

[Chairman: Mr. Oldring]

[10 a.m.]

MR. CHAIRMAN: Good morning, ladies and gentlemen. I'd like to call the meeting to order. I'm sure everybody will be as attentive this morning to the Minister of the Environment as they were to the hockey scores last night. Mr. Minister, it is a pleasure for me to welcome back the former chairman of this committee in his new capacity as Minister of the Environment.

If members want to turn to pages 27 and 28 of the annual report, you'll note that there are four projects under our capital projects division that the minister will be talking to us about this morning: irrigation headworks and main irrigation systems improvement, Paddle River basin development, Lesser Slave Lake outlet, and land reclamation. On that note, Mr. Minister, if you'd like to introduce the guests you have with you this morning. The minister has agreed to give us an overview of the irrigation headworks and main irrigation systems improvement in particular. We have a substantial investment in that particular project, and I welcome the minister's remarks as they pertain to it.

MR. KOWALSKI: Thank you very much, Mr. Chairman. Good morning, ladies and gentlemen. I really feel kind of delighted today. This is my first opportunity to appear before the Alberta Heritage Savings Trust Fund committee in a capacity different from the one I had in the last number of years. It was with some degree of pride that I served as chairman of this special standing committee. First of all, may I congratulate yourself and all members of the committee for being elected to this particular committee. I sincerely hope that over the last number of weeks and months you've had a very enjoyable and worthwhile experience as you subpoena and interview witnesses before you.

The 1985-86 annual report of the Alberta Heritage Savings Trust Fund is for the 10th year of the fund. As you correctly pointed out, on pages 26, 27, and 28 of the report there are a number of projects that come under the purview of the Minister of the Environment. You'll see the dollar figure for investment in 1985-86 and the investment at March 31, 1986, for irrigation headworks and main irrigation systems

improvement. You'll see the same for the Paddle River basin development and for land reclamation. The Lesser Slave Lake outlet project was completed several years ago, and the figure you see in terms of investment at March 31, 1986, is the figure that's been carried through in the annual report. In essence, that project was completed in 1983-84, and there were no expenditure levels during the last fiscal year, the year under review.

I would like to introduce the three gentlemen who are with me this morning. To my right is Mr. Peter Melnychuk, assistant deputy minister of water resources management services; to my left is Mr. Ken Smith, assistant deputy minister of environmental evaluation services; and off in the corner, because he's used to riding at the back of the bus, is my office manager/executive assistant, Mr. Tom Thackeray, who has served a variety of ministers of the Environment in a number of capacities.

Mr. Chairman, the report itself looks at investment at March 31, 1986, and we're now in the month of November. I recall in previous years that oftentimes we had ministers come forward and requests were made to be as current and up to date with the information as they possibly could. What I would like to do this morning with your concurrence and indulgence is give you a status report on the projects in question to October 31, 1986. I suppose that basically we should be talking only about March here, but I'm prepared to go to October 31, 1986, so we're as current as possible.

We've got a massive investment, particularly in the irrigation headworks and main irrigation systems improvement, and I would like to give you a very specific overview of the projects that are under way with respect to this major program and to talk to you about where we are going to conclude the program by the year 1995. We have a schematic for you, and as I go through this, I'm going to ask Mr. Melnychuk to point out to you specifically where these projects are.

You will recall that in 1980 a ministerial statement was made by the then Minister of the Environment, Mr. Jack Cookson, and the then Minister of Agriculture, Mr. Dallas Schmidt, an announcement called water resources and irrigation development in southern Alberta. One of the statements made in that ministerial statement was the following:

Starting this year, [that is 1980] the overall program will involve an expenditure of \$334.0 million, with \$234.0 million allocated to Environment for the development of major water conveyance and storage systems and \$100.0 million allocated to Agriculture to assist irrigation districts in the rehabilitation and upgrading of their water distribution systems...

That statement was made in 1980 and talked about the environmental component of \$234 million. On page 27 of the report, you will note that the investment at March 31, 1986, was \$255 million, and we're talking about a 15-year program.

Work has been initiated on all the components of the improvement program that was announced in 1980, and that ministerial statement of 1980 outlined them. The total expenditure to October 31, 1986, amounts to approximately \$287.2 million, including the \$9.5 million that was spent prior to 1980. The forecast of expenditure for the 1986-87 fiscal year is approximately \$60 million. The total expenditure during the seven months of the 1986-87 fiscal year has been \$31.8 million, and this includes the \$1 million grant transfer to the Alberta department of economic development for the fibreglass canal lining research we talked about earlier this year. I'm going to give you a graph a little later when I conclude this overview that will give you all these figures.

Rehabilitation and improvement work on the Lethbridge Northern Irrigation District and the St. Mary River Irrigation District main canal systems is progressing very well. Approximately 60 percent of the canal lengths of these two projects have now been completed. Construction of the Forty Mile Coulee reservoir was initiated in 1985-86 and is scheduled for completion by 1988-89. Implementation of the rehabilitation of the Eastern Irrigation District main canal and any major reconstruction work on other provincial headworks systems cannot be initiated at this time due to annual budgetary constraints, but all components of the program are scheduled for completion by 1995 in accordance with the announcement made in 1980.

Specifically on some of these projects. Construction of the main canal reaches of the Lethbridge Northern Irrigation District headworks system: there are a number of them,

identified as reaches 1, 2A, 3A, 6, 7, and 7B, and 6 and 7A tie-in sections. A total of approximately 22 miles of work was completed by March 31, 1985. The rehabilitation of diversion headworks, replacement of the Oldman River crossing, the Willow Creek flume crossing, and the two siphons at Rocky and Keenex coulees have also been completed. All the work within the Peigan Reserve was completed by the spring of 1984. Construction of all the canal reaches downstream from Rocky Coulee was completed and functional by the spring of 1985 for a new capacity of 1,500 cubic feet per second.

Construction of reach 3B is in progress and is scheduled for completion by the spring of 1987. The contract for reach 4 has been awarded to Caribou Construction Ltd. and Estabrook Ltd. of Grimshaw, Alberta, and the construction work on this reach has been started and is scheduled for completion by the spring of 1988.

Land assembly for reach 5 has been initiated and the contract for construction is scheduled for tender in June of 1987. The construction work on the Keho Lake east dikes, the outlet works, and peripheral roads is complete. Keho Lake reservoir was filled up to the new fsl by the end of May, and work associated with the relocation of Keho Lake park and golf course is in progress and is scheduled for completion by the end of this fiscal year. The total expenditure to October 31, 1986, is \$86.2 million on the Lethbridge Northern Irrigation District main canal work and \$11.2 million on the Keho Lake reservoir project. The main canal extends from the Oldman River and the Peigan Reserve to Keho Lake, a distance of 50 miles.

The second major project is the St. Mary River Irrigation District main canal rehabilitation and enlargement project. This extends from Bridge reservoir to Murray reservoir, a total length of 190 miles. Construction work on this project was initiated in 1981-82, and the rehabilitation of approximately 102 miles was completed by March 31, 1986. The construction work on two more reaches of canal scheduled for this fiscal year has been initiated. Once the work on these two reaches is complete, the main canal from Stafford reservoir to Soldar reservoir will be functional for the new enlarged capacity.

The replacement of the Forty Mile Coulee

siphon, which was originally tied to the Forty Mile Coulee reservoir project, was completed during the 1984-85 fiscal year. The total expenditure on this project to October 31, 1986, amounted to approximately \$99.3 million. Final completion of the project initially scheduled for the 1989-90 fiscal year will now be delayed for one or two years due to the annual budgetary constraints.

The third project is the Forty Mile Coulee reservoir. It's a 70,000 acre-feet off-stream storage reservoir in the St. Mary River Irrigation District. The engineering design and the land assembly for this project was completed in the 1983-84 fiscal year. Construction work on this project was initiated in 1985 and is progressing well. The west and east dams have been completed up to the contracted elevation for this year. The structural work on the pump station is approximately 75 percent complete. The inlet structure is approximately 90 percent complete. The excavation of the outlet channel has also been completed. The inlet canal is 75 percent complete, and the construction of the check-drop structure has been completed. The total expenditure for the Forty Mile Coulee reservoir to October 31, 1986, is \$31 million. Completion of this project is scheduled for fiscal 1988-89.

Another one of the major projects is the Badger Lake reservoir. This internal storage reservoir project within the Bow River Irrigation District was completed in fiscal 1984-85. The total expenditure for the project, including the costs of engineering and land acquisition, amounted to approximately \$13.2 million. The reservoir has a capacity of 42,000 acre-feet.

Another project under way is the Crawling Valley reservoir project. Construction of this internal storage reservoir project within the Eastern Irrigation District was substantially completed in 1984-85. A major construction claim by the contractor has been settled. Most of the remedial and cleanup work has been completed, and the total expenditure to October 31, 1986, is \$6.4 million. The capacity of this storage reservoir is 90,000 acre-feet.

There were some projects in the Special Areas as well. The Deadfish diversion project, which consists of a pump house, pipeline, and a canal to divert water from the Red Deer River into Deadfish Creek, was essentially completed

in 1983-84. Settlement of some outstanding land compensation issues and construction of some minor works have been carried over to the 1986-87 fiscal year. The total expenditure for the project to October 31, 1986, is approximately \$7.4 million.

The Sheerness water supply project was essentially completed in 1984-85. The pipeline from the Red Deer River to the Sheerness power plant was constructed by Alberta Power and TransAlta Utilities. Alberta Environment paid for increasing the size of the pipeline to ensure an increase in guaranteed water supply. The construction of the 14-mile-long concrete lined canal to the Carolside reservoir blowdown canal was essentially completed in the 1984-85 fiscal year. Outstanding land settlements and completion of some remedial works have been carried over to this fiscal year. The total project expenditure to October 31, 1986, is approximately \$9.4 million.

Major work on the rehabilitation of other headworks systems is generally scheduled for the latter years of the program implementation period. These include, number one, the Bow River headworks from Carseland weir to Travers and Little Bow reservoirs; secondly, the St. Mary headworks from Waterton reservoir to Milk River Ridge reservoir; thirdly, the Western Irrigation District headworks from the weir in Calgary to Chestermere Lake; and fourthly, the Mountain View-Leavitt-Aetna headworks from the Belly River diversion to Payne Lake.

MR. PAYNE: A very fine body of water.

MR. KOWALSKI: Minor but urgently needed rehabilitation is being undertaken in other headworks projects as the need arises. On the St. Mary headworks system, the preparation of the contract package for the Pinepound Coulee site and replacement structure is in progress. The contract for this structure is scheduled for tendering early in 1987. On the Carseland-Bow system, the construction on the replacement of the West Arrowwood siphon has been deferred until agreement is reached with the Blackfoot Band. On the Western Irrigation District main canal, work initiated in 1985-86 on the replacement of some existing road bridges and the implementation of minor remedial works has been completed. Major rehabilitation work on this canal was delayed pending a decision on the canal design capacity. Total expenditure to

October 31, 1986, on what we've classified as other provincial headworks systems is approximately \$12.5 million.

With respect to the United Irrigation District headworks system, the UID main conveyance system extends from the diversion structure on the Belly River to Cochrane Lake. We're contemplating the takeover of the headworks system, and the district has obtained easements for most of the land. Once the transfer has been completed, Alberta Environment is planning to undertake rehabilitation and enlargement of this system. A preliminary study has been initiated in order to determine the scope of the rehabilitation work, possible supply alternatives, and the associated costs.

With respect to the Ross Creek Irrigation District headworks system, this irrigation main canal system extends from the diversion structure in Gros Ventre Creek to Cabin Lake, and the intent is to take over this headworks system. The district has secured all the land except for one parcel, and the scope of rehabilitation work required has yet to be determined.

The last one I'd like to highlight this morning is the Eastern Irrigation District main canal. Within the program announced in 1980 we anticipate addressing that particular project, probably in the 1988-89 fiscal year.

What I'd like to do is circulate for you a financial update on all these projects. There are additional copies for members of the media and anyone else who would like one. The document I've provided for you this morning looks at the cash flow requirements based on 1986-87 Canadian dollars, and it shows the irrigation headworks and main irrigation systems improvement program status at October 31, 1986. I initiated the discussion this morning by pointing out to you that in 1980 the announcement was made that basically \$234 million was to be addressed to this program that would go from 1980 to 1995. As well, in looking at page 27 of the annual report, you'll note that the investment at March 31, 1986, was \$255 million. If you look at the first line, the cost of these projects I talked about amounted to \$277.7 million to October 31, 1986, and there were a few dollars expended prior to 1980. So we have a total program cost to March 31, 1986, of \$287.2 million. The next graph shows you the number of dollars expended in 1986-87 to October 31, 1986. The next line over talks

about the balances to be expended in the current fiscal year to March 31, 1987. In the next columns over you see our expenditure plan for the fiscal years 1987-88, '88-89, and through to complete the project in 1994-95.

To October 31, 1986, we have expended \$287.2 million. You'll note that on the second line from the right on the right-hand side we have a figure that talks about the balance total to complete, a figure of \$267.8 million. So we're talking about a total estimated cost for this particular project, the irrigation headworks and main irrigation systems improvement program, to be completed in 1995, of \$555 million. But please note that the projection in terms of the balance to complete is based on the value of 1986-87 Canadian dollars. We don't know what will happen over the next six or seven years, so the raw figure, the figure that might be used by our successors nine years from now, may be very different. They may say, "Gee whiz, this Minister of the Environment on this particular day in November 1986 said it was going to cost \$555 million and now it's \$500 million or \$700 million," depending on that.

I guess the point I want to make is that this is a very, very major program. It's a program that has to be of interest to all MLAs in the province of Alberta from the north to the extreme south and from the west to the east -- a major concern. On Monday next week I will be in Lethbridge. I will be speaking to all the irrigation districts, and I'm going to talk about this. I do not believe that we've made public this total dollar figure we're talking about here this morning. I want to make it public because I want everybody to understand the magnitude of the program and its importance in terms of water management, water service, and agricultural diversion and infrastructure for many, many municipalities in the southern part of the province of Alberta.

The message I will be giving the irrigation districts on Monday is that I think they have to get out and start telling the people of Alberta what it is, how important this program is. We've also initiated a special project within Alberta Environment, in association with ACCESS television: a special television program that will hopefully be aired for all the people of Alberta, pointing out how important these projects are to the objectives we have in ensuring a successful agricultural livelihood in the southern part of the province and the like.

Mr. Chairman, that is one of the projects that come under my responsibility and jurisdiction. I'll be much, much briefer on the other two, not because they are of lesser importance; it's just that they are of lesser magnitude.

The second project I'd like to comment on is the land reclamation project. We should have circulated for each of the members of the committee an envelope that shows you the expenditures in land reclamation projects in your constituencies in the current fiscal year. Tom, have we circulated them?

MR. THACKERAY: They'll be handed out here.

MR. KOWALSKI: Have we got them?

MR. THACKERAY: No. I'll go and get them.

MR. KOWALSKI: Basically, it will just be a sheet of paper indicating to you as a Member of the Legislative Assembly the level of expenditure under this program in your constituency in this fiscal year. In the next number of days I'll be circulating to all MLAs in the province of Alberta a map with an attachment that shows all the expenditures in your constituency under the land reclamation program from the beginning of the program to the present spot on the particular program.

This is not a high-profile program. Essentially it is exactly as the principle objective of the project outlined in the report:

... to reclaim land disturbed by industrial and commercial activities and to restore the land to its level of capability prior to disturbance. Work under this project has focussed primarily on abandoned garbage dumps, sewage lagoons, gravel pits and mine sites throughout Alberta.

In addition to this reclamation, there are also some research dollars attached within that figure that we have allocated for last year and this year.

There are some really innovative little projects being done. Most of the projects tend to be in the neighbourhood of approximately \$8,000 to \$10,000. A lot of innovation goes with it, including opportunities for people to take an old gravel pit that may not be very large and turn it into a trout pond and that sort of thing. Should there be additional interest in that and should individuals want to raise some

questions about it, I'll be happy to give you some more examples.

It's a program that is destined to be concluded by March 31, 1988, and it's a program that I as Minister of the Environment feel is very important. Frankly, I do not believe that our investment in this particular project under the Alberta Heritage Savings Trust Fund has been enough. It's a project about which I would like to leave a message with you this morning. I sincerely hope that as you start discussing recommendations, if you haven't already, you would not overlook this particular project. There are literally thousands of little projects in and around Alberta where the landscape has been scarred, but with a few dollars — a very, very modest amount of money — and in fact even some initiatives from local volunteer groups and service clubs, they can turn an old gravel dump into an attractive little trout pond for children and whoever else would want to use it. It's not a big bang program, but it's an important one from an environmental point of view, at least from an environmental beautification and aesthetic point of view.

The third project is the Paddle River basin development project. That project is essentially concluded. You'll see the amount of investment at March 31, 1986, at \$41 million. There was an investment of \$1 million in 1985-86. In the current fiscal year we have a projection within the estimates of the Alberta Heritage Savings Trust Fund of approximately \$1.050 million. Part of that investment of \$1.050 million for the current fiscal year was to replace a trestle. However, the positive experience in the flooding of the Pembina River this year — and there was a positive experience in the massive flooding that occurred in July — showed us that the Paddle River dam worked, and worked very, very well. In fact, within the next couple of months I'm going to release some additional information showing you exactly how successful the dam was from a scientific point of view. If the Paddle River dam had not been in place, we anticipate that upwards of 20,000 to 25,000 acres of land could have been inundated during the massive flood. Because of the existence of the Paddle River dam, none of those acres was flooded. I think that investment of \$41 million essentially paid for itself in the first year.

There was a trestle that we had programmed for redevelopment during the current fiscal

year, 1986-87, along the Paddle River several miles east of Barrhead and several miles west of Manola. In our review and in looking at the success or failure in all the flooding this summer, in my view the dam worked so well the trestle no longer needs to be replaced. So the \$1.050 million we had planned for expenditure on the Paddle River basin development in fiscal 1986-87 is an amount we will not have to use, and in fact there will be some dollars returned to the Alberta Heritage Savings Trust Fund. I've simply cancelled the proposed work.

Mr. Chairman, I would be delighted to attempt to respond to any questions that would be forthcoming from my colleagues on the committee. I will ask Mr. Melnychuk and Mr. Smith, both individuals I have great confidence in, to assist me in dealing with some of the supplemental specifics of the questions. Mr. Melnychuk will assist me with respect to the irrigation headworks and main irrigation systems improvement program and the Paddle River basin development program, and Mr. Smith will assist me with respect to additional information you would require on the land reclamation program.

Thank you.

MR. CHAIRMAN: Thank you very much, Mr. Minister, for a very informative and comprehensive overview of the irrigation headworks and main irrigation systems improvements and for an update on the Paddle River basin. It was interesting to note the savings it has already demonstrated in such a short period of time.

I'd also like to comment briefly on the land reclamation program. Thanks to a very good program, we were able to make an abandoned gravel pit a very integral part of our beautiful Waskasoo Park network in Red Deer.

MR. KOWALSKI: In fact, that's correct, Mr. Chairman. Three abandoned gravel pits were reclaimed for recreation and water breeding facilities as part of Waskasoo Park.

MR. CHAIRMAN: As I said, they play a major role and are a major attraction there as well.

Your review has obviously stimulated some thought amongst the members. I'll point out that 11 members are already on the speakers list to ask questions. We'll begin with the Member for Cypress-Redcliff.

MR. HYLAND: Mr. Minister, your overview cuts out a lot of questions, because you've answered a lot. The first question I have is on the ongoing costs of these upgradings. What is it costing the government for the ongoing cost of these major upgradings in all the irrigation districts?

MR. KOWALSKI: Do you mean dollars in addition to what we've already outlined, Mr. Hyland, on the graph I've given you?

MR. HYLAND: Yes.

MR. KOWALSKI: Part of the program is dealt with by Alberta Agriculture. I'm not sure if the Minister of Agriculture has already been here to talk about the internal distribution systems. [interjection] Oh, he's going to come next week.

MR. HYLAND: Is there any yearly ongoing cost, operating cost, to the government once these projects are completed?

MR. KOWALSKI: Peter, do you want to answer that?

MR. MELNYCHUK: Yes, Mr. Hyland, there is an annual operating and maintenance cost on all the headworks owned by the province and operated by the Department of the Environment. There is a distinction on some of them. For example, the St. Mary main canal is owned and operated by the district. Other reservoirs -- for example, the Waterton and St. Mary and the connecting canal is a provincially owned system, and operation and maintenance is a provincial responsibility. Those funds are part of our General Revenue Fund and do not come out of heritage.

MR. HAWKESWORTH: Are you asking for a dollar figure?

MR. HYLAND: No.

What sort of year was last year for bids on construction? Were we at about our estimates, or are we saving a little money? Are they coming in a little bit lower?

MR. MELNYCHUK: Generally, we would say that the tenders we have received have come in below the so-called engineer's estimate, which

is based on the trends several years prior to that tender. So they would generally be under between 10 and 25 percent.

MR. KOWALSKI: Mr. Hyland, there's no doubt at all about the fact that the marketplace has seen a reduction in costs, at least on anticipated engineering estimates as compared to the reality. However, one other thing has also happened. After we've basically committed to or made announcements to do a particular project, the local irrigation district then comes back and says: "Well, we want to enhance it; we want to extend it. We want to make it more than it really was originally." So on one hand there has been a positive side, in the sense that the dollar figures in the marketplace have been reduced, but on the other hand the local irrigation districts have then come back and requested more.

There is an example on the sheet you have in front of you. When we talked about the Eastern Irrigation District canal, the original estimate was \$6 million worth of work. But over the last number of years with the consultations, requests, impacts, and imploring to go further with it, it now shows an anticipated figure of \$36.3 million.

MR. HYLAND: Thank you. I guess that's the difference in going from a Chev to an Oldsmobile.

MR. KOWALSKI: No, I think it's important to recognize that there is a need and that we're attempting to react to that need; it's not a matter of overbuilding something.

MR. HYLAND: I think it's probably a matter of upgrading it to a standard that will last longer, rather than overbuilding.

Talking about the construction on St. Mary and all the other districts where it's below the headworks, does the government pay the total cost of that construction, including the grading, building, rights-of-way, et cetera? Is part of that cost paid by the district?

MR. MELNYCHUK: In the case of the St. Mary main canal, because it is owned by the district -- and that is one of the main projects in this program; it's approximately 180 miles long -- the district is responsible for all the right-of-way acquisition, and we'll be responsible for all

operation and maintenance when it's completed. In other cases where the government and the department own the main canal, all costs are paid by this program.

MR. KROEGER: Mr. Minister, following the map as you've presented it this morning and given the fact that essentially we're talking about headworks to support irrigation -- and that's what the conversation has been -- could either you or the assistant deputy minister comment on the associated usages? We're talking about municipal use, rec use, and those kinds of things. So much of our recreation is water-based, for example, and we're looking at an area that really didn't have any natural storage. Is there any kind of overview of what impact we get out of this in the way of tourism, recreation, et cetera, in addition to just irrigation?

MR. KOWALSKI: Yes, in addition to irrigation, there is water supplied to some 48 communities. I can't list the 48 communities for you, but I'll ask Peter to give some examples. Fourteen industrial users have been identified. There are 50 developed recreation facilities in irrigation reservoirs, which provide for boating, swimming, water skiing, and fishing, plus a wide range of shoreline activities. Needless to say, there is the aesthetic side as well, with water and a continuous flow and supply of water. Of course, that leads to more attractive, livable farmsteads, with shelterbelts. There are some parts of Alberta where you can go for miles without ever finding a tree. Hopefully we will now see some tree development as well. There are lawns and gardens. All that taken together provides for a better economic base and more important attention to economic activity and livability within the whole area.

That's a very, very general statement. Mr. Melnychuk, perhaps you might want to just highlight some of those communities or industrial users that might be benefitting and perhaps even point them out if you could.

MR. MELNYCHUK: Almost all the towns along the 180-mile St. Mary main canal depend on the irrigation systems for their water supply. Similarly, the towns on the Lethbridge Northern main canal depend on those systems for their water supply. In addition to the points

mentioned by the minister, about 3,000 stock water users depend on irrigation. Also, about 180,000 acres of wetland that support our wildlife resources are created by these irrigation systems and by the return flows from these irrigation systems. All these reservoirs we've talked about here support fisheries, and I believe six or seven provincial parks are located on these water bodies that are provided by the irrigation systems. So these main canals are in actual fact lifelines of water for southern Alberta.

MR. KROEGER: Secondly, Mr. Minister, Calgary as a city isn't clearly identified, but I think we can imagine where it is, and given the comparison between what happens in small-town Alberta and the rural area around it, that economic development flows to those small towns in direct relationship to what happens on that rural land, when you look at that map it surrounds Calgary on two sides. Do you have any feel at all for what the impact of the economic development in rural southern Alberta would be on an urban centre like Calgary? The reason I'm asking about it is that taxpayers across the province are invited to participate. Any comment on the backflow to the urban side from what was going on all around? I know what the impact is on small-town Alberta. How does it relate in relative terms to Calgary, for example?

MR. KOWALSKI: One can only guess, but I think the obvious guess is the conclusion that there has to be a massive impact on the city of Calgary and on the cities of Lethbridge and Medicine Hat as well. Water is vital to agriculture and life in central and southern Alberta. Without water, without the security of knowing that water is going to be available, without the security of knowing that irrigation is a fundamental basis for life in that part of the province of Alberta, quite frankly there is no incentive for people to remain there, because the costs of survival are too high. I can't give you a quantitative figure, but I can give you an example where it doesn't happen the same way.

In talking yesterday to several delegates at the Alberta Association of MDs and Counties convention, a submission was made to me as Minister of the Environment for quite the opposite kind of problem, coming from various

communities in a certain part of northern Alberta where drainage is the problem. They have indicated to me that because of the horrendous costs of ensuring drainage, they have seen people vacate farms because the cost factors of production are so high. They indicated to me that in a number of small towns and communities, improvement districts, and municipal counties, the population has in fact gone down in the last 10 years. They ascribe that to a lack of security for the long term. Of course, they came to me because they argue on the other hand, "Look, you've got a massive provincial government commitment to the program of irrigation headworks and main irrigation systems improvement, and we want the same for our part of Alberta." They were really approaching it from the same point of view. I think it would be an interesting thought to do, and if we had the luxury of allocating some dollars to undertake an economic study, that's something I'd be prepared to take a look at to reflect it.

One of the messages I'll be giving to the irrigation districts on Monday of next week is to point out to them a responsibility they all have to convey to the people of Alberta just how important these projects and programs are.

MR. KROEGER: You've pre-empted my third question. I guess the chairman's going to count it anyway, and I do want to follow up on that. The specifics we have on the map start north of Calgary and move down to Montana. Given that we're talking about heritage trust fund investment here and certainly understanding through the commission that the demand for similar kinds of work in northern Alberta is there, when we address the drainage process in northern Alberta — and I know it's being addressed through the department now and has been over the years — would there be any thought to looking at funding the drainage side, which is equally important in northern Alberta to what we're looking at here on the supply side? Would we be contemplating doing that through heritage trust fund financing, or are we talking essentially about general revenue when we get into that?

MR. KOWALSKI: Mr. Kroeger, I would be delighted to have the ability to make an announcement saying that we're going to create a drainage program, and it really wouldn't make

any difference to me whether it came under the Heritage Savings Trust Fund or the General Revenue Fund. Unfortunately, it seems that on this particular day in November 1986, the main difficulty we as Members of the Legislative Assembly are all going to have is to work out or determine a plan for how we're going to make good these commitments we've already got planned. If what I've been hearing, that our provincial deficit may be as high as \$3 billion in the current fiscal year, and if the price of oil remains at 15 bucks a barrel, I think we've got a more incredible challenge ahead of us, and that's wondering how we're going to make good on the programs we've already got in place without having to defer them or extend their life by a year or two or three. However, if the price of oil were to rise to, say, \$40 a barrel in the next couple of months, I think my comfort level would be very accentuated and I'd be very aggressive about working towards a drainage program. I think it's important. I think it balances economic development for all of the province of Alberta, and I think it would be fair.

MR. KROEGER: Thank you very much.

MR. HAWKESWORTH: Mr. Chairman, thanks to the minister for the information he has provided this morning. This is the first year I've sat on this committee, so it may be a question that has been raised in previous years. I see from the report, under these capital projects division investments, that irrigation is divided between the two departments, Environment and Agriculture. The reasoning behind that escapes me, at least just on the basis of a surface review, as to why that decision was made to split spending between the two departments, although I'm sure there has to be some co-ordination and some relationship between the two departments as far as irrigation goes. I wonder if I could get a few comments from the minister about that relationship. Why is there a division in the spending of the money between the two departments? Maybe he could go into a bit of detail about the joint planning and co-ordination that takes place between the two departments. I'm afraid your map is going to disappear with you so that when the Minister of Agriculture comes and brings his map, I won't know how the two of them fit together. I wonder if you could just take a few minutes to talk about that.

MR. KOWALSKI: Sure. We'd be happy to leave the map. We'll leave it in the hands of the chairman, and if you want to have it when the Minister of Agriculture comes, so be it. We'd be delighted to do that.

You'll note that page 27 of the report talks about irrigation headworks. The definition of a "headwork" is really that reservoir, that facility that would basically store water. It also talks about main irrigation systems improvement. The definition of the word "main" is essentially the major canals and water carriers.

The program that would come under the Minister of Agriculture is identified on page 12 and looks at irrigation rehabilitation and expansion. There are 13 irrigation districts in that part of the province of Alberta, and what they do under that program is receive assistance to help cover the costs of planning, rehabilitating, and expanding their irrigation distribution systems. As indicated a little earlier by Mr. Melnychuk, some of these main ones are capital projects that are retained in the ownership of the province of Alberta. In the other program, essentially title to them remains in the hands of the various irrigation districts.

There is co-ordination between the two departments, and there is good co-ordination among the 13 irrigation districts. They meet periodically. Needless to say, when you're talking about water, if it goes from one jurisdiction to another, the downstream user is as important in terms of the decision-making process as the upstream user. I suppose you consistently have a balance that you have to put in place to ensure that as water flows from the western sector of the province to the eastern side of the province and as it goes from one irrigation district to another — there will always be a pressure point and the irrigation district on the western side saying, "Look, we want to expand our irrigation district; we want to take more water." That has an impact on the downstream user. So there has to be co-ordination. Otherwise, you are going to get a range war that existed in some parts of the world 100 years ago, where the fellow who's got the land closest to the source is the one who will have the reservoir or dam on it and insist that he's going to use it and those downstream will get nothing. There is co-ordination.

Peter, you might want to talk about the system that is in place in terms of our

department and Alberta Agriculture and the continuous consultation with the irrigation districts. You might also want to comment on the number of people we have in the southern part of the province at our various offices who are geared totally to this project.

MR. MELNYCHUK: As the minister indicated, there is a co-ordinating mechanism with Agriculture and the districts, and it is part of what is known as the Irrigation Council. Environment has a member on the Irrigation Council, as does Agriculture. Of course, all the districts are represented on the Irrigation Council. This is the agency that ensures co-ordination of irrigation development and operations. I might also add that Environment has a regional office in Lethbridge, as does Agriculture. We are participants and are involved in the Alberta Irrigation Projects Association, which has membership from all the districts and from the departments.

Environment's responsibility is to ensure that there is a water supply for all users, and that is the reason this department has control of river structures. Not only is there a need for multipurpose use of water and the delivery of that water to irrigation and other users, but there is a responsibility to ensure that our interprovincial obligations and those kinds of needs are met.

MR. KOWALSKI: Just one more point, Mr. Hawkesworth. There is a myth in Alberta that when you take the whole geography, the boundaries of the province of Alberta, we are in a surplus position when it comes to water. In fact, we are in a deficit position; we need more water than we really have. People can see lakes here and there, and you can see water in one part of the province of Alberta, but we're in a deficit position. So the management of water is really critical and crucial.

We are also governed by apportionment agreements we have with the province of Saskatchewan that only allow Alberta to retain so much of the water that flows from the mountains through the province of Alberta and into Saskatchewan. We have to ensure that Saskatchewan gets a certain percentage of that water. In Alberta, from an economic development point of view and an enlivening point of view, we're consistently pressured to expand. They want more water, but we're also

governed by the contractual agreement we have with Saskatchewan to ensure that Saskatchewan gets a percentage of that water.

MR. HAWKESWORTH: I see from this report that you're projecting a total of \$555 million for your department's program, which appears to be just shy of doubling since 1980. If Agriculture were to increase at that approximate rate from \$100 million to over \$200 million as well, that's a significant investment between 1980 and 1995, as you said, and a significant investment in years to come. If the price of oil stays down, as you said in your comments on the previous question, or if a move is made to cap the money coming into the Heritage Savings Trust Fund in the next couple of years, what impact is that going to have, not only on your program and the commitment to completing your program in the years to come but also on the extensive commitment that may also be necessary to complete the Department of Agriculture's commitment in this area?

MR. KOWALSKI: Of course, that is the sixty-four dollar question that we're all staying up very, very late at night right now dealing with.

As yet we have no indication whatsoever from the Provincial Treasurer that the expectation level I as Minister of the Environment would have with respect to the \$55 million we've basically looked at in fiscal '87-88 will not be forthcoming. I believe a very important defence has to be made of the commitment to the irrigation headworks and main irrigation systems improvement program. It's extremely important, for all the right reasons, that we continue with it. However, if the price of oil were to fall to \$5 a barrel, we wouldn't have the luxury of doing these things anymore. That's a reality. But I'm an eternal optimist, and we in Alberta Environment will continue our work to plan for an expenditure level, commitment investment of \$55 million in fiscal '87-88.

MR. HAWKESWORTH: Mr. Chairman, in terms of options, I know that the users pay to a certain extent for the use that's made of the water in the irrigation system. Now, in looking at this possibility of capping the heritage trust fund and its possible impact, could any of the costs of the program be assumed by the districts themselves? Are there perhaps

repayments of some of these improvements that are flowing back into the fund from users of water in these districts, which might be reinvested or earmarked for the ongoing improvement program? Is that not an option at all? Is none of that money flowing back into the Heritage Savings Trust Fund, and might you therefore have to look at shifting some of the present spending in your department into completing these commitments and perhaps dropping other spending on water resources management? Are any of those options feasible?

MR. KOWALSKI: If we're brainstorming now, the worst scenario I'd be prepared to advance with respect to this particular program would not be cancellation of the program; it would be the deferral of a particular project. In other words, we wouldn't be talking about 1994-95 in the worst scenario; it might be 1995-96 or 1996-97. I'm not interested in cancelling this program at all. I think this is a very positive, beneficial program for all Albertans, not simply the people who live in that part of Alberta.

I'm going to ask Mr. Melnychuk to explain to you the system now in place with respect to the contribution of local people in terms of the cost of the water in the lake.

MR. MELNYCHUK: The contribution of the water users is toward that part of the program that is administered by Agriculture. Agriculture's program is the one that rebuilds the distribution systems within the 13 districts. The water users are contributing 14 percent of the capital cost of that rehabilitation. In addition to that, the water users are paying all the costs of operation and maintenance of those distribution systems within the districts. That is a rate per acre that they pay on an annual basis. That rate varies from district to district, but it's as high as \$14 in some districts. That is an annual rate per acre that the water user pays. As I said, it serves two purposes: for part of the capital of the rehabilitation of those distribution systems and for the total cost of operation and maintenance.

MR. McEACHERN: Mr. Chairman, I want to congratulate the minister on the excellent papers he brought with him and on the presentation. I would recommend that the

chairman ask further ministers who come to do something similar. Coming here each day, we've felt we should get something new. We've tended to get a bit of a quick verbal description, but we didn't get the kind of detail on what's happened since the new fiscal year started on April 1. So that has been very helpful to us, and I would commend it to all ministers coming in future.

My first question has partially been asked by my colleague, but I think I'd like to try to make it a little more specific. This 15-year plan incorporates costs for completion plus costs for services. Now, with the capping of the fund, which looks like it's pretty well determined now — we did not pass an appropriation Bill for the next year, so I assume it's really a fait accompli, not something we'll decide next spring, although I suppose we could bring in a belated Bill again. There was a suggestion, however, that we might increase the capital division from 20 percent to 25 percent of the total fund, thus allowing completion of ongoing projects so that we wouldn't run into that 20 percent ceiling. I guess what I'm trying to say to the minister is: you're going to have to fight for some of that extra 5 percent, and I'm wondering if you have any particular plans on how you'll go about doing that. Will you be able to compete to get some of that 5 percent? I think it's going to be pretty tight.

MR. KOWALSKI: I think I've already made comments with respect to my endorsement of and my belief in this particular program. I think it's extremely important. I think it's extremely vital. In terms of a fight, I'm not sure it would be required for one minister to have a fight with another minister with respect to that, but if I have to develop a strategy I would hope to develop a strategy that would allow us to win. If I had an opponent in terms of the development of the strategy, I wouldn't want to make that public. I wouldn't have a strategy then. I'm committed to this program.

MR. McEACHERN: Okay. I guess a question I'd like to ask is: with the work that is being done and has been done in the past, how successful are you in being able to make it so that each project — if we had to stop now, how many of them are viable and are serving good and useful functions and how many of them depend on continuing and completing the whole project? I

wonder if you could get at that.

MR. KOWALSKI: I think you have to recognize that water will flow, but one of the key aspects is to enhance the efficiency of the flow of water. We lose a lot of water in southern Alberta through evaporation, and we go back to the basic concern: there's only so much water. If that water starts moving from the western part of the province, by the time it gets to the eastern part of the province -- what we have to ensure is that we minimize the amount of evaporation and seepage and that we try to ensure that there's a maximum amount of efficiency in that flow so we can retain the greatest amount.

Built into all of these programs are some very sophisticated new approaches in terms of technology, and there's an ongoing evaluation being done with the irrigation districts, Alberta Environment, Alberta Agriculture, and the Alberta Research Council. The chairman of the Water Resources Commission has ventured to various places in the world and has brought out some excellent thoughts about new kinds of bases that you can use in canals to reduce the amount of seepage and evaporation as much as possible. If we have to curtail expenditures, in essence we'll have to zero in on rehabilitation at the cheapest cost, which may not necessarily be the most efficient way of doing it. But I think we have to recognize that we've got to maximize the amount of water retention. That has to be a key objective of this program. It's simply not good enough to build a hole or a channel and let the water flow and find out you've lost half the water, because the capital investment for the headworks then is questionable.

There are some really interesting things being done from the technical side in terms of improving the efficiency of these various canals. Peter, perhaps you would like to just give a couple of examples of the types of things that are being done.

MR. MELNYCHUK: Sure, I could do that. On the question: are certain projects complete and can they be left or delayed or in what condition -- I indicated the internal and off-stream storage reservoirs. These are complete, effective, and operating. We have concentrated on the long main canals where there were massive seepage problems and potential for a

canal overtopping or failing. We have concentrated on those areas that needed immediate attention. Where there was seepage, in co-operation with the Alberta Research Council there has been the development of particular types of liners that would be not only effective but of long-standing duration in terms of life. These have been installed on about 35 percent of the canal work that's been completed to date, and that's only in those soil conditions where seepage was a serious problem.

MR. KOWALSKI: Mr. McEachern, I think you'll note on the page we gave out today that there's that \$1 million expenditure for fibreglass lining research that was committed to this year. Perhaps, Mr. Melnychuk, you might just want to explain what that project is all about.

MR. MELNYCHUK: There is a variety of methods of controlling seepage in large canals, and these methods have been tried in various parts of the world. The kinds of main canals that we're building here are very large, massive canals. For example, in the case of the St. Mary main canal, the bed width is about 60 feet and the top width is about 110 feet. The types of linings that go into these canals in order to prevent seepage -- a certain amount of research and development work had to be done before the work could be concluded. As the minister indicated, we have undertaken with the economic development department \$1 million for research for new types of linings that would be cheaper and possibly more effective. This is ongoing research that we should be getting results on soon.

MR. McEACHERN: Thank you. I'm not quite sure you got at the essence of what I was saying, but I want to go on to a third question. Maybe what I was saying is more: if you build a house without a roof and then stop there, you've wasted what you've built, or if you build a beautiful hospital like the Walter C. Mackenzie hospital and then don't quite use it to full capacity because you can't quite get the funds to keep it running every year, you're maybe not getting the most efficiency out of it. You've touched on it, but perhaps that's sort of more what I was trying to get at.

You mentioned -- and I agree with the minister -- that it doesn't really matter where the funds come from, out of general revenues or

out of the heritage trust fund. It's all Alberta's money and belongs to all of the people of Alberta. But perhaps you could just comment on what kinds of costs we're getting ourselves into. I didn't bring my budget for the Energy department. Perhaps I should have, or taken a better look at it before I came. But perhaps you could give us some idea of the ongoing costs of this project to the General Revenue Fund in the future.

MR. KOWALSKI: There are no costs to the General Revenue Fund.

MR. McEACHERN: I thought some of the ongoing servicing costs . . .

MR. KOWALSKI: Okay.

MR. MELNYCHUK: On those canals that are owned by the province there will be an operation and maintenance cost which is attached to the General Revenue Fund. As a general rule, on canals and reservoirs of this kind the operation and maintenance costs run from about .2 to .5 percent of the capital cost. That's just a very rough figure.

MR. McEACHERN: That gives a rough idea.

MR. KOWALSKI: It's not a major, significant capital -- no.

MR. CHERRY: Mr. Minister, going on with reclamation, I guess one of the questions I have is: what part does the local jurisdiction in rural Alberta play as far as reclamation? Is there a partnership with the department and the local jurisdiction? I'm thinking more of garbage sites and that sort of thing.

MR. KOWALSKI: Under this particular project we're basically talking about reclamation projects as a result of land disturbances caused a number of years ago. Under the current approaches -- that is, since the early '70s -- basically there is a responsibility for anyone who disturbs the land to ensure that. But we're going back now historically, when we didn't have that process in place.

Very specifically, if a particular community said, "Look, we've got a sewage lagoon, a garbage dump, or a gravel pit, and we'd like to have it reclaimed," we would entertain a

proposal from them to do something with respect to that. Most of them are not major expenditure items. A little earlier this morning I think I gave the figure of perhaps \$10,000. Some are a little higher than that. If you've got the paper we submitted to you with respect to your own constituency, you'll see the magnitude of what's occurred this year. In the exchange I had with the chairman, we talked about the three examples in Red Deer park. Just to give you a variety of examples: an abandoned sewage lagoon in Lac La Biche has been turned into a walleye-rearing facility in co-operation with Fish and Wildlife; an abandoned sewage lagoon in the city of St. Albert is going to be turned into a year-round trout pond and will be operational in 1987; an abandoned garbage dump in Mundare is now an anhydrous ammonia distribution station; a sewage lagoon in Morinville, just north of Edmonton, has been rezoned and partially developed as a residential subdivision; at Bow City, south of Brooks, an abandoned coal mine has been turned into a fishing pond and is a staging area for Canada geese; and at Cardiff, near Morinville, an abandoned coal mine is now a golf course and has other recreation facilities attached to it.

If a service club were to come and say, "Look, we have this in our community, and we think it will be a great little fish pond or something like that," an arrangement would be made with the local municipality and that service club and with us to get something done. We're wide open for innovation and ideas.

MR. CHERRY: I don't know whether or not the other question I have is a direct question. Do they do a good job of getting out and explaining to the jurisdictions the grant structure on your [inaudible] landfill that the government provides? Is there an awareness that we're going to have to have some different type of landfill sites? Do you know what I mean? A garbage pit here and a garbage pit there: I think we're going to have to control it better.

MR. KOWALSKI: The government does not provide garbage pits for municipalities, and there is no funding for that under these projects under the Heritage Savings Trust Fund. That would be a subject of very considerable interest to me. I have to be geared by the chairman, I guess, as to whether or not I should. I'd be happy to, but . . .

MR. CHAIRMAN: I don't really think that's relevant to our discussions here today, Mr. Minister. Thank you.

MR. CHERRY: Okay. Thank you, Mr. Minister.

MR. HERON: Mr. Minister, on this committee we have good representation and expertise from people who are much more familiar with the irrigation investments. I would like to follow up on the land reclamation project already introduced by Mr. Cherry. At the outset, I do feel that the two are tied. On one hand, you create a regional landfill site, and on the other hand, as I understand it, you close out many small community dumps. As a recreational pilot flying over the countryside, there is nothing more noticeable or obvious than these small community dumps, especially after they're abandoned and have blown around a while. I'm also pleased to note that a large number of them have been restored and reclaimed. I would like to go right into your own constituency for illustration, Mr. Minister. Clearly, the Lac Ste. Anne regional landfill site doesn't fall within the scope of this committee.

MR. KOWALSKI: This is true. It doesn't.

MR. HERON: No, but the 20 small community dumps or landfill sites certainly would then become eligible, as I understand it, for investment under this program. I would like to ask what some of the procedures are. As I understand it, you will go in with a grant, reclaim them, restore them, and not take ownership of the property but freeze the use of the property for some period of time, recognizing that you could put an archery court, for example, or a gun range or something on top of them. I'd just like to have a bit of an overview as to what the procedure is and what you really do in this program.

MR. KOWALSKI: The land reclamation program we're talking about under the Heritage Savings Trust Fund was created a number of years ago. I'll repeat what I said at the beginning. It's due to terminate March 31, 1988. In the past 10 years something like 1,000 small projects have been reclaimed throughout the province of Alberta. In addition to that, as part of the annual investment under this

program we have also conducted a research component to consistently try and find better ways of reclaiming these scars on the landscape, and they go on and on.

The other aspect that I guess I could be drawn into deals with the General Revenue Fund. I think garbage disposal is an item I would like to make a high-profile item in the next couple of years. I think we have to become very, very innovative with respect to the disposal of garbage. The traditional method of simply digging a hole in the ground and putting in garbage may have been reasonable in terms of costs for the generator of the garbage — that's you and me and everyone else in this province — but I think we can do better from an environmental, aesthetic point of view.

You've heard me make many comments in the last number of months, saying that we've got to have a renaissance of thought on garbage. It's not a matter that anybody is really excited about, but it's a responsibility that I think has been easy to deal with by simply digging a hole in the ground. We're wide open to suggestions. I think the suggestions will have to go hand in hand with the report I'll expect in the spring of 1987 from the Environment Council of Alberta on the whole question of recycling.

There are innovative ways. I think there's gold in garbage. In the last few days I've had a submission from a little town west of Edmonton that basically says that it wants to compost garbage and then make that compost available to agriculture in the area as a soil extender. I said, "Well, do you want money from the province?" They said, "No, we just want endorsement from you that you think it's a good idea." They got that, and they're going to be working on that one. In another community in the province, Wainwright, we've had an allocation of dollars through special funding under the General Revenue Fund to build a very sophisticated incinerator with built-in scrubbers, and they're going to be trying that approach. You made mention of a third alternative, and I think there are many more alternatives that we have to entertain and use.

MR. HERON: Thank you.

MR. KOWALSKI: I guess I should just add one more comment. If we had dollars of the type we had before, this whole area would be one

about which I would be making a petition to the members of the Select Standing Committee on the Heritage Savings Trust Fund Act for special consideration under a heritage project.

MR. HERON: On that topic of a heritage fund investment, a moment ago I heard the hon. Member for Edmonton Kingsway say that it doesn't really matter whether it comes out of general revenues or out of the heritage fund; it's all Albertans' money.

MR. McEACHERN: It doesn't.

MR. HERON: I disagree very strongly. I think we as committee members have a responsibility to constantly strive to show the most accurate representation of these heritage fund dollars to the people of the province.

That leads into an area I have some difficulty with, Mr. Minister, and I would like to solicit your views as a minister and as a former chairman of the heritage fund on how you feel about showing, say, \$26 million as part of the rainy day fund, as an investment as opposed to an expenditure, when I think we've already recognized that many of the projects that are reclaimed are just that: they're surface improvements over which there is no ownership or any tangible value to the citizens of Alberta. Having made that statement, I wonder if I could solicit your comment.

MR. KOWALSKI: I've had a pet peeve for years. I think this government has simply been too modest about its accomplishments. I think it has to go out and show off, not in the hedonistic sense but to ensure that the people of Alberta do have the information that's really available to them.

Several years ago this committee made a recommendation that the Heritage Savings Trust Fund should convey more information to the people of Alberta, so we published some pamphlets. Here's an Environment pamphlet: How our Heritage Fund is Working for Us. I wonder how many people of Alberta, after reading a pamphlet such as this, really appreciate it. We have a very modest little sign at these little reclamation projects, saying that funding has come from the Heritage Savings Trust Fund and the province of Alberta. I think far too few people in our province really appreciate the excellent work that's being

conducted by the capital projects division of the Alberta Heritage Savings Trust Fund.

MR. HERON: Thank you. Those are my questions, Mr. Chairman.

MR. R. MOORE: Mr. Chairman, I wasn't intending to get into land reclamation, but the previous speakers bring up some questions in my mind. Mr. Minister, we've spent \$26 million on land reclamation. When I look at the very large projects in the Lacombe constituency that I just got notification of, I wonder how you split the money. When I look at the report here, you've got two components in that: land reclamation and research, basically. By the way, my project was \$51.60.

MR. PAYNE: I explained that that was postage for refusal letters.

MR. R. MOORE: I want to point out, Mr. Minister, that Cypress-Redcliff got 13 times that amount, and I think the thing we have to take from that is that they have more garbage than we have.

However, back to my question on research. I was wondering what percentage of this is actual land reclamation and what is research. Both are very major concerns. Have you a breakdown of how that goes?

MR. KOWALSKI: Thank you very much. I would hope, Mr. Moore, that we would not compare a program in terms of the expenditure level of a particular project in a particular constituency in a given year. Recognize, please, that this has been a 10-year program, and recognize as well that as I indicated, I will be conveying to all Members of the Legislative Assembly the number of projects that have taken place in their particular constituency over a number of years.

Very specifically, in terms of the 1985-86 expenditure level, land reclamation projects themselves amounted to \$1.385 million, reclamation research amounted to \$1.138 million, and some very major studies have been and are being undertaken with respect to reclamation research. I'm going to ask Mr. Smith to give you some additional information on the types of research projects that are ongoing with respect to that.

MR. R. MOORE: That's very good, Mr. Minister, because I think that's a very, very important area. Just to underline what you said previously, garbage disposal is a major issue out there. We don't seem to accept that, but we need a lot of research in this area on what we're going to do with it in the future.

MR. SMITH: Our investment in research for reclamation purposes is in excess of \$8 million under this program, and that has been basically divided into three broad categories of projects. In the early years of reclamation research, we focussed initially on reclamation of plains, surface disturbances, and particularly coal mining developments. We've made substantial investments in co-operation with both the industry and research institutions in Alberta in identifying the particular problem areas that we have in reclamation. I'm thinking in terms of soil handling techniques, levels of soils that are required to be reclaimed, the questions of groundwater contamination and hydrology issues that have been the focus of our plains hydrology and reclamation program.

In addition to that, we've identified two other large areas for research. The foothills and mountains component of the program is under way now. It is the second area we've initiated work in, and a third component relates to our Alberta oil sands development and the reclamation issues associated with those. Most of our research has been aimed at practical, regulatory aspects that we have to deal with under our land reclamation legislation: trying to find better, cheaper, and more efficient ways of achieving our reclamation objectives in the province.

MR. R. MOORE: On another subject. Mr. Minister, on all our irrigation projects where we're storing water, there's a potential for development of tourist areas. How does that work? We're spending heritage trust fund money in developing these. Are we developing them with the idea of their being compatible with expanding the tourist facilities for that area so that we gain the biggest potential from tourism?

MR. KOWALSKI: With security of water, I think you then have a security of people wanting to come and visit an area. Just a couple of examples. Under this whole program

you've had new recreation facilities that you can see today at Stafford, Crawling Valley, Badger, and Keho reservoirs. They are going to be developing a new recreation park at Forty Mile Coulee. A trout pond has been developed in the Lethbridge Northern Irrigation District main canal. We've also seen a recovery, an enhancement of the wildlife populations throughout the southern part of the province of Alberta. Those things attract or retain people.

In addition to this, because of the security of the feeling in the area, we've also been able to attract outside dollars into the southern part of the province, not under the Heritage Savings Trust Fund, but it wouldn't have happened if we had not had this commitment. Mr. Sparrow, the Minister of Forestry, Lands and Wildlife, has been really successful in the last couple of years in attracting a lot of dollars from Ducks Unlimited. Just recently, in the last couple of months, both he and I were in the Milk River area to open the Tyrrell-Rush project, and we were told by Ducks Unlimited that over the five-year program they are prepared to see some \$50 million expended in the province of Alberta for wetlands improvement. We're talking about wetlands improvement in an area that a hundred years ago Palliser referred to as a desert. So there has been a very, very substantial commitment, and in the meetings that I had with key executive officers from Ducks Unlimited from Mexico, the United States, and Canada, they were just really, really delighted with what was happening, the co-operation, the enhancement. It becomes a much more livable environment.

MR. R. MOORE: Another area of enhancement — you know, there's an interrelationship between towns and villages with irrigation and range projects too. Their demand for that same water is there. Are we working very closely with them so that the requirements of communities along these areas of development are being met, or are we allowing them to go their separate ways? Is there a co-ordination that we utilize the development to the fullest potential of all the game players in the area?

MR. KOWALSKI: Yes, there is co-ordination, and of course it would come under the jurisdiction of Alberta Environment. In essence, those types of projects you're talking about, which seems to be almost a contradiction

in terms -- a drainage project in a town in that part of Alberta would in essence be funded under the General Revenue Fund and a component of the general budget of Alberta Environment. But the individual who would live in that part of Alberta would on the one hand be making requests for improvements for irrigation and at the same time would be indicating that there is a drainage problem in the particular town they may live in, and how can the government, Alberta Environment, help. It's an ongoing program.

MR. R. MOORE: Just a comment, if I could, Chairman. Back to my original comment. I mentioned \$51.60, but in all fairness I must say that that must have been a carryover into this year from a project that spent several thousand dollars in previous years for the reclamation job in that area, and we appreciate it. The \$51.60 really doesn't indicate the thousands that went into that project under the program. Thanks very much, Mr. Minister.

MR. PAYNE: Mr. Chairman, first of all I'd like to compliment both the incumbent or present minister and his predecessor, Mr. Bradley, who of course is a member of our committee, for the unquestionably impressive and competent way they have administered these funds appropriated from the Heritage Savings Trust Fund. I think it goes without saying. Mr. Minister, in your opening remarks you made reference to a possible deficit of \$3 billion.

MR. KOWALSKI: I read that in the paper.

MR. PAYNE: Yes, I did too.

For a province with a population of 2.5 million and an annual budget of \$10 billion or so, that's a very concerning deficit. In recent weeks the hospitals minister, the Social Services minister, the Education minister, and other members of Executive Council have instigated public discussion of a range of painful options to try to turn the deficit ship around. I know I speak for my constituents in saying that I give my full support to all members of Executive Council as they try to address that very serious fiscal problem.

With that as a backdrop, I'm looking at a document you provided this morning that anticipates an aggregate public expenditure of \$555 million. I suspect that in the days ahead

you as the minister responsible and we as Members of the Legislative Assembly will have an increasing challenge in defending public expenditures of this magnitude against that fiscal backdrop. I wonder if I could ask you, Mr. Minister, to quantify in some way or to speak to the benefits of this \$555 million expenditure, perhaps in generalized terms or possibly with specific reference to such things as how many farmers or farms benefit and to what extent the productivity of those farms has been enhanced, so that the citizens of Alberta and we as we speak to this expenditure can comfortably and logically explain a half billion dollar expenditure for these kinds of projects.

MR. KOWALSKI: Sure. Thank you very much. I guess in a very, very general way our quality of life and our way of life in the province of Alberta is geared to ensure that we have the very highest standard of medical facility and the very highest standard of educational facility. I would have to put management of water on an equal status, basically, with the enhancement of life. You're not going to have life without water. That's just a common, general statement. So I view water and the management of water as extremely important. Not all the projects are necessary to the same degree as they might be if you were in a very affluent society. I think we already talked about that earlier this morning. Basically, our commitment is to ensure that we maximize the use of water. We may have to defer some of these, but I'm not talking about cancelling projects. At this point in time, nobody has told me that that's what we're going to have to do, so I'm going forward.

In terms of the importance of it, we've talked this morning about retaining a population in southern Alberta first of all, seeing an expansion in agriculture, and seeing the impact it has on water for communities. I've given you figures with respect to the number of communities for which proper management of water would ensure that they have drinking water in their homes and the like. It goes on and on.

In terms of specifics to the importance of irrigation farming versus dryland farming, I think a number of studies have occurred in the past. If I can recall from memory, my general understanding is that irrigation will enhance productivity of the land four to five times

above what dryland farming would in that part of Alberta. So there is an economic return. It's not an economic return that would come directly to the province. In essence, we would get it if a farmer is making a profit and has to pay income taxes; the province would generate something back. We also have to remember that the cost to an individual farmer for irrigation farming is also very, very significant on a per acre basis when you consider the mechanism they would have to deliver that water to an acre of land and the rental costs that would go with it as well.

I guess the final line balance would be that if we did not have irrigation in our province — and we have the most sophisticated irrigation structure in Canada; we have more acres under irrigation in Alberta than in any other province in the country — then in essence we would have a different life-style for that part of the province of Alberta. You can compare it very, very easily by driving in any of those areas where there are irrigation districts and simply going to the north and east of there. You will come across a very beautiful part of the province called the Special Areas, where farms are very distant from one another and where there is a major potential for some 5 million acres of land that might be brought into very sophisticated agriculture if it had water.

MR. PAYNE: Thank you, Mr. Minister. I do have another question. It's not really a supplementary; I guess it's only indirectly related to my first question. As a third-term member of the Assembly I've grown somewhat skeptical of those who approach us and say, "We have a new idea for a government expenditure to save money over time." I don't mean to undermine those appeals, but you hear so many that you become somewhat skeptical.

Hypocritically I would now like to advance such a proposal. There was a very modest allocation indicated in the document you provided this morning, Mr. Minister: \$1 million for fibreglass lining research. I do appreciate that that was an amount transferred to the department of economic development. Notwithstanding that, I understand from my more learned colleague from the southeastern part of the province that seepage in irrigation canals can be of great concern in certain soil conditions. I suspect the seepage is low in clay-type soils as compared to sandier or more

impermeable soils.

I agree with you, Mr. Minister, that our water is valuable now and is going to be incredibly valuable in the years ahead as other nations and other parts of our own country find themselves with a declining resource like water. With that as a backdrop, I think we should all concern ourselves with maximizing the water potential we have in a volumetric sense and should be very concerned about putting it through the shredder. Whether it's 10 percent, 20 percent, or 50 percent, it just seems to get lost through seepage. Therefore, I think the \$1 million consideration is far too modest. I would like to advocate a beefing up of that kind of research expenditure, because I think it will pay us incredible dividends over time.

Could I ask the minister what his budgetary intentions are for research with respect to seepage prevention in general, and with particular reference to the fibreglass project that's shared with the department of economic development?

MR. KOWALSKI: A fair amount of work has occurred since 1980 with respect to improvements and reducing the seepage factor. What you have in here is a particular kind of special project. As an example — and I think Mr. Melnychuk talked about this a little earlier this morning — seepage control measures were implemented in the St. Mary and Lethbridge Northern main canals for some 83 kilometres, or 38 percent of the length. It's very technical: 34 kilometres had a PVC membrane liner and .3 metres of gravel cover; 33 kilometres had interceptor tile drains; and 16 kilometres had PVC partial liner or cutoff curtains. It is very expensive, Mr. Payne. An average cost to control seepage might range from \$75,000 to \$250,000 a kilometre. It's a very significant cost, but you have to balance it in the terms that if you don't retain more water, you don't have life. So the cost is a commitment, and I guess it's best funded under the Heritage Savings Trust Fund because it is an expenditure not only for today but for the future.

I thank you very much for your endorsement of the research components of it. We're constantly looking, by the way. This is not simply one project here. There has to be constant need for improvement.

MR. PAYNE: Thank you, Mr. Chairman.

MR. R. SPEAKER: Mr. Chairman, first of all I want to congratulate the minister for his enthusiastic support of the projects that are his responsibility under the Heritage Savings Trust Fund. As I listened to some of the questions by the committee this morning, I had the opportunity of seeing the evolution of irrigation in the southern part of the province and the involvement in that problem of various sectors of our economy and of government as such.

I think back to the day the apportionment agreement was signed between Saskatchewan, Manitoba, and Alberta. It was a very difficult time, when the cabinet of that day were committing themselves to saying that 50 percent of Alberta's water would leave the province, and Saskatchewan was in turn saying that to Manitoba. I remember, in a very benevolent sense, the Minister of Agriculture of the day saying, "We do have a responsibility beyond Alberta to other Canadians." On that basis, that agreement was signed. We do have some very significant commitments in terms of water, and these expenditures of the Heritage Savings Trust Fund are very important in meeting those commitments in the future. One of these days those provinces will be calling on Alberta to meet them in a more rigid sense. They've been very flexible up to this point in time.

In terms of the rehabilitation of districts, I think the expenditures we've talked about today have now evolved to \$55 million. Back in the '60s, when we didn't really spend anything on rehabilitation, districts were in terrible shape. The use of water was just abuse. Water was spilled all over the place, roadways were flooded, farmers were flooded, land was flooded: it was a very terrible mess. Today, as you travel through the districts, not only have the districts improved their efficiency but farmers have improved their efficiency and spent many, many of their dollars in terms of PVC piping, mechanization of water distribution, and knowledge and study of the use of water and how to use it to the best of their capability, certainly with the idea in mind of having some kind of net profit on the farm.

So many good things have happened, and I think that at this point the use of the Heritage Savings Trust Fund must be recognized as to what we've really done as a committee, as a

government, as legislators, and as people in the various districts that have an assortment of responsibilities. I would say that we've set the capability in using water in southern Alberta for irrigation and many other purposes for the next 40 to 50 years. We've put in place a capability, a great heritage, and to Mr. Payne, when we talk about the benefit of the future, it's going to be there.

I could cite numerous examples of where just irrigation canals, the completion of the Three Rivers project, the delivery into Kehoo dam -- and the St. Mary district, which was wasting and losing much water, today is not and will not for the next 40 to 50 years because the kinds of systems we're putting in through the Heritage Savings Trust Fund have the capability of lasting that long. The engineering, the work that's gone into it, has looked at that kind of design work so that in three or four years we're not back to massive silting in the ditches. I think we've overcome a number of those problems by some good commonsense co-ordination and work by the department, local persons, and various consultants.

I just wanted to say, Mr. Minister, as a representative from southern Alberta and one who is very involved in the irrigation process, not only personally but also with the districts, that we appreciate your support and willingness to speak out in terms of this program.

With that preamble, I'd just like one information question. It hasn't been mentioned yet, and that's with regard to Three Rivers and where we are. The some \$80 million to \$90 million that Lethbridge Northern is now spending through the heritage fund in terms of the works there -- good improvement. I would have to say that I wasn't quite aware that that many millions of dollars had already been allocated through to that district, and I think you should stress that on Monday when you speak to the districts. I'm sure not all irrigation district board members are even aware of that kind of allocation. Maybe you could give us a little bit of an idea of what's happening at the Three Rivers project, how that's coming along, and will it stay on target.

MR. KOWALSKI: Okay. The Three Rivers damsite of the Oldman River dam is not a part of funding that will come under the Heritage Savings Trust Fund.

MR. R. SPEAKER: I understand that, but it's necessary to get the best use out of our expenditures.

MR. KOWALSKI: We basically have determined that the dollar target figure that we will use with respect to the Oldman River dam is \$349.6 million in 1986 dollars, and it will come under the General Revenue Fund. A couple of years ago there was a small portion to kick it off that came under the Heritage Savings Trust Fund, but then that was paid off, and now it's the General Revenue Fund. Essentially, for the Three Rivers dam -- or, I guess, the Oldman River dam -- a number of steps have occurred this year by way of the allocation of contracts. A major contract was allocated for some initial phasing of tunnelling. It has been awarded. Construction is under way. The camp, the city, the village, the town -- whatever you'd like to refer to it as -- has been established and is located on the north side of the reservoir. It's a fully functioning infrastructure. It's like a little town, quite frankly. A road to the site has been completed, as has a small bridge built over the Oldman River. So that progress is under way. I had an opportunity recently to visit the site, fly over it, and talk to people in the area. I've had a number of meetings with the MD of Pincher Creek with respect to it, as well as the local advisory committee, and basically our plan is that by 1991 the Oldman River dam will be a reality.

MR. R. SPEAKER: In terms of the land acquisitions, is that . . .

MR. KOWALSKI: Yes, the land acquisition with respect to the lands required comes under the Department of Public Works, Supply and Services rather than Alberta Environment. Alberta Environment has identified the land in question, and it's my understanding -- Mr. Melnychuk, you can correct me if I'm wrong -- that something like 75 percent of the required land has now been acquired. As oftentimes is the case when you're dealing with landowners close to a major project like that, you may only need 20 or 30 acres from a particular individual, but by way of a policy we have to ensure viability of homesteads, you end up purchasing the 160 acres. We have basically now determined that we have now purchased enough

land to allow us to exchange land with other people who might be affected, but aside from a few specific examples, that matter is not a major problem at all.

MR. GOGO: Mr. Kowalski, when the dean of the Alberta Legislature, Mr. Speaker, pours that kind of praise on you, he's either after something, with reason, or it was said with a great deal of sincerity, and my view is that it's the latter. I heartily endorse the comments of the leader of the Representative Party with regard to your enthusiasm in your portfolio.

Regarding the Oldman dam, questions have already been raised. I recall that the minister discoursed at length in the Assembly during his estimates about not only the increased costs but the increased capacity of that dam, which was one of the reasons for the increased costs. The question has already been raised about the compensation for land. My recollection is that the government of Alberta is committed to adequate compensation for anybody who is disrupted in terms of their farming operation.

Minister, I have two questions, really, and I would hope you can answer both of them. At this time Alberta does not have a provincial preference policy whereby bidders on public projects do not have to be lower if they're outside our jurisdiction. The Oldman River dam is quite unique in that it's close to the British Columbia border, where, unless bids of people in Mr. Bradley's riding -- for example, Blairmore and Coleman -- are 10 percent lower than in British Columbia, they simply don't have a smell of the business. I understand that it's not true in reverse, that this province does not insist on a provincial preference.

With regard to the Oldman River dam itself and those people bidding on it, have you as minister had any complaints from Albertans that British Columbia people are bidding successfully on various projects? That would be my first question.

MR. KOWALSKI: I should point out to you my involvement with respect to those projects, but you're dead correct. There is no Alberta preference in terms of bidding in the province of Alberta. Over the number of years and in the various capacities that I held with the government in a nonelected capacity, and I guess the most recent one was before I had the privilege and opportunity to serve with you as a

colleague — basically, the construction industry in this province does not want a provincial preference. At virtually every annual meeting of the construction groupings you go to — the next one will be the Alberta Roadbuilders Association at the end of the month — they consistently turn it down. I remember raising that issue 10 years ago.

Having said that, I guess the major contract that was issued with respect to the Oldman River dam in the summer of 1986 was awarded to a low bidder, which was a joint consortium of Kerkhoff-Hyundai and which has its head office just a couple of miles west of the Rocky Mountains in the province of British Columbia. The second lowest bidder in that particular contract was a consortium of an Alberta company but an outside-Alberta company, PCL Anderson. The difference was something like \$1.25 million. It was awarded to the low bidder at \$25 million and a couple of thousand dollars.

I got directly involved by calling the low bidder into my office here in Edmonton and having them sit down in front of me. We went through the contract and asked a series of specific questions: "If we award this contract to you, what is the Alberta component on a whole series of things?" We walked away from there absolutely satisfied that 90 to 95 percent of all the aspects of the particular work would be Albertan. There were a couple of technical people from Hyundai who have worldwide experience on the tunnelling side of it and have a certain expertise that will come from outside the province. I think it's five, six, or seven people. That would also have applied to the second low bidder. PCL did not have that expertise, and that was the reason they went with a joint venture with another outside-Alberta firm. So the two were one and the same.

I have not only been assured by Kerkhoff-Hyundai that they will meet those limits of Alberta content; I insisted that they meet those limits, and I told them we will monitor that on a month-to-month basis. In addition to that, we have more than simply an Alberta preference attached to this particular project. We also have a local hiring preference built in. A circle was drawn around the damsite. I forget if it was 60 kilometres or 40 miles. In terms of employment, preference will go to those citizens who live in that particular area. We determined to do that because of the high

unemployment in the Crowsnest Pass area of the province of Alberta. I've also pointed out to that particular major bidder that they should also look favourably at the citizens who live in the Peigan Indian nation, and I've talked to the chief about that as well.

We did that. There was direct intervention by the minister with respect to that particular contract. It was awarded to the low bidder. The second bidder that came up was basically a firm, a contract with respect to the provision of food services. We did the same kind of thing: the same kind of interview, the same kind of questions, insistence, and what have you. It will be our intent to do that with whoever the low bidder is, Alberta-based or not, to specifically go through and insist on the Alberta content or component side of it.

We're going to have complaints periodically, because somebody will undoubtedly phone from a part of Alberta that's 400 miles away from the Oldman River damsite and say: "What's this Alberta preference? Why can't I have a job at the Oldman?" I'm not going to get involved in the hiring of people. They may run into a conflict when an individual from that particular area has the same qualities and qualifications as an individual 400 miles away. I think it's safe to say the preference will go to the individual in the area.

MR. GOGO: Minister, I . . .

MR. CHAIRMAN: Maybe before we go to the supplementary, the chairman is having a difficult time relating the Oldman River dam project to the capital projects in front of us this morning.

MR. HAWKESWORTH: In view of that, I'm wondering if you'll extend the time period. Two hours is very, very short as it is. I didn't interrupt because I thought it was interesting to get the information. Would you extend our time here?

MR. CHAIRMAN: The chairman has another appointment just after twelve, so I certainly wouldn't be in a position to stay.

MR. HYLAND: On a point of order, Mr. Chairman, I don't think you can. Mr. Hawkesworth, the time length was set at one of the first meetings. It would be a matter of

coming back, rather than changing the time limit.

MR. CHAIRMAN: Member for Lethbridge West, do you want to continue, please, with your supplementaries?

MR. GOGO: I would defer either to the hon. Member for Calgary Mountain View or to another member of the committee. I just want to reiterate that the Alberta government has felt strongly about local economies and allowing local people to work, and we know how disastrous things have been in the Crowsnest Pass, not relating to the hon. member but to the fact that mining is a thing of the past. I feel very strongly about this, and I'm very pleased that the minister — notwithstanding what criticism he may have under the Charter of Rights of this country, the minister should be commended for putting Albertans first in terms of employment.

Thanks, Chairman.

MR. CHAIRMAN: Thank you. In light of the hour, I want to thank the minister and the officials he brought with him for some very helpful and informative information this morning. We now stand adjourned until Monday at 2 p.m., at which time we'll hear from the hon. Minister of Hospitals and Medical Care.

[The committee adjourned at 11:58 a.m.]