

Standing Committee on the Alberta Heritage Savings Trust Fund Act

2:01 p.m.

[Chairman: Mr. Dunford]

MR. CHAIRMAN: Okay. I observe that it is just after 2 o'clock, so we'll call the meeting to order. Thank you.

Does any member wish to read recommendations into the record? Seeing none, I'd like to welcome the Hon. Brian Evans, Minister of Environmental Protection. I would advise you, sir, that we're trying to keep things fairly informal. We've been using first names here amongst the committee, so you may hear us refer to you as Brian from time to time. We don't mean any disrespect when we do that.

MR. EVANS: None would be taken, Mr. Chairman.

MR. CHAIRMAN: Our procedure, I think, would be fairly familiar. We will start with questions from the Liberal opposition. They'll have a question, then two supplementaries, and then we'll switch to government members. Then we'll just rotate as long as questions last or until we've reached the hour of 4 o'clock.

I would want to suggest to you, sir, that you can make any opening comments that you wish and talk as long as you wish provided you don't go over 15 minutes. I might indicate that as visitors come into the gallery, I may be interrupting just simply to let the gallery visitors know what is occurring.

Without further ado, then, we will begin with Mike Percy.

MR. EVANS: Shall I make some introductory comments?

MR. CHAIRMAN: I'm sorry. That 15 minutes, Brian, just flew by. I guess I'm a little anxious or rambunctious after this morning's effort.

I want to indicate to you that of course we are concerned with land reclamation, the Pine Ridge reforestation nursery enhancement, water management systems improvement.

If you would like to proceed, Mr. Minister.

MR. EVANS: Well, thank you very much. I'll do my best to keep to those three topics that are to be reviewed by the committee. First of all, in the spirit of the season I wish to pass on my best wishes to you, Mr. Chairman, and to your staff and to colleagues on both sides of the House. Best wishes for the holiday season. Hopefully we'll be able to manoeuvre through these next two hours and then move on to some other important things. I hope everybody has a chance to get back to their family safely and enjoy the next little while.

I'm pleased to have an opportunity to come before the Standing Committee on the Alberta Heritage Savings Trust Fund Act. This is my first appearance before this committee, Mr. Chairman, and I'm sure that we'll have a very good conversation this afternoon. I'd like to begin by introducing some of my staff members who are here to render some assistance and, if the questions become quite specific, as they may well, to provide some information that I may not have readily at my fingertips. On my immediate left is my deputy minister, Mr. Peter Melnychuk. On his left is our assistant deputy minister of water resources services, Jake Thiessen, and on Jake's left is Larry Brocke, who is the director of our land reclamation division. On my right is my executive assistant, Donna Mastel.

Certainly I'm pleased, Mr. Chairman and committee members, to update the committee on Alberta Environmental Protection's activities during the 1992-1993 fiscal year regarding projects that are funded under the heritage savings trust fund. As you're aware, we

are a new government agency. Alberta Environmental Protection was formed a little over a year ago, on December 15, 1992, by the amalgamation of the departments of environment; forestry, lands and wildlife; and parks. My department is responsible for three projects that operate with heritage savings trust fund dollars, and as you have mentioned already, those projects are the water management systems improvement project, the land reclamation project, and the Pine Ridge reforestation nursery enhancement project.

First, Mr. Chairman, I'd like to give the committee members a brief overview of the water management systems improvement project. As in previous years, I would also like to distribute maps indicating the progress of the various components under this project to the members. Jake Thiessen had those maps, and I think they are in front of you now. The water management systems improvement program was first initiated in 1975 and was significantly expanded in scope in 1980 to ensure that adequately-sized, efficient, and reliable water supply delivery systems are available for all 13 of our irrigation districts in southern Alberta. The program also includes the Berry Creek region in the special areas to the east of Calgary. All of these are to meet existing and expanded demands for irrigation and other multiple water uses.

Mr. Chairman, irrigated agriculture is a vital component of the socioeconomic environment of southern Alberta. Currently there are over 1.4 million acres of land being irrigated in that region, or about 4 percent of the province's cultivated land base. This irrigated agricultural land produces about 16 percent of the province's gross agricultural revenue. That's really quite significant and is a figure that I repeat around the province when I'm talking about irrigation and the impacts.

Approximately 1.3 million acres of the 1.4 million acres under irrigation in southern Alberta are contained within the 13 irrigation districts. Some of the headworks systems that supply water to these districts have operated for nearly a hundred years. When the province assumed responsibility for these water management systems in 1974, it was necessary to rehabilitate, modernize, and upgrade the systems in order to continue to provide the service that is so vital in this region. Mr. Chairman, these water management systems provide a dependable water supply not only for irrigated agriculture but also for a wide range of multiple uses such as a domestic water supply for area residents, water-based recreational facilities, wildlife enhancement, and municipal and industrial uses. Some 50 towns and villages in southern Alberta depend on these systems for their water supply.

Construction of all of the off-stream storage reservoirs under the program is now completed. Reconstruction of the Lethbridge Northern, the United, and the Western headworks main conveyancing systems is now essentially complete. Rehabilitation of the Eastern irrigation district's and the St. Mary River irrigation district's main canals is now complete. Replacements of the Pinepound Coulee siphon in the Waterton-St. Mary headworks and the West Arrowwood siphon in the Carseland-Bow headworks are completed and are functioning. The construction of the Expanse Coulee siphon replacement structure in the Bow River irrigation district is also completed. Now, as of March 31, 1993, over 90 percent of the project work under the program was completed. The total expenditures under the program amount to approximately \$526 million with \$22.8 million expended in the 1992-1993 fiscal year. The program is scheduled to terminate at the end of the 1994-1995 fiscal year.

Moving on then, Mr. Chairman, to the second project which receives funding from the heritage savings trust fund; namely, our land reclamation program. Since 1976 the land reclamation program has reclaimed derelict Crown and municipally owned lands and returned them to productive use while at the same time providing

employment to many small contractors throughout the province. Through modern methods and technology land once used for garbage dumps and sewage lagoons or for sand and gravel operations through mining are transformed into property for agriculture, for recreation, and for wildlife uses. My department worked closely with local authorities to determine potential reclamation projects, and when approved, Alberta Environmental Protection assumed responsibility for the work carried out at these sites. The department conducted all of the project planning, hired the contractors, and was responsible for on-site supervision. To date over 1,500 individual sites have been reclaimed at an expenditure of some \$30 million. Eight hundred of these projects were completed for municipalities throughout the province, another 600 projects were on Crown lands, and the remainder were underground mine hazards which occurred mostly on private lands.

The land reclamation program also provides funding for reclamation research aimed at developing and improving methods of reclaiming disturbed lands. This research is then published by my department through the reclamation research technical advisory committee reports. Seventy-five research projects dealing with the reclamation of coal mines, oil sand projects, as well as oil and gas sites were also completed at a cost of \$13 million. This program is scheduled to terminate at the end of the 1993-94 fiscal year.

Lastly, Mr. Chairman, I'd like to speak about the Pine Ridge nursery. The production and planting of tree seedlings has long been recognized as critical to the future of Alberta's forests. With the construction of Alberta's first tree nursery at Oliver in 1932 the provincial government established for itself a direct role in reforestation on Crown lands. By the early 1970s the Oliver tree nursery was overwhelmed with industry demand. Between '76 and 1985 the Alberta heritage savings trust fund provided \$14.7 million for the construction of the Pine Ridge nursery near Smoky Lake to assume the role of providing seedlings for reforestation. As the forest industry in Alberta continues to grow, demand has increased for seed and seedling services. In addition, industry has had to comply with the forest management Act, with timber management regulations, and each forest management agreement.

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By the late 1980s it was clear that the Pine Ridge Forest Nursery would not be able to meet the government's obligations to supply seedlings for reforestation in the province and the facilities would require significant retrofitting and upgrading. Therefore, the project that we are talking about today was initiated under the heritage savings trust fund in 1990 to help upgrade the facilities. In the fiscal year '92-93, we continued with the construction of a new 6,000-square-metre greenhouse and a 12,000-square-metre outdoor growing area at Pine Ridge.

Mr. Chairman, the three projects that I've described today are important and in some cases essential for Albertans. Certainly each of the projects has improved the quality of the lives of Albertans in many ways. As we look at the 1993-94 budget figures we're presenting to committee members, the numbers reflect a decrease in spending. This was achieved largely through the water management systems improvement program, which is nearing the end of its mandate. These three programs continue to provide essential services for Albertans, and my department realizes that in this time of very strict financial discipline in the province, we have to look at them very, very carefully and make sure that we are being as efficient as possible. The people in my department have applied that fiscal discipline to the management of these programs and will continue to do so.

I'd also like to offer my department's commitment to ensure that these projects continue to use those moneys in the most valuable and

efficient way possible. When you look at the number of people who are impacted by these programs, I think we do have a substantial benefit that can be realized, has been realized in the past, and with the recommendations from this committee will move forward in the years to come.

That is a brief introduction to the three items that we have before us today.

Thank you.

MR. CHAIRMAN: Thank you.

Mike Percy.

DR. PERCY: Thank you, Mr. Chairman. Mr. Minister, then environment minister Klein in 1991 had identified 435 sites that were being looked at. There were 350 dump sites, 30 industrial sites, 80 coal mines, 20 reservoirs, 100 gravel or sand pits, and 55 abandoned sewage lagoons. Last year it was stated that \$2 million was earmarked for 80 new projects. That would leave approximately 355 still remaining, although the mandate of the program will expire in a year. Could you tell us: have the projects that were undertaken in this last fiscal year, '92-93, been completed? The amount spent on land reclamation was 15 percent below the amount actually estimated. Was that because these were done more in a cost-efficient way, or were fewer projects undertaken?

MR. EVANS: Well, Mike, one of the main reasons that there were some moneys saved last year was because there were some land negotiations ongoing, and those were not completed. That's one of the reasons that the moneys weren't spent to the level that was anticipated.

Additionally, I think, Peter and Larry, it would be correct to say that some of our tenders came in substantially lower than what we had anticipated they would be. It was a good market for having work done, and there were a lot of hungry people out there looking for contracts. Certainly the majority of those projects that were anticipated during the last year have been completed.

You raise another good issue, and that is: how many projects are still outstanding? There are a number outstanding all around the province. We have tried to again look at these in a fiscally prudent manner and tried to focus primarily on those projects that have a human health impact. So that's what our focus is right now. Clearly, there are a number of projects around the province -- in the hundreds, many hundreds quite frankly -- that could see reclamation if funds are available.

DR. PERCY: Thank you.

My first supplemental -- in fact you've sort of touched on it -- is the criteria you used to prioritize given the limited funds and the large backlog of projects outstanding. So in terms of the cost/benefit analysis, the focus is primarily on those that yield tangible benefits in terms of health protection first and foremost.

MR. EVANS: Of course we're focusing as well now on the Crown lands as opposed to equally focusing on Crown and municipal lands. That's working with municipalities. We're not leaving the municipalities on their own, but we have to try to identify those criteria for getting into these reclamation projects, and it's clearly on the basis of human health and safety. I wrap the two up together: human health and safety.

DR. PERCY: Could I just follow up on the issue of tendering? Are all projects undertaken, then, by your department tendered? What's the cutoff point at which they are sort of just put out on a contract basis?

MR. EVANS: Peter, do you want to field that, or Larry?

MR. MELNYCHUK: Most of the projects are done on an equipment rental basis, and the equipment rental basis that is used is the one that is used provincially by the Department of Transportation and Utilities. That is, the equipment rental rates are applied so that they are consistent across the province in all kinds of construction.

Just one supplemental to the minister's answer. Another reason why there were unexpended dollars in that particular program was that we had an unusual fall that year, wet, and an early frost. So that was another reason that all of the projects weren't completed. Perhaps Mr. Brocke could supplement on both counts: the number of projects that were done and the ones that weren't done and also the manner in which it's implemented.

MR. BROCKE: Thank you. Mr. Chairman, in '92-93 we did accomplish the majority of the projects that we attempted, given that there's always some trading back and forth of projects -- people aren't ready, or whatever. By and large it was all completed for that year as estimated. As the minister indicated, the pricing was reduced, because it was a good year to be buying those kinds of services. Most projects came in under budget.

MR. CHAIRMAN: Thank you.
Carol Haley.

MS HALEY: Thank you. Mr. Minister, with regard to the irrigation side of the work that your department is doing, on the map you've indicated a number of areas in red. They are indicated to be in the future or presently under construction. My first question is: with regard to the areas in red, how do they fit into your '94-95 termination of this particular program?

MR. EVANS: That's a good question, Carol. Some of them are going to be funded to a certain extent; others we'll have great difficulty with. Now, we're going to be moving ahead with some work on the Western headworks, on the Carseland-Bow River headworks. One very major expenditure, though, is the St. Mary reservoir spillway. When you look at that, we've taken bids on the design work, the engineering work. This is the second stage, the more detailed engineering work. Jake, the total estimate for that spillway is something around \$30 million?

MR. THIESSEN: Forty million.

MR. EVANS: Forty million? So over \$40 million, and we just don't have the money left in the project up to '94-95 to be able to deal with that, so we are trying to use those moneys as well as we can and focusing on a few of the projects that are outstanding. For example, in the Western irrigation district they really didn't get much funding over the last 10 years because of a number of factors. Just suffice to say that they haven't had that much funding, and there are some issues that we're trying to deal with. We're going to deal with all of these in red as quickly and efficiently as we can, realizing that they are potentially difficult areas for us in terms of impacts if we have a failure of the irrigation system.

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MS HALEY: My supplementary is with regard to the total amount that was voted: \$26,400,000. In that same book under the Department of Agriculture, Food and Rural Development on irrigation rehabilitation there was another \$24,500,000. I guess I'm curious to know why there are two separate allotments both dealing with an irrigation system.

MR. EVANS: It's a good question. It's basically historical. The department of agriculture has been involved in I guess we'd call it downstream irrigation issues. We in Environmental Protection have been involved in the headworks. The headworks isn't just the spillway itself; it's the spillway and then down into the system. Agriculture deals with the use of the water essentially off the main canals. So this is an historical anomaly. The funding actually is different as well in agriculture and Environmental Protection. We are working with the department of agriculture to create more of a one-window approach to this so that those who are involved in irrigation are going to have a faster and more precise route to follow in terms of both applications for assistance and in the way that they operate once they have that assistance, once something is in place. That's our objective in this. Walter Paszkowski and his people feel the exact same way, so we're trying to move in that direction. My deputy minister of course was the assistant deputy minister of water resources for many years and is, along with Jake, of course, very much an expert in water resource issues and specifically irrigation.

Peter, you or Jake might want to supplement my comments.

MR. MELNYCHUK: Maybe just quickly, Mr. Chairman. Agriculture's program is focused within the irrigation district to assist the individual irrigation farmers to distribute the water throughout the district and apply it to the land. Environment's program is really one that's focused on overall water management in southern Alberta. That involves many things to ensure that there's a water supply for all uses, not only irrigation: municipal, recreational. Also, because these headworks are located on interprovincial rivers, there's a responsibility to ensure that the water that is available is available for Albertans but also meets our interprovincial obligations. So environment's program does that. It's an overall water management program as opposed to agriculture's, which is to assist the irrigation farmer to apply water to his land.

MS HALEY: My final supplementary on this is with regard to revenue generation. From the aspect that you've just discussed, which is more at a municipal level, do we in fact generate revenue from the supply of the headworks water into those areas?

MR. EVANS: Well, take a crack at that.

MR. MELNYCHUK: Presently the only charge is a once-only charge for a water right. That is the only charge that applies. Now, we need to be careful to realize that the irrigation user, for example, pays an annual fee, but that's for the operation and maintenance of the system -- it's not for the water that comes out of the river -- as similarly a municipality pays for the treatment of water. As far as the Crown is concerned, currently there is only a one-time charge when you get the water right. We are in our business plan and as a ministry looking at perhaps expanding that to apply water use charges more generally across the various users. However, that is something that is subject to some consultation, which we haven't concluded.

MR. EVANS: We're really looking at every aspect of natural resources that we have control over in the portfolio, Carol, to make sure that we are charging a reasonable fee for the use of those natural resources. That's the responsibility that I think we have as a department to the taxpayer in Alberta. So we are looking at that in the context of the contribution that's been made voluntarily by the people down in southern Alberta within the irrigation districts and the cost of that resource.

MR. CHAIRMAN: Okay. Thank you.

Sine Chadi.

MR. CHADI: Thank you, Mr. Chairman. Mr. Minister, in your opening remarks you mention that the land reclamation section of the capital projects spending within this fund will end in the 1993-94 fiscal year. My colleague Mike Percy touched on something, and that is of course the number of sites that were identified prior to this year or last year. Can you give us an indication as to how many sites are identified that will not be able to be dealt with?

MR. EVANS: I said in the hundreds. The actual number is a little over 800, Sine. Now, that is all types of reclamation projects. Certainly I don't want to leave the impression that there are health and safety concerns attendant upon all 800 or so of these projects, but we do have a very substantial list of sites that could be reclaimed over the province.

MR. CHADI: We've spent a substantial amount of money to date. I mean, we've gone to \$42 million that we spent probably since the inception of this program. It seems to me that it's an awful lot of money just to do the reclamation and sit on the properties. I'm wondering if there aren't other methods of financing the reclamation of the 800 sites, even if we don't have to go through the heritage savings trust fund. For example, are you looking into those sorts of avenues of funding?

MR. EVANS: Well, again, there are basically three categories of lands that are subject to reclamation: the Crown lands, of course -- and that's our first priority -- secondly, municipal lands; thirdly, private lands. Now, we are trying to find creative ways of dealing with these issues, and we're going to have to do that even insofar as just the Crown lands because of diminishing resources. We have to work with and continue to work with municipalities as well as they identify other lands, and there may be some other ones that are identified over time. Perhaps Larry might want to comment on this. I think the inventory that has been done around the province is quite an extensive inventory, and there's a sense of confidence that we won't be coming up with another rash of properties all over the province that could be candidates for reclamation.

Larry, do you want to add to that?

MR. BROCKE: That's about right, I think. Of that 800 it continues a lot of the kind of projects that have been done up to date, like old landfill sites, old sewage lagoons, old municipal sand and gravel pits that have been mined prior to the legislation so that there were no rules in place. I think we're quite satisfied that that 800-plus number is pretty close, but you never know what else you might find somewhere.

MR. CHAIRMAN: Okay. Second sup.

MR. CHADI: So the properties that require reclamation: I'm wondering if the parties that were responsible for the destruction, if you will, or for bringing it to a position where it has to be reclaimed -- there is no recourse on municipalities? Can they not be cost shared somehow? I'm just thinking in terms of all the different sites that potentially may be out there, particularly with respect to, say, gas stations, petrochemical type contamination.

MR. EVANS: Well, certainly, Sine, one of the principles of our department is polluter pay, and when we can trace back the polluter, then undoubtedly we would proceed against that polluter.

Two parts to that equation. Number one is: what were good and workmanlike conduct processes at the time that the problem

occurred, and was anybody negligent at the time, or is it now in 1993 that we realize that some of these methods caused pollution? If that's the case, then how successful are you going to be if you do proceed if you can find the owner?

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Secondly is just the length of time and the regulatory regime we had in place at the time some of these projects were ongoing. You know, if we didn't have the control at that point in time and if we can't find the owner, then who's to be responsible? Well, that's society in general, but we would try to mitigate society's responsibility wherever it's possible to do so by proceeding against the then owner or the current owner if that's appropriate under the circumstances.

MR. CHAIRMAN: Okay. Thank you.

Before we proceed to the next question, we have some special guests in the gallery. Carol Haley, would you care to tell us who they are?

MS HALEY: Yes. Mr. Chairman, I'd just like to introduce my son Jason Haley, sitting up in the members' gallery. Jason, would you please stand for a second?

MR. CHAIRMAN: Okay. Ed Stelmach.

MR. STELMACH: Thank you, Mr. Chairman. Good afternoon, everyone. My questions will be rather specific to the Pine Ridge nursery. As you may know, a number of people living in the Vegreville-Viking constituency are employed at the nursery. In reviewing the amount of dollars that was spent on the retrofit and the expansion last year, around \$704,000, how is the expansion continuing presently at Smoky Lake? How far have we progressed?

MR. EVANS: Well, actually most of the project was completed back in '92-'93, with a few finishing touches this year. I was there during the summer, and everything is completed now. We've had new louvre screens put on the new greenhouse. Blackout curtains have been put into the greenhouse, and as well there are computer control boards in place for that new greenhouse. The irrigation control booms have been put in place, and they are now operating to water the greenhouses. Again, really just finishing touches this year to make sure that facility is operating up to snuff.

MR. STELMACH: Mr. Minister, could you give us an idea of where we are in terms of supplying the number of seedlings necessary given the increase in the growth of the industry, the amount of deforestation that goes on?

MR. EVANS: That, of course, is the main reason why Pine Ridge was retrofitted, to ensure that the province could supply -- we're up over 30 million seedlings coming from that facility now.

I think it's important, though, to point out as well that we saw a benefit to the private sector from getting involved in this kind of process. We now have 17 growers in the private sector who are supplying to Pine Ridge, supplying to government. That really began in 1990-91 and continued thereafter. I think we have a terrific opportunity to encourage our industry to become more involved, and as that industry proves its track record over time, particularly the forest management agreement holders are going to be more and more inclined to use our Alberta-based growers to deal with their requirements under those forest management agreements. So it's certainly an expanding industry both from the perspective of Pine

Ridge itself and with respect to private enterprise opportunities that exist as well.

MR. STELMACH: Mr. Minister, presently we supply about 30 million seedlings. What's the potential for growth? Do we need 50 million, 70 million?

MR. EVANS: That's only 30 million from the Pine Ridge facility. It's anticipated we may need 100 million seedlings per year to live up to our Free to Grow standards that we have in the department. As Peter was just mentioning to me, last year we were over 70 million seedlings for a grand total, so it's again a blossoming industry for Alberta.

MR. STELMACH: Thank you.

MR. CHAIRMAN: Okay. Thank you.
Lance White.

MR. WHITE: Turning to irrigation projects and the water management systems, from your statements earlier I understand that some of these projects in fact supply some municipal domestic water as well as for wastewater and the like. Correct me if I'm wrong, but by and large these projects are for agricultural purposes; at least they have been in the last 10 years. Recognizing that services in the agricultural area were originally, I think prior to 1972, all set up on a user-pay basis and that we're in an era now of heavily subsidizing agricultural products through marketing boards and freight rates and the like -- note the recent GATT round -- tell me why it is that this government feels it's absolutely necessary to continue the subsidization of these water projects and, therefore, the farmers that derive services from these programs.

MR. EVANS: Well, Lance, as was stated earlier, there is a water right cost that is associated with the farmers, and then they pay a fee as well for the use of the system itself during the year. We are looking at whether that is adequate compensation back to the province for the amount that has been expended. You know, we're talking in excess of \$500 million that's gone into the irrigation projects, and we will work with the farmers who are benefactors of the system to try to identify whether in fact we do have an adequate cost for the use of that water resource. Again, I want to remind committee members that there is a very, very substantial benefit to this kind of process. You know, we're talking about roughly 4 percent of the land of the province, and because of irrigation we're at about 16 percent of total agricultural production in the province. Just in terms of output, that equates to well in excess of \$700 million or \$800 million of output, which is really very, very substantial, so the gross benefit the province is receiving from this kind of capital expenditure must not be discounted.

MR. WHITE: The question that follows from that, then, is: if we as a society subsidize the end product and subsidize the inputs, who is to say what the market value of the product actually is when we come to market it? Is it not much wiser to subsidize on the market end so you at least have a reading of what it costs society? As I understand it, you're unable to tell me, as I have to tell my constituents that are central Alberta urbanites, why it is that we subsidize on both ends and still cannot tell where the money goes and whether it's -- or we can tell where the money goes; we can't rationalize the utility to my citizens. I mean, I can't do that.

MR. EVANS: Well, I can't speak about subsidization on the other end -- that's not part of environmental protection -- but clearly there's

no direct subsidy going into the hands of the agricultural producer in southern Alberta. What has happened, though, is that government over time has made a commitment to providing irrigation in southern Alberta. Now, that certainly has assisted our agricultural industry, but let's look at the other positives. We have developed an expertise in irrigation unparalleled anywhere in North America. For example, in the NAFTA I think we'll be able to get substantial benefit from that while we move forward through NAFTA. The country of Mexico is talking about a \$2 billion investment of capital in irrigation projects, and they're looking to Alberta and our private-sector industry to assist them with that kind of project because we do have that expertise here. So there's not a direct subsidy in any sense other than as we're looking at right now: whether there should be a water use charge and whether that would more accurately reflect the cost of the resource itself as opposed to the capital cost of putting the irrigation canals down in southern Alberta.

In addition to just the straight agricultural benefit, let's not forget that there's a substantial benefit for water-based recreation opportunities in southern Alberta. Certainly wildlife benefits as well, having that water source in southern Alberta. Peter is, though, as I said, the resident expert on irrigation, and I'd like to hear from him and then perhaps Jake to supplement.

2:41

MR. MELNYCHUK: If I just might add to that, when the government was trying to determine what should be the cost sharing on rebuilding the infrastructure for southern Alberta water management -- which in many cases was first constructed in the 1930s and '20s, so there was an industry developed based on that infrastructure -- when it came time to rebuild those systems, which serve, as I indicated before, a variety of uses in addition to irrigation, certain studies were commissioned through the University of Alberta and, I think, the University of Calgary to determine where the benefits were from the irrigation industry. Those studies concluded that 86 percent of the total benefit from the irrigation industry accrues to the region and to the province and to the country and only 14 percent accrues to the actual water user or irrigator. That was the basis for determining the sharing of cost to rebuild those original infrastructure systems that, as I say, in many cases are over 60 or 70 or 80 years old. That was the thinking behind the cost-sharing arrangement.

Perhaps Mr. Thiessen would like to -- I'd just like to make one more comment. Today the irrigation industry is responsible for about 4,000 jobs both directly and indirectly, and 30 percent of regional employment in southern Alberta is tied to the irrigation industry.

MR. THIESSEN: Thank you, Peter. Maybe just to add to that, certainly, as you've mentioned, there's a long history behind the irrigation systems going back about 100 years. Around that infrastructure has developed not only agriculture but an entire secondary industry, and the towns and villages in southern Alberta depend on those systems for their water supply. A total of about 50 communities get their entire municipal water supply directly from those irrigation canals. That's a very important part of the entire infrastructure, and it's quite a bit different from what we have in central and northern Alberta where we're also in the business of water supply and water management. We have built pipelines in the central Alberta area to supply a number of towns, and similarly east of here, but the irrigation infrastructure performs that function in southern Alberta, where towns of up to 10,000 in population receive their water supply.

So this entire system -- and the other thing on these programs is that the funding is a one-time commitment to rebuild and enlarge the

infrastructure that was there. We've expanded the irrigation acreage, about doubled it from the time the heritage savings trust fund first started to be used on the one-time rehabilitation. We've moved from approximately 700,000 acres to 1.4 million acres over that period of time, with returns, as the minister mentioned, of close to a billion dollars a year only in terms of primary produce, not counting the secondary spin-offs in terms of canning industries and all those other kinds of things. So it's a fairly big picture to look at the overall economics of what these water systems represent.

MR. EVANS: I guess it should be said too, Mr. Chairman, that Alberta is such a diverse province. Eighty-seven percent of the water in this province is in the central to northern part of the province, and we have 13 percent in southern Alberta. You, coming from southern Alberta, realize full well what the impacts would be on that area of our province were it not for irrigation. The last couple of years have been interesting anomalies, particularly this summer, but the norm in southern Alberta over the past 80 or 100 years we've had those systems in place or being constructed has been exceedingly dry, and the forecast for the future is certainly to continue in that vein rather than that area becoming any wetter.

MR. WHITE: Has there been any recent work, any papers produced, in the area in which all three of you have just expounded at some length? Answering these fundamental questions -- it's difficult to question with any depth at all some of the fundamental assumptions of theory you've put out today with the numbers you've responded with. I for one would like to see some work done on that, because it's a question that's not often asked of myself and the average citizen. Some of my former engineering colleagues, certainly some that are based in and around the city of Edmonton, say, "Look, the fundamental question is: why locate and subsidize all that there when, if you turned off the provincial government's money tap, you'd have a lot of dry, parched throats down there?" Perhaps, but it's expensive to do that as opposed to the natural selection of economics that we're heading towards rapidly in the GATT route.

MR. CHAIRMAN: Is there a question there?

MR. WHITE: Yes.

MR. EVANS: Yeah. The question is: what kind of research is being done on a continuing basis? I assure you, Lance, that research is being done on a continuing basis by the umbrella organization for the irrigation projects in the south, and that's the Alberta Irrigation Projects Association. They realize full well that they have to justify on a continuing basis the infrastructure that is in place and make sure all Albertans are satisfied with the results. Jake Thiessen has been working with the irrigation projects on their most recent review and study, and maybe he can give you some further details on that.

MR. THIESSEN: Well, yes. As Peter mentioned before, the original irrigation studies to determine the 86-14 cost-sharing formula go back to the mid-1960s, so that's 30 years ago. The most recent initiative that the Alberta Irrigation Projects Association funded: they retained their own consultant to come in and basically reaffirm whether that formula still applied. What are the immediate benefits to irrigation in terms of crop production? Then there are also spin-off benefits coming from things like the construction industry, the consulting/engineering industry, and so on into the secondary food processing industries that have established themselves in southern Alberta, as well as the export. One of the things that comes to mind immediately is that they addressed the

large cattle-feeding industry that has developed in southern Alberta and the dairy industry. Most of the milk for Calgary, for example, comes out of the Lethbridge Northern irrigation district -- those kinds of things. They identified in numbers how many dollars of sales in beef cattle, for example, are now being exported to the United States that come primarily from that irrigated area.

I don't have all the numbers at my fingertips, but certainly that study is available and answers a lot of those questions.

MR. WHITE: You'll provide it?

MR. EVANS: Yeah, sure. We'll get you that information, Lance. I know that study did say there might be as many as a million feeder cattle moving to the U.S. if there was no irrigation in southern Alberta. Again, well over a billion dollars in indirect output costs to our Alberta agricultural industry, thanks to the irrigation in southern Alberta.

2:51

MR. CHAIRMAN: Okay. Thank you.
Victor Doerksen.

MR. DOERKSEN: Thank you, Mr. Chairman. I want to turn back to the Pine Ridge reforestation nursery and describe a picture for you in terms of how I understand it and have you confirm to me that this is how it works. The Pine Ridge nursery now supplies all the seedlings for the reforesting industry as well as for Crown land and so on and so forth, and they in turn get their supply from a bunch of private operators. Is that correct?

MR. EVANS: Pine Ridge supplies about one-third of the total demand we have in the province. What they do is that after an area has been harvested, they take the seeds from that area. The forest management holder or quota holder will take those seeds; they are then taken to Pine Ridge and are grown as seedlings in lots and then given back to the operators to utilize for replanting in that forest management agreement area.

MR. DOERKSEN: Where I'm going with this thing is that I'm not sure we are getting a full cost recovery. We have private operators. Can we not eliminate the middleman, if I perceive the Pine Ridge nursery as a middleman, and have them go direct to the private suppliers and pay for it?

MR. EVANS: Yeah. That's one of the things we have been working on, Vic, to ensure that again those 17 operators in the province are getting full value for this but, as well, that the industry is picking up the costs of the reforestation. Again, the reason the province was involved in the first place is historic. We've been involved in this business since 1932 with the Oliver nursery, but in those days that was to replace trees in areas where we had fire, where we had other disruption to the land base. Over time the equation has changed a little bit with the expansion of our forest industry development in northern Alberta. So we've looked at it carefully. We've met with the industry, and the industry recognizes they have to take on added responsibility for regeneration of forests in their areas. It's something that we are working on, and we're trying to make a full cost recovery.

MR. MELNYCHUK: Just to clarify a point here. The reason the Pine Ridge nursery is there is because the tree seedling nursery industry in Alberta isn't able today to produce the number of seedlings required for reforestation. One-third of those seedlings are coming from the Pine Ridge nursery, some are coming from B.C.,

and some are being developed here in the province. As soon as our nursery industry gets going and becomes competitive, then less and less seedlings will need to be produced at Pine Ridge.

MR. DOERKSEN: I don't profess to have in-depth knowledge on this, so maybe I'm missing something here. If the industry were to pay the cost associated with getting those seedlings -- because they now are under an obligation to reforest where they have been -- and if they're having to purchase at their cost, there would be private industry that would step forward and produce it for them and we would have supply. The government, if I'm understanding it correctly, appears to be subsidizing the reforestation part of it. Am I missing something, or am I pretty close?

MR. EVANS: Well, in the past, Vic, that was definitely the case. But as I mentioned earlier, we are moving to full cost recovery, and that's going to be an encouragement to the private sector to become more heavily involved. Again, because this initiative has been so short term -- it takes a track record of at least three to five years before the industry itself is confident enough that those suppliers will deliver a good product. Of course, they have a responsibility to put those seedlings in the ground. They want to make darn sure they are quality seedlings, because their responsibility is not going to end if they have found someone who does not have that expertise. So there's really a very close relationship now between Pine Ridge and those 17 operators to ensure high quality. I think over time there will be that assurance and that confidence in the industry, and they'll move more and more into dealing with the private sector in terms of supply.

MR. CHAIRMAN: Okay. Thank you.
Grant Mitchell.

MR. MITCHELL: Thanks. I'd like to pursue Victor's line of questioning, but I'd like to take it one step further. I'm surprised, actually, that he's just talking about cost recovery and not about privatization. I wonder whether the minister could indicate why we wouldn't privatize Pine Ridge nursery. It seems to me to be a good candidate for that, and there could be some real promise.

MR. EVANS: Yeah. I've mentioned before, Grant, that that's certainly an alternative we're looking at. That's one of the main reasons I went up there during the summer, just to take a look at what the operation is all about, knowing the historical reason for it being there. They have a tremendous research capability at that location, which is a substantial benefit to the industry itself in terms of genetics for trees, cloning of trees, making a better product, splicing new trees with old seed and vice versa to ensure that we get maximum cone production as quickly as we can. That kind of capability does not exist in the private sector. Most of the operations that are in place now are anywhere from a million to a million and a half seedlings per year. That's about the maximum right now. So it's a benefit to the industry to have that research capability at that location.

Now, that begs the question: with the other research opportunities we have around the province, couldn't we move that research component to the Research Council or the Alberta Environmental Centre or what have you? We're looking at that as well. We want to be as cost-efficient as possible here, but recognizing how important it is to, number one, have security of supply and, number two, have that ongoing research capability, we're going to move on this probably slower than one could argue would be the decision on strictly an economic evaluation. I think it's very important that we look at the bigger picture before we move out.

MR. MITCHELL: I certainly appreciate that caution, and I think we would all agree that research in that area is a very important function. But something I think you said earlier or Victor said earlier is that gradually, and maybe not so gradually, as these 17 other operators are getting up, establishing their criteria, clearly they will appeal increasingly to the industry and the value of Pine Ridge nursery will be diminished. Would it not therefore be wise to segregate as quickly as possible the research function, decide what to do with that later and sell the nursery function while there's still value in it?

MR. EVANS: Well, I don't think the value of that nursery will ever go down. Again, we're talking about a demand in Alberta for about 100 million seedlings. We're now supplying 72 million in total. There are almost 30 million seedlings in addition to what our capacity is today -- and taking into account B.C. as well -- that will be required in the future. So I don't think the value of that will diminish. But by virtue of the size of it today, it would take a very considerable amount of money to be able to purchase that and then to run it on a continuing basis.

So those are all good points, Grant. Believe me, they're not lost on our department. We're looking at privatization as a possibility and probably a goal for our operation.

MR. MITCHELL: Would it be possible for -- I know there has to be some caution in this too -- the industry itself to purchase that kind of nursery facility as a joint venture? They certainly would have the economic prowess to do that, and we regulate to make certain that it's done properly and that they meet their obligations.

3:01

MR. EVANS: Well, in point of fact, we wouldn't even have to regulate the operation itself. We regulate the productivity of the reforestation process, and we do that on a regular basis with our lands and forests people. So we do make sure that the companies are living up to the Free to Grow standard. I think the industry has looked at that Pine Ridge facility as a possible purchase, and those kinds of discussions will be ongoing. Quite frankly, you know, you've got two parts of the forest industry. Right now the sawlog operators are in very good shape, and they're focusing on taking care of some very good prices and making sure they are producing. Then you look at the other side, the pulp and paper: really depressed markets. They're very concerned about just their continued viability. So I don't think Pine Ridge has reached the top of the priority list for either segment of our forest industry, but in discussions I've had informally with Alberta Forest Products Association members, it's certainly something they are well aware of and are considering.

MR. CHAIRMAN: Okay. Thank you very much.
Denis Herard.

MR. HERARD: Thank you, Mr. Chairman. Mr. Minister, in your opening remarks and again in a response to a question from Carol Haley you talked about the St. Mary spillway requiring about \$40 million. I look at this map and I see quite a number of red projects, projects that are either future or presently under construction. I'd like to know how much of the areas in red are in fact under construction and how much will be required at the termination of this particular program, which you indicated would be in '94-95. How large a program are you going to have to replace it with?

MR. EVANS: Well, those are good questions, Denis, and because Jake Thiessen is involved in this on a day-by-day basis, he can give you much more up-to-date information than I could.

So, Jake, can you maybe go through each one and give an update on this?

MR. THIESSEN: Sure. Thank you, Mr. Minister. Maybe starting at the top left-hand corner of the map, the Western headworks -- and this map, of course, gives a picture of where we were at up to March 1993. So the Western headworks will be complete. The remaining work there is virtually landscaping and that sort of thing, so that's done. The Carseland-Bow headworks will not be complete. In fact, we've barely started that. There are several structures like the West Arrowwood siphon and bridge structures that have been done, but the main part of that will be remaining.

Moving to the right, the Snake Lake reservoir has not started and will not be completed under this program the way we're going now. The rest of the Eastern irrigation district main canals are now complete, and that's the major part of the funding for that area.

Moving down from there, the Expanse Coulee siphon is now complete. At the time there was again basically landscaping and some small connections left to put in.

Another major one, the St. Mary spillway: we have done the preliminary engineering work and are now moving into detail design. That structure will not be complete under this program.

Finally, the United headworks, which is in the extreme bottom left-hand corner, is also in its final stage of completion this year.

So on this map we are left with three projects: the Carseland-Bow River headworks, which is a very large amount of funding to do that entire reach of canal; the Snake Lake reservoir, which is relatively minor -- there's a \$6 million commitment to it; and the St. Mary reservoir spillway, which is some \$40 million.

So outside of the current program we have those three projects that I've mentioned, and then two irrigation districts would also like the program to extend. This would be a change of scope. It would be new projects, over a longer period of time of course. So basically we're finished what's on this map except for three projects.

MR. EVANS: Again, Denis -- Jake can correct me if I'm wrong -- we're better than 90 percent complete on the current program, which comes to an end in '94-95.

MR. THIESSEN: Yes, and just to elaborate on that, there have been very massive projects, some of which took 10 years to complete. The St. Mary River irrigation district main canal, for example: some 280 kilometres from south of Lethbridge to Murray reservoir near Medicine Hat. This canal was enlarged and upgraded very significantly. It took a long period of time to do that, but it now has not only a much upgraded system from what it was but also increased capacity. The same is true for most of those. These were very major projects that were undertaken starting in 1980. We're now looking at the 13th year of that program, and that's at the end of what this report is about. At the current time, today in December, we're only 15 months away from the end of the 15-year mandate that the program was first envisaged for. So, yes, we're over 90 percent complete, and then there were several increases in scope and expansions to the program over its life that were approved during that time period.

MR. HERARD: Just for clarification, you indicated \$6 million for the Expanse Coulee siphon.

MR. THIESSEN: No. The \$6 million was the province's commitment to the Snake Lake project, and that has not yet been started.

MR. HERARD: The one you didn't comment on cost on was the Carseland and Bow River headworks. You just said it was a very expensive project, but you didn't put a figure on it.

MR. THIESSEN: That's right. I didn't put a figure on it because I didn't bring it with me, but it's in the order of about \$80 million.

MR. HERARD: Thank you.

My second question is: are we building canals much the same way as they were built in the past, or as with everything else, is there some newer technology to that sort of construction?

MR. EVANS: Leakage has been one of the major concerns over the past, and certainly we've got that under control now, I think, with liners. What are we? About 32 percent better now at dealing with leakage from the canals themselves? So from my perspective, Denis, that's the major improvement we've made to the canal system itself, the infrastructure itself. Jake or Peter might want to add something to that.

MR. THIESSEN: If I could just add to that in terms of a little more detail. The original canals in southern Alberta were built on the contour of the land. In other words, they were built along the slopes just to get the proper gradient, and they were done by simply excavating the earth from inside the canal and putting it up on the banks. In most cases they didn't even bother to strip the topsoil because they were working with horses and handscrapers and that kind of an operation. That's talking now 70, 80, 100 years ago. Today we go in, we strip all the topsoil off, and we build the banks out of clay material. Where we can't find enough good clay material, we line them with a PVC liner. I'm talking now about the major canals; the small distribution laterals are now being put into pipelines. So, as the minister said, about 30 percent of the canals are actually lined with a PVC liner. The banks are then protected with a gravel cover so they will not erode, because our problem in the past was that all this eroded material was coming out of the canals, wearing them away, and depositing it in the reservoirs. Today you'll see that those same canals are running clear water down to the reservoirs and to all the end users, so there are significant improvements. The structures are now all made, of course, out of reinforced concrete, where a lot of them initially were wooden structures that deteriorated very rapidly.

So, yes, the standards had to be set at the beginning of the program. They are generally looking at at least a minimum 50-year life on the major rehabilitated canals, and some of them will last much longer than that.

MR. HERARD: That's all. Thank you.

MR. CHAIRMAN: Don Massey.

3:11

DR. MASSEY: Thank you, Mr. Chairman, and I apologize for my tardiness, Mr. Minister. May I ask about the reclamation research? I guess the first question: how are those funds disbursed?

MR. EVANS: Well, much of that research does happen in-house. I suppose a lot of it is done at the Environmental Centre itself, a little bit, maybe, at the Research Council, Don. It's a matter of identifying what the specific issue is and then doing a costing on it and paying for it out of that reclamation budget. It's not in percentage a large part of the budget.

Larry, what percentage would that amount to?

MR. BROCKE: It's about 20 percent.

DR. MASSEY: Which is how many dollars?

MR. BROCKE: I could add something.

MR. EVANS: Do you want to?

MR. BROCKE: Sure.

If I could add some to how the research part of the reclamation budget is dispensed. There is a technical advisory committee that consists of both government and private people that either solicit or review unsolicited proposals for research projects. Also, our regulatory program in the reclamation division spurs a lot of the research that needs to be done to help us with the regulatory end of the program. So projects are identified in that way, and then we'll either put out a call for proposals for someone to take the project on and we'll fund it that way or we'll entertain unsolicited proposals. I think it's important to note here, too, on the research budget that of the \$500,000 or so we spend a year on research, there's roughly an equivalent amount spent by industry. We do a lot of co-funding in the research program.

DR. MASSEY: Thank you. May I ask: when those proposals are submitted, what kind of administrative costs are usually allowed for?

MR. BROCKE: That's hard to figure.

MR. EVANS: Well, in terms of industry's input, I think that's all volunteer. In terms of our staff, it's really internal again. I'm not sure if it's costed out on an hourly basis or anything like that, Don, but it's kind of ongoing. It would not be a significant cost relative to the total amount that's spent. It's just a matter of vetting a proposal, and once that proposal is approved, then you're dealing with the research dollars themselves to try to come up with a product at the end. I would doubt whether there's very much, if any, administrative expense during the research time frame itself.

DR. MASSEY: Yeah. I was trying to find out if the proposals had an administrative line that they had to determine before the proposals were approved.

MR. EVANS: Oh. For a specific request for funding, what portion of the request would amount to an administrative cost?

DR. MASSEY: That's correct.

MR. EVANS: I don't know that off the top of my head, but we'll certainly look into that and give you some specifics on it. There must be a maximum, I'm sure, that is appropriate. I think it's a good question. We should be looking at that kind of thing.

MR. CHAIRMAN: A lot of that was clarification, Don. At this time did you have another question?

DR. MASSEY: No. That's fine right now. Thank you, Mr. Chairman.

MR. CHAIRMAN: All right.
Bonnie Laing.

MRS. LAING: Thank you, Mr. Chairman. Mr. Minister, I wanted to talk about the prairie conservation action plan. It's my understanding that the government is working on developing a

policy to support this. Has your department been involved in this at all, or has it done any work on this preliminary section?

MR. EVANS: Again, Jake Thiessen is very, very involved in this, Bonnie, on a continuing basis. Jake, I'm going to ask you to make some comments on it. It's one of those things where as a department we give that responsibility to the assistant deputy minister in charge.

MR. THIESSEN: Well, sir, in terms of ongoing involvement, yes, the prairie conservation action plan is one of the plans this department is supporting. Recently we've released some literature on a review of methods of reclamation of native grasslands in Alberta, and this will allow native prairie which has been disturbed by various types of industrial activity to return to a more natural state and its original condition. So while there hasn't been a great deal of funding spent on this type of initiative, certainly I think it's probably one you'll see more activity on in the future.

MR. EVANS: It's certainly something, Jake, where Alberta has really led the charge. We've been trying, Bonnie, to encourage our other prairie provinces, Saskatchewan and Manitoba, to become involved in this. We're almost now at the end of the current term, and at the Canadian Council of Ministers of the Environment meeting in November that I attended in Saskatoon, we talked about a recommitted effort on the prairie conservation action plan. That was agreed to by our colleagues from Manitoba and Saskatchewan, and we hope it will become a more broadly based effort in the future.

MRS. LAING: Then perhaps in the future would there be some type of local initiative support such as -- I'm thinking of Calgary. Fort Calgary is trying to reintroduce the site back to what it was in the late 1800s.

MR. EVANS: That's altogether possible. I know they are getting some assistance now with reintroduction of prairie grasses on that site. I don't know whether that is administrative assistance and whether it's coming from the prairie conservation action plan or not, but I know they are working on that. An area in my own constituency out at the Cochrane Rancho: again a program ongoing there to re-establish native grasses.

MRS. LAING: I was going to ask you also about the new names, apparently, for Alberta soils that have been developed as a strategy to reintroduce the soils to provide up-to-date information for sustainable development planning purposes. I understand Alberta Agriculture, Food and Rural Development has also been involved in this.

MR. EVANS: Yes, indeed, and we're in the process of producing a manual, Bonnie, identifying the characteristics of all the soils in the province. I certainly hope that's going to help industry to get a better sense in their own planning, in their operations, of what soils are and what the opportunities are with them. It'll provide greater detail and a description of soils throughout the province and identify some handling problems that could be encountered. It's a new way of looking at an old problem, quite frankly.

MRS. LAING: Would this also have implications for education purposes? I know that even in the elementary curriculum they studied the zones, so would it also have implications later on for education?

MR. EVANS: I would certainly hope so. Yes.

MR. CHAIRMAN: Okay, and thanks for that advice.
Mike Percy.

DR. PERCY: Thank you, Mr. Chairman. I'd like to come back to the issue of land reclamation. Certainly your department has identified -- you've noted the backlog that exists from municipal and Crown sites to be reclaimed. There's certainly also the wide array of lands currently in private hands that need to be reclaimed, from service stations on and the like. My question hinges on the issue of a registry of contaminated sites, which is something that's often been talked about. Certainly as it presently stands, your department, because of this backlog, has a very good idea of municipal and provincial. Is it the intent of the department to use this as a basis for a roster and then tie it in to sites provided by municipal, local governments?

MR. EVANS: As you know, Mike, over the past three years we've been doing an inventory under the MUST program, management of underground storage tanks, for those contaminated sites around the province. Again we have developed this inventory of contaminated sites generally that identifies some 809 sites around the province. Clearly, we want to have a system that is both beneficial and helpful to us as a department with respect to the Crown land as well as industry with respect to any private lands and our municipalities with respect to lands over which they have jurisdiction. So we're going to continue moving in that direction.

[Mr. Herard in the Chair]

DR. PERCY: Am I to take it that's yes . . .

3:21

MR. EVANS: Yes.

DR. PERCY: . . . and that it will be a roster? That wasn't a question. That was a rhetorical question, observation.

The first supplemental. In many instances, then, private owners of an environmentally degraded site will walk away, and then it reverts to society as a whole to pick up the tab.

MR. EVANS: Or the lender.

DR. PERCY: Or the lender in many instances. What efforts are being undertaken by Environment in conjunction with Justice or Municipal Affairs to try and get a stronger handle on liability through time on these types of sites? It's a little beyond the scope here, but it's certainly an important issue because the backlog that you have represents, in many instances, people walking away from responsibilities and being able to do so.

MR. EVANS: A good question. The Land Surface Conservation and Reclamation Act of course is one of the nine Acts that came into the new Environmental Protection and Enhancement Act, Mike. Many of the reclamation provisions under that old legislation have moved straight across into AEPEA, but there's a new focus again in AEPEA, and that is on polluter-pay. So we're going to recover as much as we can if we can track down and if we can find that guilty party. It requires you to determine guilt, number one, a guilty mind in some circumstances. There's really no absolute or even strict liability for most of these contaminated sites because they are substantial costs and the courts wouldn't give you a judgment on an absolute or even a strict liability basis, certainly not on an absolute. Strict liability: you know, if what you did was reasonable in all the circumstances, are you then liable? The guilty mind is when we can

clearly show that there was mens rea in contaminating a property, but that's not the norm.

So we have to act on the provisions in AEPEA that give us the right to go after contaminated sites and contaminators and do everything that we can whenever it's possible to recover the costs from those who have polluted because, as you said, if we can't find those individuals, can't find those corporate entities and can't get some recourse from them, then society itself -- that means all the taxpayers of the province -- is going to be responsible for these cleanups.

DR. PERCY: I agree with your comments. I guess that brings me to my second supplemental. Some specific industry associations -- for example, the Alberta Battery Recycling Association -- have then proposed disposal fees as a mechanism at least generating revenue today to apply to these contaminated sites for some type of cost recovery from current consumers to clean up past degradation. Is the department pursuing those types of initiatives?

MR. EVANS: Basically what the battery recyclers are talking about is having some kind of a fund set up, much like our beverage container legislation, that would ensure that batteries are taken care of and are not dumped on a side road. In talking with the industry involved in the retail of those batteries, I understand that they have a very, very good success rate in recovery of the batteries and that they have taken really quite a responsible position in terms of opening their doors to the return of used acid batteries. However, on the bigger picture, you know, we have a reclamation fund, but a lot of it is bond. It's not great, huge gobs of cash that are available for orphan sites, and so I think we have to look creatively at ways of replenishing and/or supplementing the fund that is available today.

It's difficult, though, in these tough economic times to throw all of that responsibility or even a substantial amount of that responsibility on an industry that's operating now with the very, very stringent environmental controls that we have. That's a cost of doing business, and so we have to be cautious about that and realistic insofar as not creating costs that will cause industry to pull out of our province or to shut down, because that will just create more economic difficulties for us. I'm being a little repetitive here, but we certainly do want to find creative ways to have moneys put aside for those societal obligations to reclaim.

MR. DEPUTY CHAIRMAN: Carol Haley.

MS HALEY: Thank you, Mr. Chairman. With regard to the Pine Ridge nursery and the seedlings that are grown there, could you tell me if the seedlings are specifically for harvest trees with potential to be harvested later, or are we actually replacing forests that have been removed?

MR. EVANS: Well, Carol, what happens is that you have a cut occurring in a forest, if we're talking about a commercial operation. There's a responsibility, then, to reforest that area. Now, depending on whether it's hardwood or softwood, there are different methods that are used. The seedlings assist in that process if natural reforestation does not take hold, and that's the reason for that. Now, there are other applications though. Again, when we were talking earlier, I mentioned forest fires; okay? There is an opportunity to actually plant seedlings to try to take care of those areas that have suffered forest damage because of fire. But our fire management is much better today than it was 30, 40 years ago, so instead of having a major fire every 40 years, it's now every 60 to 65 years that we're having fires. Luckily, thankfully, we're not putting as much money into those kinds of operations as we were in the past.

MS HALEY: But are we actually planting trees just for the sake of harvesting in 20 years from now?

MR. EVANS: Yeah. We have a standard in the province called the Free to Grow standard, and that standard requires a certain number of trees per acre when you are reforesting. I think it's per acre; maybe it's per hectare now. After a review period to see how natural reforestation is taking place, then there must be hand planting to supplement that if the Free to Grow standard has not been met. So those seedlings are filling that function specifically.

MS HALEY: Okay. My final question is with regard to the industries that have benefited from our forests in Alberta, such as the pulp and paper mills, the saw mills, and as well the logging companies, the trucking companies. Is there enough profit being generated through taxes to compensate the province for all the money that's being spent dealing with the problems that they have?

MR. EVANS: You're talking about stumpage fees primarily when you're talking about the industry itself. There has not been an increase in stumpage fees since 1975. In 1982 there was an effective increase because of metrification, but there actually has not been an increase over that period of time. About a year ago last September, the department entered into discussions with the Alberta Forest Products Association representing both pulp and paper and sawlog operators in the province. We are making very, very good progress in terms of an agreement that would see higher stumpage fees and a system that would be based on an ad valorem type of cost. In other words, the higher the market for the product, the higher the stumpage fee that we would be taking into our provincial coffers.

3:31

MR. CHADI: Mr. Minister, the Pine Ridge reforestation appears to have an cumulative amount expended from this fund as at March 31, 1993, of \$23 million according to the annual report of the heritage savings trust fund. It looks like in 1992-93 we're talking another \$700,000. My question is: has the Pine Ridge nursery been funded from anywhere else other than the Alberta heritage savings trust fund?

[Mr. Dunford in the Chair]

MR. EVANS: In terms of capital it's primarily from the heritage savings trust fund, Sine. Operational costs, you know, the costs back to industry, are incremental costs that are covered, but primarily the capital costs have been through the heritage savings trust fund.

MR. CHADI: It's been functioning now for about -- what? -- eight, nine years. It seems that if we've expended \$23 million, it would be to the tune of somewhere in the range of, say, 2 and a half million a year over the course of nine years. It's substantially less this year of course, 1992-93. It would appear, though, that this is coming to an end that we are going into in terms of cost recovery for the product that it produces. You indicated an end in other categories, particularly with land reclamation and water management systems, in '93-94 for land reclamation and '94-95 fiscal year for the other one. When do you see an end for this one?

MR. EVANS: I thought I mentioned that in my opening comments. Just as you said, \$703,000 for '92-93 was essentially completing that expansion, Sine. So we're at an end. There's no anticipated continuation of upgrading. That was really, again, a retrofit and an expansion to move from a capacity of about 24 and a half million seedlings up to 33 and a half million seedlings this year.

MR. CHADI: Okay. Thank you.

I have further questions, Mr. Chairman, but they don't relate to the Pine Ridge nursery. Does it much matter?

MR. CHAIRMAN: Well, you can use one, or you can pass.

MR. CHADI: I'll wait. I'll pass then.

MR. CHAIRMAN: Okay.
Ed Stelmach.

MR. STELMACH: Thank you, Mr. Chairman. Given that the trend is to reduce the budgets for the land reclamation component of the capital projects division, how are policies changing to reflect this direction that we're taking? Let's say, for instance, gravel pit operators in municipalities.

MR. EVANS: Well, again, as Larry Brocke mentioned earlier, Ed, a lot of the costs of reclamation were because we didn't have much of a regulated industry in the past. Now we do have a regulated situation for all gravel pits over five acres. I guess there's still the possibility of some kind of regulation for under five acres as well in extreme circumstances. Clearly the majority of gravel pits are now regulated, and we don't anticipate that we will be having any of the same problems that had occurred in the past.

MR. MELNYCHUK: The operator must do the reclamation.

MR. EVANS: Yeah, that's right. Peter was just mentioning that of course under the regulatory system the cost is to the operator to reclaim those sites.

MR. STELMACH: Mr. Chairman, to the minister: does the operator have to put up some sort of collateral well in advance of disturbing the area?

MR. EVANS: Before they get the right to go subsurface or to disturb the surface, they have to file a reclamation plan and either bond -- the normal course is a bond, not actual cash -- a letter of credit, or something of that nature to show that there is some callback on them if they do not meet the reclamation plan.

MR. STELMACH: The final question is: how soon are we going to develop a policy to deal with those operators that open pits that are less than five acres? I'm specifically referring to the fellow that will take a cat and clear off a quarter of an acre, half an acre, excavate some gravel and just move the dirt back in place, mix up the clay. Is there some law that we can use or regulation that we can get at them?

MR. EVANS: Well, municipalities have the opportunity to control that by bylaw, and I know their inclination is that they'd like to keep that authority and not have the province involved in it. I heard that clearly from the MDs and Cs this year, and I think the REDA people have exactly the same kind of position on this. Larry, anything that you'd like to add to that?

MR. BROCKE: Sure. A couple of things I would like to add, Mr. Chairman, for the whole line of questioning, I think. I'm going back to the original on the approval process itself. As the minister indicated, they have to submit with their application for approval a complete reclamation plan that determines how they are going to reclaim the pit at the end. I think the biggest change with the new Act compared to the old Act is in two ways: along with the duty to reclaim, before they get an approval now, they have to submit their

security, which is different from the past; secondly, with respect to security, that is now being levied at the cost of reclamation rather than the old sort of nominal fee of \$250 an acre. So there's quite a bit of change to get at it.

The ones under five acres -- you always invite this dilemma when you put an exception into a regulation. It gives them a way to go to 4.9 acres and then move over to the next one, which is always kind of handy. We have been working very diligently with the Sand and Gravel Association in the province, and they have the same concern that you have: what do you do with these people? They would like to see it under control. We're devising what we're calling so far environmental protection guidelines that these people that aren't subject to getting an approval would be expected to operate under. The large operators are attempting to convince us that they will watch these little guys. Perhaps our best police force is the large operators watching the little operators, which is happening regularly now.

MR. WHITE: Mr. Minister, I noticed on the map that you sent out that there are a number of projects that we all know were put into place for some power supply in central and southern Alberta in the way of the Sheerness power plant, a number of these projects, the blow down canal. I think there are some others that are mentioned here. I think there were a couple of others that were put into place, and I don't know whether they were in fact paid for through the heritage fund or not. The question is this: did TransAlta cost share in any or all of these projects and, if so, to what extent?

MR. EVANS: I'll ask Jake to deal with that. Before I put it over to him, clearly Sheerness was a cost in the past. It just wasn't in this '92-93 year.

Jake.

MR. THIESSEN: Yes. Specifically with that project, in fact, the power company owns the pipeline. The heritage trust fund paid a part of the cost to upgrade and actually put in a larger sized pipeline than what they would have required. The thinking there was to make sure there was water available for stock watering, domestic purposes, and irrigation along the way.

The blow down canal, then, is totally funded from the heritage fund. This is excess water after it's done the job of the cooling plant. The quality of water eventually becomes not fit for use there anymore, but then it's still perfectly acceptable for other uses. So the blow down canal was totally funded from the heritage savings trust fund.

There are a number of cost-sharing situations. For example, in the district-owned canals we paid for the main canal work. The district paid for the turnouts and so on, and they also supplied all the right of way for those canals.

MR. WHITE: Then to your knowledge there isn't any subsidization of generation of power? It was a cost share in order to facilitate a plan that you may or may not have been in place at the time to service some area.

3:41

MR. THIESSEN: No. It was simply an upsizing of the pipeline from the Red Deer River to the Sheerness power plant, but the reason for that was so that there'd be additional water for other uses. We did not subsidize the water supply to the power plant.

MR. WHITE: Has there been subsequent use of the upgrading in the size of the capacity of the cooling pond then? Has it been used for other purposes?

MR. THIESSEN: Oh, yes, the pipeline is being used to supply water to farmers along the way, and the blow down canal is supplying irrigation and stock watering all the way down.

MR. WHITE: Are those all cost recoverable, or are they not?

MR. THIESSEN: Well, to a certain extent, yes, Mr. Chairman. The farmers pay for the irrigation water, but they don't pay the full cost. They pay the same as the nearest irrigation district. So it is subsidized to some extent, and that is the cost of pumping the water up through the system.

MR. CHAIRMAN: Okay. Thanks.

Bonnie Laing.

MRS. LAING: Thank you, Mr. Chairman. I wanted to follow a bit on the comments that Ed Stelmach had about the gravel pit reclamation. In Calgary we have an owner who is right in the middle of the city now and has a long-term permit, and there's always the argument: is it the city or is it the province that is responsible for regulating the operation? I believe the city took him to court and lost, so I understand that he's still under the old environmental Act. Is there any way of reconciling that and bringing him into the new world? What can be done about that? Anything?

MR. CHAIRMAN: Excuse me, Bonnie. Is that something that was done under this land reclamation?

MRS. LAING: Well, we're talking about land reclamation in the gravel pit. I'm just wondering if the changes in regulations would apply now to this old operation which has been going for about 40 years.

MR. EVANS: Well, the intention, Bonnie, was not that the Act would be retroactive but rather that it would operate from the time of its passage and, more specifically, once the regulations were in place this September. However, with new applications coming in, they would clearly be under the control of the new regime that we have. That problem in Calgary is, as you pointed out, an historic problem, and I think we're just going to have to deal with it fairly carefully. I know Larry is well aware of it. He may have some additional information.

MR. BROCKE: Just very quickly to add to that. The minister is right. When he renews his approval from the department, it will be under the new Act and the new regulations. So we've been watching that one fairly carefully.

MRS. LAING: One other question I had: in the case of a long-term permit, such as this fellow has, are they allowed or should they be required to do ongoing reclamation as they move down further in their process?

MR. BROCKE: Yes, they are. I think maybe there's some confusion here. The long-term permit that they had is the development permit from the municipality. As far as we're concerned, it's development and reclamation approval, which has only been in place since the time that the old legislation came in, which would have been in about 1978 for gravel pits. So that's the short term of it from the department's perspective. The long-term permit was the old development permit, and that's what they went to court about.

MRS. LAING: Who sets the standard for the reclamation? Does the department? As you said, the owner has to pay -- right? -- for the reclamation. Well, who sets the standard that they have to bring this property back to?

MR. EVANS: We have standards that are under our regulations, and we have some policy matters as well. I think in terms of reclamation of gravel pits, for example, most of it if not all of it is under regulation, because it's very important to have something specific that the industry can look to in terms of estimating the cost of reclamation and then doing it on an ongoing basis as they proceed through their business.

MR. MITCHELL: In answer to my question about an industry association or syndication purchasing Pine Ridge, the minister said that the sawmills are in good shape and the pulp mills aren't. We have, I think, \$275 million in various pulp mill enterprises. I wonder whether the minister could indicate how secure that is.

MR. EVANS: Well, I think it is secure in the sense, Grant, that many of these companies are diversified companies, and they're operating both in the softwood and hardwood side. Economists, the last time I've been able to check, are projecting an upswing in pulp prices by the third to the fourth quarter of 1994, and companies that we have operating in Alberta are looking towards that. They are being patient in the meantime. Where they do have a diversified operation they are taking advantage of the sawlog prices to offset the difficulties they're having on the pulp side.

A diversified portfolio certainly is a necessity in today's international, global, market. In fact, even when you look at the softwood side, the sawlog side, economists are saying that we are going to have a great number of cycles up and down really even in the short term on that sawlog side. So, you know, \$700 may not be the price six months from now, but it could be again nine months from now, and really that peak and valley syndrome is likely to continue over the next two or three years.

MR. CHAIRMAN: Now, the chair is assuming that this line of questioning is in the sense of who might come forward if there were an initiative to privatize Pine Ridge. Are those the answers which we're dealing with here?

MR. EVANS: You'll have to ask the questioner that, Mr. Chairman. I wouldn't be so bold as to try to presume what's in his mind.

MR. MITCHELL: I'm looking at page 29 of the annual report of the heritage savings trust fund where it indicates that there's about \$275 million in Crestbrook, Kanzaki Paper, MC Forest, and Millar Western. I've just been told by the minister that, you know, the pulp side isn't doing all that well. I'm saying that my constituents would be interested in knowing: does this have any implications for whether or not the minister would be considering taking more heritage savings trust fund money and supporting a project like GAP?

MR. EVANS: Well, you know, where we go with heritage savings trust fund money in the future I think will be due partially to the recommendations that come from here. The only forestry project, as I mentioned, that we're talking about now is really the finishing touches on the Pine Ridge facility, Grant. I'm not coming forward at this time with any kind of a request. The GAP situation, the Grande Alberta Paper proposal, has a long way to go, as you know, probably upwards of 18 months to two years of review through the Natural Resources Conservation Board. Once that process is

finished and either an approval is granted outright, a conditional approval, or a refusal, then we'll look at that situation. Again, there is an expectation that pulp prices will be on the rise by the third to fourth quarter of next year, and we will still have a long way to go before the approval of GAP occurs by that time next year.

MR. MITCHELL: I wonder whether the minister could give us an indication as to what the total earnings are that we are being paid on that \$275 million by these firms and whether in addition these firms have paid corporate income taxes to Alberta on their operations funded by the Alberta government.

MR. EVANS: Well, of course, that's outside of the questions that I was anticipating today for these three projects, but I undertake to work with my staff to try to provide you with as many answers as we have. Certainly.

MR. CHAIRMAN: Okay. Thank you.
Don Massey.

DR. MASSEY: Thanks, Mr. Chairman. Mr. Minister, the previous environment minister indicated that there is a need for long-term data collection on the research projects that already have been initiated under the reclamation program. Can you help me with some sort of an explanation? I can't quite understand what he was referring to in terms of need for long-term data collection.

3:51

MR. EVANS: I think Larry was probably here when the Premier made those statements. Well, he's shaking his head that he wasn't. Again, I can certainly undertake to try to provide you that information, Don. I don't have it off the top of my head. I'm sorry.
Larry, anything to add?

MR. BROCKE: The only thing I can think of that he might have been referring to would be the continued monitoring of the research projects that have been initiated, and that is ongoing and has been. We're hoping in the winddown here in the next few months that the industries we have worked co-operatively with will take over some of the long-term monitoring so that we don't lose the benefits of the money that has been expended on some of these research projects that have been put in place.

MR. MELNYCHUK: I could just maybe add to that. As I recall, the success of some of that research and indeed the success of some of the actual reclamation takes a long time to prove up. I think the former minister was referring to the need to continue to monitor and measure that to ensure that we are making progress and that the research that was done was being applied properly and that we were getting the results that we should be getting.

DR. MASSEY: Was he indicating that that's not being done? From his comments, he said that that should be done.

MR. MELNYCHUK: I think the intent there was that it was an ongoing process that we would continue to monitor.

MR. BROCKE: Yes, it's always been done. Now that we were coming to the end, I think maybe he was looking ahead in saying that when we do come to the end, we will now work with industry to see that it can continue to happen. As Peter was saying, the results aren't long-term enough yet to be confirming.

MR. MELNYCHUK: The program, you see, was scheduled to end, so there was a need to come up with some kind of an arrangement to ensure that that monitoring continued.

DR. MASSEY: Thanks for the explanation.

MR. CHAIRMAN: All right.
Sine Chadi.

MR. CHADI: Thank you, Mr. Chairman. Mr. Minister, you indicated earlier in responding to one of the questions in the category of water management systems that the Carseland-Bow River headworks project had a total budget of \$80 million and that it's probably half completed at this point in time. Therefore, another \$40 million is required for its completion. In the category it would appear, of course, as obviously the biggest category: total expenditures to March 31, '93, of \$526 million. Is there then sufficient funds that will have to be budgeted in 1994-95 to complete this, or is it going to end with some of this project not completed?

MR. EVANS: Sine, I believe the \$80 million figure was from Jake Thiessen, and he was talking about both Carseland and the BRID, the Bow River irrigation district. We do not have enough money in the budget to complete that project by 1994-95. We do not, just as we do not have enough money put aside for the St. Mary spillway. Those are the two major ones that are going to require funding. So we will be looking at continuing the project hopefully beyond the year 1994-95, and we'll be coming forward with that at the appropriate time.

MR. CHADI: Is there any indication today or in the near future as to what the numbers will be that you'll be looking for in terms of a budget to complete past 1994-95? Is there any indication at all as to how much is remaining to complete it?

MR. EVANS: Well, you know, we're going through this three-year business plan now trying to get a sense of what moneys are going to be available, where they're going to be coming from. It's a net budgeting process, so you take into account all these projects as well as our GRF. We're going to come out with that estimate just as quickly as we can, Sine, because it's very necessary to our planning process to get that information out and to seek an approval so that we can move forward in future years. We'll use what's left of the moneys to '94-95 to deal with the demand side, again much like the reclamation moneys, the human health and safety side, but there are some pretty big dollars here that are required.

Jake might have something to supplement that.

MR. THIESSEN: Well, I don't know if I can clarify it further. The earlier question was: which projects will not be completed when this program runs out? I thought I responded to that by saying that the Carseland-Bow River headworks project will not be completed, the St. Mary spillway will not be completed, and then there are two other projects within irrigation districts where they're seeking funding but there is no approval of that funding yet. So in terms of uncompleted works we're really looking at four projects and a very preliminary estimate at this time. There is absolutely no commitment to completing all of those, even though there is a need to do some of this work. Not all of this was foreseen as being necessary when the program started 13 years ago.

MR. CHADI: Are you suggesting, then, that there are some works or projects within the water management systems that are not needed? Even though they're not completed, can we just abandon

them now and forget it and say, "We've lost that money; let's just leave it alone now and go on"?

MR. THIESSEN: No, that's not what I'm saying at all.

MR. EVANS: In point of fact, Sine, the upgrading of existing canals and any new canal work under the existing program that comes within '94-95 is well over 90 percent complete. That has been done so that we can deal with those ongoing problems. The two that Jake has referred to are ones that really were not anticipated as being as problematic as they've become and were not put into the funding formula when the current program was started.

MR. CHAIRMAN: That was for clarification, so your supplementary is going to carry on from there then; is it?

MR. CHADI: I just have one last supplementary.

MR. CHAIRMAN: How many was that anyway?

AN HON. MEMBER: What a chairman.

MR. CHADI: What a chairman, yes.

With respect to the projects that are completed and particularly Carseland-Bow River, then, which appears to be one of the larger projects, what is the procedure at that point in time? Even though you say 1994-95 is the fiscal year that we will end this program, what are the criteria that you would use? Would there be a problem for you to come back to this committee or back to the heritage savings trust fund and ask for further funds from within the fund itself?

MR. EVANS: That's precisely what we anticipate doing.

MR. WHITE: Mr. Chairman, I listened with great interest to a very great man in this province, perhaps almost the original environmentalist in this province, Grant MacEwan, at the opening of his college. He was saying that he felt that one of the biggest renewable resource areas that we have in this province that must start to be examined now with the network of irrigation systems that we have in place is water, the export of water, sometime in the way distant future. His premise was simply this: the need will get so great elsewhere that we'll be duty bound as humans to provide that and that we should be ready and able to provide that service and to know what the current price is. Upon subsequent questioning, he said that in order to do that he thought it would be wise to have the network that is managed partly through the department and partly through the irrigation councils networked under the department, because the department covers it all, such that it can be put into one single system and at any point in time one can say: the capital costs are this, and therefore the recovery cost is this. Has your department globally looked at that to some distant future?

4:01

MR. EVANS: Well, Lance, like you, I have great respect for Dr. MacEwan. Grant MacEwan is certainly a heritage item for the province of Alberta in terms of the contribution he's made, and I'd take anything that he says very seriously. At the same time, it must be recognized that our province has always said that our water is not for sale. You know, we realize under the free trade agreement that bottled water can move across our borders to the south, but it is not anticipated that that would change. One of the main reasons for that is that we have substantial domestic needs for our water both in terms of the north where the water is fairly buoyant, to use that

terminology, in terms of volumes and in the south. We also have to recognize our responsibilities to our neighbours to the east. We have these apportionment agreements, that I think Jake was referring to earlier. About 50 percent of the water that goes across Alberta is subject to apportionment in a quality sense as well, high quality water to be apportioned to Saskatchewan, and in turn they have an agreement with Manitoba. So I don't anticipate that we are going to be looking at selling our water to the south. It's clearly been and will remain the position of our government that our needs are here in Alberta and, with respect to beyond our border, with both our provincial and territorial partners elsewhere in Canada.

MR. WHITE: Motion to adjourn.

MR. CHAIRMAN: Just a couple of things then. I'd like to thank the minister on behalf of the committee for your candidness and your openness today. I would also, then, as the chairman, like to extend a merry Christmas to certainly you and your staff. I'd also like to extend a very merry Christmas to the members of this committee and a happy new year and look forward to seeing you on January 18.

So we have a motion for adjournment. All in favour?

[The committee adjourned at 4:03 p.m.]

