5 to 4605.0. It's all sloping to the canal. So it's not going to hold any water.

NIELSEN: Well, then I guess we shouldn't have to worry about it then.

BEECHER: The basin that's shown there isn't designed. It just shows that there is one that could be designed in there. But it doesn't show us how.

NIELSEN: OK, maybe the thing we better ask this Commission, do you think we need it there? Maybe we don't need it there.

THOMPSON: I think that that negative slope to the east --

BEECHER: It doesn't show a negative -- that's not true, Jon, it's a positive slope to the east.

THOMPSON: Is it?

BEECHER: Yes. It goes from 4605.0 at the canal to 4605.5 back at the east edge of that basin.

THOMPSON: Mr. Brown is the one, he is the one that brought that up. I can just envision a pond up there, little kids drowning.

NIELSEN: There won't be no pond.

THOMPSON: I know, but let me finish. I mean that this is the thing I wanted some clarification on. I just didn't feel good about water ponding.

NIELSEN: If it's not sloping back --

BEECHER: What they are saying is, that they have proposed to build on there, so that means they have got to do some excavation in some different ways. But they are not showing us any cross sections, and that's what Mr. Hansen showed -- brought out, they have not prepared and submitted any plans as to how they are going to build this detention basin or retnetion basin, whichever they call it, a retention. All he wants to do is retain the material for a little while, but there's a problem.

THOMPSON: Yes, I think there should be a cross section there.

BEECHER: That's a part of phase 1, and we -- right now the way it's shown it isn't a basin.

THOMPSON: We need some clarification of actually what's going in. That's what Mr. Hansen brought to our attention, too, that it wasn't clear. And Mr. Brown, he agreed with that situation, too, and I'm just picking up on that, Darrell, is what I'm picking up on. Now if you want further detail as to what's going on in my mind, talk to Mr. Brown about that.

NIELSEN: I'll talk to him. Denny, do you see anything wrong with what's right there? Do you think we need anything?

BEECHER: Well, there's no retention basin. There is a circle drawn on the plan, but it won't retain anything.

NIELSEN: And maybe it's not supposed to for the time being.

BEECHER: It says that it will be built as a retention basin. Now to be able to retain something, it has got to be a depression.

NIELSEN: OK, then I will just have them slope it back and we'll do it that way.

BEECHER: And then what we are saying, too, is because it is a retention basin, we would want the State Engineer to approve it because they have to approve all of those.

NIELSEN: No, the State doesn't, not unless you built a structure like they built down there.

BEECHER: See, we have the concern of the piping condition, and whether we would retain any water there, and don't let a low level outlet. You see, if we hold back three feet of water in that, just as hypothetical, if we hold back three feet deep of water in there, as a retention to let the sediment settle out, how long is that water going

to stay in that basin three feet deep until it evaporates or seeps out? Is it going to create a piping situation and go down and under the canal and pipe out and surface soemwhere below, maybe wash out the canal. Or are we going to put a 15 inch low level outlet pipe in it at the low elevation so that it will drain out gradually? In a controlled situation? That's what we have got to have your engineer tell us, what he is going to be doing.

NIELSEN: OK, I'll get that. Then the upper one, we are not concerned about right now.

BEECHER: Well, this is what I call the upper one.

NIELSEN: I'm talking about the one that's way back in, it would be in phase 2, phase 3.

BEECHER: No, we are just talking about phase 1.

NIELSEN: Now, one other thing. I don't know when you guys will do your notes. I've made notes. But is there any chance of when we can get these things, your notes, that you can give them to Mr. Beecher? I can pick them up so that I understand what everybody's talking about. Just go ahead and start working on it. Is that a problem? Because I know that you people have been taking notes on this thing. I would like to go over the notes that you have just the same as I've got, and I can start working on them.

KIMBER: I think that we can do that.

NIELSEN: Is it OK, that when I get these things, that I submit to you guys?

KIMBER: As far as I'm concerned.

BEECHER: Do you want him to submit seven copies of everything and I will disseminate it to you?

NIELSEN: Do you want seven copies made?

KIMBER: If you would, we would appreciate it.

NIELSEN: Do you want seven copies made of that retention basin?

BEECHER: I think anything he submits to us, we ought to have adequate copies made that we can disseminate it to each of you, and I don't have to take the time to make copies of everything.

NIELSEN: All right, I'll do that. When do you think your notes will be available so that I can pick them up? The only reason I'm doing this is, I'm looking at time.

KIMBER: In order to do that, members of the Commission, do we need to hold another meeting and formalize those things. I know what I have in my mind. I know what notes I have. I know Denny's made some notes. I think we need another meeting to formalize those feelings.

BEECHER: Could we ask that to Jon. What would be the legal procedure to formalize and make these changes? Do we need to hold and advertise legally? Hold a special meeting of the Commission wherein they may adopt.

BUNDERSON: It has to be done in a regular meeting. By regular, I don't mean regularly scheduled, but something other than a work session.

BEECHER: So if they advertise a Planning Commission meeting other than a regular one, giving the proper notification and so forth, held that meeting, and then adopted by motion and approval, each change and each one, that would be about the only way they could do it.

BUNDERSON: Yes, just have a special meeting, or do it at any regularly scheduled meeting as you choose.

BEECHER: Other than that, you could do it on the 19th of January, but your next regularly scheduled meeting is when you would formalize each one of those conditions, which you would accept.

BUNDERSON: That's not going to help him.

KIMBER: No, and I can appreciate his concern on this. I guess I would recommend that we do hold a special meeting. I think we could do it in less than an hour. Formalize those things and have it for that one specific purpose to make those changes as we have discussed them here.

BEECHER: What kind of a time frame do we have to have it in? To advertise it? How many days?

BUNDERSON: A special one, I think it is 24 hours notice. It just has to make it into the paper, I think that's my recollection. At least 24 hours.

KIMBER: Thank you gentlemen. January 5, at 7:00. You all got a copy of the minutes.

MEETING ADJOURNED.