

[Chairman: Mr. Ady]

[10:02 a.m.]

MR. CHAIRMAN: We'll call the meeting to order this morning. We'd like to welcome the Minister of the Environment and his department people. We welcome you here this morning, Mr. Minister, realizing that it's your first time to appear before this committee, and we look forward to your input.

We're here this morning to review the projects funded for your department from the capital projects division of the Heritage Savings Trust Fund, specifically the irrigation headworks and main irrigation systems improvement and the land reclamation. The committee may also see fit to ask questions on projects that have previously been funded under the capital projects division of the Heritage Savings Trust Fund.

I'd also like to remind the committee that the Oldman dam is not the responsibility of this department but rather the Department of Public Works, Supply and Services, so please defer your questions on that for that minister when he appears before the committee.

On that note, Mr. Minister, we'd like to invite you to introduce your department people that you have with you and to make whatever opening comments you might like to, and then we'll open up the meeting to questions from the committee.

MR. KLEIN: Thank you very much, Mr. Chairman. To my right, Peter Melynychuk, who's ADM in charge of Water Resource Management; to my far left, Bill Symon of finance, ADM; and, of course, Vance MacNichol, the Deputy Minister for the department. These gentlemen will be glad to answer in detail any questions I can't answer. Certainly they have a wealth of knowledge and expertise and will provide full and comprehensive answers to any questions members of the committee might have.

Mr. Chairman, I have a few opening statements, if you'll permit me.

MR. CHAIRMAN: By all means.

MR. KLEIN: First of all, I welcome the opportunity to participate in this committee for the first time as Minister of the Environment. My department is responsible for two important programs; namely, the irrigation headworks and main irrigation systems improvement program and the land reclamation program. The irrigation headworks and main irrigation systems improvement program not only provides water for irrigation but also provides for a wide range of multipurpose uses such as domestic water supply for area residents, municipal and industrial water needs, water-based recreational facilities, and wildlife enhancement. In short, it is the lifeline of the southern Alberta economy, as you well know, Mr. Chairman.

The primary objective of this program is to ensure adequately sized, efficient, and reliable supply delivery systems to all 13 irrigation districts and to the Berry Creek region in the Special Areas. This, of course, is to meet existing and expanded demands for irrigation and the water users. A major emphasis was placed on modernizing these existing systems to improve their operation capability and delivery efficiency and on controlling seepage from the canals to minimize damage to adjacent farmland and, of course, to conserve water.

The program to rehabilitate the headworks system was initiated in 1975, and it was significantly expanded in scope following the government decision in 1980 to proceed with an integrated water

management plan for southern Alberta. This is a 15-year program ending in the year 1995. Work has been initiated on all components of the program, and by March 31 of this year approximately 69 percent of the program was complete. The total expenditure on the program to March 31, 1989, is nearly \$400 million, and this includes the \$9.5 million expended prior to 1980.

Mr. Chairman, I'd like to reiterate at this time that this program is essentially for the rehabilitation and upgrading of existing irrigation main conveyance systems. These systems were primarily built during the early part of this century, and the headworks systems of some of the districts have been in operation for over 60 years. Improvement and upgrading of these systems is necessary in order not only to meet present-day demand but also the expanding level of multipurpose water use such as municipal use. After six decades of continuous operation the conveyance structures and the main canals of these systems have deteriorated badly and are in poor condition. The system capacities were limited and were barely adequate to meet the needs of the districts; therefore, a major rehabilitation program was urgently required in order to provide for the uninterrupted operation of these systems for a reasonable length of time.

Now, turning to the land reclamation program, Mr. Chairman, I would like to make a few comments regarding this very popular program. The government allocated money through the Alberta Heritage Savings Trust Fund to the land reclamation program in 1976-77. The current program was renewed on November 2, 1988, for a five-year period to 1993-94. As members of the committee know, the objectives of the program are basically to return lands as closely as possible to their original capability, to carry out reclamation research on industrial disturbances of land to determine methods of minimizing such disturbances, to provide for early certification of reclaimed lands, and to create local employment for many Albertans. In the last while the most common projects are municipality oriented and consist of abandoned landfill sites, sewage lagoons, water reservoirs, sand and gravel pits, and other nonmunicipal projects such as mine hazards, which I expect will increase in intensity over the next few years as we see a renewal of mining operations.

To March 31, 1989, a total amount of \$33.4 million has been expended on the program, resulting in almost 1,150 individual projects being reclaimed, mainly small projects that previously scarred our landscape. Additionally, this expenditure has enabled much-needed reclamation research to be undertaken, and we are now starting to get some answers as to how we can minimize industrial impact on land and assist in determining how to reclaim that land. Some very interesting problems have confronted us, the most recent one being the old creosoting site in the city of Calgary that was contaminated many, many years ago. The challenge now, of course, is to identify the severity of the problem and come up with ways of reclaiming that land.

You will note that during the 1988-89 fiscal year expenditures total \$1.7 million, which enabled us to continue research and complete 81 individual projects across the province, most of which were abandoned landfill sites. So I'm very encouraged that the program mandate has been extended. I think it is important to note that Alberta's landscape is still scarred by the remains of a wide range of past activities such as abandoned irrigation ditches, railways, and roadways; abandoned water, oil, and gas wells; and extensive sand and gravel operations on private lands. Hopefully, with the continuation of this program

we will be able to address those outstanding issues as well. With that, Mr. Chairman, I would like to entertain questions.

MR. CHAIRMAN: Thank you, Mr. Minister, for your good overview.

I would like to call the first member, Edmonton-Avonmore. First question and two supplementaries going to the minister or his delegate.

MS M. LAING: Thank you. I would like to address my questions in relation to land reclamation and in particular the reclamation of land in Picture Butte for the Pocklington project that has been put on the back burner as not going ahead because of Mr. Pocklington's financial difficulties. I'm wondering if the minister could tell me how much money has been spent on that particular site.

REV. ROBERTS: Come on; you have a question.

MR. KLEIN: Yeah, I know, and I'm getting the answer, right. Be patient.

The cost for the reclamation was over \$320,000, of which the department contributed \$230,000. The reclaimed land is located adjacent to the existing industrial subdivision in Picture Butte and has added approximately 3.6 hectares of land to their industrial land base and leaves about 13 hectares as greenbelt or parkland.

MS M. LAING: The second question, then, I would have ...

MR. KLEIN: The town of Picture Butte has title to this property.

MS M. LAING: I would ask, then, who will in fact be paying the cost? Is there any way of recovering the cost of this reclamation now that the proposed use will not in fact be the real use of this land?

MR. KLEIN: I see what you're driving at. You're trying to make the case that this reclamation project was solely for the benefit of the meat processing. Was it meat processing? What was it, in Picture Butte?

MR. McINNIS: It was supposed to be pork.

MR. KLEIN: It was supposed to be a pork producing plant, but in fact it was a site that would require reclamation in any event.

MS M. LAING: It would appear that in fact it was done for the benefit of Mr. Pocklington.

But I have a further question. When there is an examination of a site to be reclaimed and some suggested purpose, what kind of criteria are used to establish what site reclamation will be done - that is, to guarantee the citizens of Alberta, on whose behalf this money is being spent, that this money is not being spent simply for the purposes of aiding specific people like Mr. Pocklington?

MR. KLEIN: Well, the hon. member is alluding to some allegations that I'm not prepared to respond to at this particular time. I'm prepared to respond to one component of that question, and that is the merit, the criteria for which money might be spent to reclaim land. That is usually done in consulta-

-tion with the municipalities or in consultation with industrial sources, who look at a piece of land and say: "That's a pretty crappy looking piece of land. You know, I'd like to do something with that. Can the province help us with it?" That's how it comes about. As far as I know, the land in question in Picture Butte is land that would have been reclaimed in any event because the town wanted it reclaimed for industrial development and for park use.

MR. CARDINAL: In the area of land reclamation again. Since the inception of the land reclamation program, over 1,150 sites have been reclaimed. How many sites were reclaimed this past year, and how many sites remain to be reclaimed?

MR. KLEIN: In this last accounting year there were 81 sites reclaimed, and it's estimated that there's something in the neighbourhood of 400 additional sites throughout the province that have yet to be reclaimed.

MR. CARDINAL: A supplement to that is: is there a priority as to what areas - north, south, central Alberta - that you have in site reclamation?

MR. KLEIN: No. There is no priority according to region. There is a priority according to the severity of the contamination.

MR. CARDINAL: Thank you.

MR. ADY: Thank you.
The Member for Edmonton-Meadowlark.

MR. MITCHELL: Thank you, Mr. Chairman. I'd like to welcome the minister and say it is a pleasure to get a chance to ask some questions. It's been two or three months since we've had that opportunity. I'd also like to say hello to his deputy minister, who has worked closely with me on a project, and I'd like to say once again that I appreciate that greatly.

MR. TAYLOR: You're really trying to bugger up his career, aren't you?

MR. MITCHELL: I would like to address the issue of research into technologies which could promote environmentally related industries in Alberta. Clearly, such initiatives would be consistent with the aims of the Heritage Savings Trust Fund. Not only is our environment one of our most significant heritages, but it is also the mandate of the heritage trust fund to diversify, develop industry, and broaden our economic opportunities for the future. Developing ideas, technologies upon which environmentally related industry could be based seems to be entirely consistent with that mandate. I raised this with the Premier when he was here several weeks ago, and he gave this idea a strong endorsement.

Could the minister please inform the committee whether he has given any consideration to utilizing or requesting the Heritage Savings Trust Fund for research projects into technologies that would, one, protect our environment and, two, could be utilized to create industry to protect, to clean up our environment and the environment elsewhere in this country and in the world?

MR. KLEIN: Well, I take it you're talking in a global sense.

You aren't referring specifically to irrigation headworks, main canals, or land reclamation. You're talking about...

MR. MITCHELL: I'm talking about the possibility of this committee recommending, after a discussion with you, to spend Heritage Savings Trust Fund money, some quantity of it, in a new way, in a different way, and that would be into research.

MR. KLEIN: To answer your question: no, I haven't given it specific consideration. I've had other things on my plate, as you've noticed.

MR. CHAIRMAN: If I could just interrupt. Probably the member is straying slightly, but I allowed the question because by stretching it to some extent, it does impact on land reclamation. If recycling were to be an initiative of the province, then ...

MR. KLEIN: But I think the question is a good question, Mr. Chairman. The hon. member has raised a point, and I'd be glad to discuss it with him. I came here today prepared to deal with the two programs that are before us, but I think this is something that is worthy of consideration and could indeed enhance and build upon the work that is now being done through the environmental research centre in Vegreville and within the department, and could be applied to specific projects such as the comprehensive recycling project that is being prepared and how we create value-added and so on to recyclables and develop markets.

MR. MITCHELL: Thank you. I wonder, Mr. Chairman, whether the minister could give us an indication as to whether he and his department believe that the technology for creating recycled pulp - that is, pulp from only recycled fibres - and then ultimately creating paper from only recycled fibres, is in a state that it could be applied right now, economically, in Alberta. If not, could he utilize a grant from the heritage trust fund to assist in developing the technology that would allow that to occur?

MR. KLEIN: Well, Mr. Chairman, I'm sorry, my head is just not in a space to answer those questions right now because I came, I hope fully prepared, to answer questions on irrigation headworks, main canals, and land reclamation. The hon. member is leading into something...

MR. TAYLOR: You'd never suspect it.

MR. KLEIN: I guess pulp turns into paper, and paper turns into landfill, and landfill eventually has to be reclaimed. So if that's what he's getting at, you know ...

MR. CHAIRMAN: Perhaps we have allowed it to stretch a little far. But by the same token, you have agreed to respond to him under another forum. In fairness, can the member accept that?

MR. MITCHELL: Mr. Chairman, maybe as a point of order: I think there are two initiatives that this committee has to undertake. One is to review how money has been spent; but two, we're in the process of developing recommendations about how it should be spent. It seems to me that a very responsible and reasonable way to apply Heritage Savings Trust Fund money is through environmental research into industries and tech

-nologies that can be utilized to create industries and to have the opportunity to ask the Environment minister questions related to that. Not to be able to ask them seems to me to be entirely inconsistent with what this committee should be able to do.

MR. KLEIN: Mr. Chairman, with all due respect, I'm not in a position to reply specifically to that question other than to say I would be very, very happy to discuss these matters with the hon. member because I think they're worthy of consideration.

MR. MITCHELL: By way of notice, I'm saying that... My second question is: would you please consider technology to create recycled paper? It isn't made in Alberta; it's not made in Canada hardly. I guess the third question, which is again by way of notice, is: would you in this process consider pursuing technologies into, for example, using recycled fibre in the creation of virgin pulp, if you are insistent in going ahead with these pulp mills? I don't believe you should be. Will you consider using at least 25 percent, for example, recycled fibres in those mills?

MR. KLEIN: First of all, they aren't my pulp mills. Okay? I just want to get that clear.

MR. CHAIRMAN: Hon. member, let's confine the questions, if we can, to the responsibility of the minister.

MR. KLEIN: The answer to the question is, again, that I would be very, very happy to discuss that and the other matters alluded to by the hon. member with him at some other time.

MR. CHAIRMAN: Thank you, Mr. Minister.

Member for Lloydminster, followed by the Member for Edmonton-Centre.

MR. CHERRY: Thank you, Mr. Chairman, and good morning to you, Mr. Minister.

I guess what I wanted to talk about was the reclamation sites again. I remember when your department first got involved in it. I was in the local level of government at that time, and we thought, "Well, here comes Big Brother in to tell us what to do again." I remember the meeting in the council that I was in. We felt that until your people sat down and explained to us exactly what their job was. I know in my own area that through the initiative of the department they have done a good job, basically in the gravel areas that were left unattended.

One of the things I asked about last year on the committee was the heavy oil and reclamation of the cleanup sites. As a matter of fact, that was one of the recommendations we put forward. I guess my question this morning is: what follow-up has been done on this recommendation so far?

MR. KLEIN: Well, if you're talking about the heavy oil zone, as you know, a reclamation bond has to be posted in that particular zone. I believe it's \$100,000. One of the problems, however, is that of small producers going in and not being able to upfront that amount of cash. The minister has some discretion to either waive the fee or to work out different payment schedules relative to that reclamation demand, but certainly in that particular zone, the heavy oil producing zone, reclamation fees are required.

MR. CHERRY: A supplementary I have is that when you look at the heavy oil - "sludge" is what we call it out there - that is continually being put on the back roads, as I call them yet today, have we not got some better technology than to just put it on the back roads? Because, again, it leaches out, and although today it may not be a problem, I foresee that down the road we're going to have that difficult problem. What are we doing about it? Are we doing anything about it or just allowing it to happen? Is there a method in which we can deal with it?

MR. KLEIN: Mr. Chairman, to the hon. member. This has been identified as a *very* serious problem, and it's been identified not only by the department as a serious problem but by the Canadian Petroleum Association and the Independent Petroleum Association of Canada. They are working with the department, those two associations, to identify technology that can be used to clean up these sites. Now, one of the ways, of course, to handle the contaminant is to destroy the material at Swan Hills, but they're finding this extremely expensive, and they feel that there are perhaps some better ways to deal with the problem in situ. This is what they're working on right now. I had a meeting not so long ago with the Canadian Petroleum Association and other members of the industry to discuss ways of joining forces with Alberta Environment and the Alberta research centre at Vegreville to address this problem.

MR. CHERRY: Well, thank you, Mr. Chairman. I can see that it's in good hands so ..

MR. KLEIN: It's not solely in my hands. As I say, this is an industry initiative, and it's a welcomed initiative because it has been identified as a serious problem.

MR. CHERRY: Thank you.

MR. CHAIRMAN: Member for Edmonton-Centre.

REV. ROBERTS: Thank you, Mr. Chairman. I, too, would like to pursue with the minister some questions in the area of future use of the trust fund, particularly with respect to funding, say through the capital projects division, in the area of recycling and other environmentally sound ways of diversifying Alberta's economy and keeping it environmentally safe and sound and on the leading edge. I'm surprised that the minister said he might have just been prepared to speak to the two things that moneys have been spent on. In fact, the Premier when he was here said, "I hope you'll have the Minister of the Environment somewhere on your schedule in the area of recycling." We've already gone over this ...

MR. KLEIN: You know, I'll leave it up to the chairman as to how far into this thing we want to go. I mean ...

REV. ROBERTS: Well, it's not just how far we want to go. I think one of the things that I'm concerned about, and we're a bit alarmed by in a sense, is that we're understanding that you're in the process of developing some comprehensive recycling plan for the province of Alberta, and I'm surprised that no attention has been given to the way in which the heritage fund could in a sense aid that comprehensive plan, because we certainly need to expand the province not only in the area of research, as the member's already said, but also, my understanding is, in some capital-intensive areas. So given the comprehensive plan that's

under way, is the minister saying that no consideration has been given to this trust fund ... Or let's put it in a more positive sense: what consideration do you think you could give to using the heritage fund creatively in the aid of your comprehensive recycling plan for the province?

MR. KLEIN: Thank you. Mr. Chairman, to the hon. member, I think this is worthy of consideration. Now, within the department the framework for a comprehensive recycling plan is now being prepared. This notion of using some money from the Alberta Heritage Savings Trust Fund to implement, to facilitate -I can think quite specifically that the value-added component of a recycling program might very well fit in. It's something that I'm willing to consider and discuss with you and the other hon. member and the members of the department to see if there's something we can initiate. I'm sure that kind of initiative would get some support because I know that the Premier and my colleagues in cabinet are quite enthusiastic about this particular program.

REV. ROBERTS: Mr. Chairman, this is the benefit of the minister coming to Edmonton, where we've had in this city with Jan Reimer and others on the leading edge of recycling projects, and we're very pleased that the civic level has been able to excel in this way. We are glad the minister now has seen the value of adding the New Democrats into the process of his consideration.

MR. CHAIRMAN: Excuse me, hon. member. I wonder if you would contain ...

MR. KLEIN: I commend the citizens of Edmonton, regardless of their political leanings, for becoming very, very involved in a good recycling program. I've said that publicly, and I've said that the city of Calgary has a lot to learn. [interjections]

MR. CHAIRMAN: Hon. members, if perhaps we could just hold the political rhetoric to a minimum and deal with the specifics that are before us today. Hon. Member for Edmonton- Centre, your second supplementary.

REV. ROBERTS: It's my first supplementary, Mr. Chairman. I said I was glad the minister was in Edmonton to hear these . . .

MR. CHAIRMAN: Okay. Proceed.

REV. ROBERTS: We'll pursue the value-added aspect of it. I'm also wondering if the minister could think that a useful fund of the trust fund would be in terms of a capital fund. I'm aware, in fact, that we perhaps could use a de-inking plant somewhere in the province, that with Applied Polymer having gone down the tubes, we could do some more in that area for plastics. Domglas in Redcliff we were just at last week. Again, I think industries which may be linked with economic development or other departments could really use a boost from a comprehensive recycling program that this minister would have, fueled with some extra funds from the trust fund, particularly through the capital projects division, for these kinds of things, to set up that kind of infrastructure.

MR. KLEIN: A reasonable suggestion, Mr. Chairman, and it will be pursued.

REV. ROBERTS: And then for a final reasonable suggestion,

Mr. Chairman ...

MR. CHAIRMAN: Is this in the form of a question?

REV. ROBERTS: Yes, as they all have been.

What further weight do you think could be applied to the trust fund for the minister's comprehensive recycling program, for in fact promoting within government or the public sector use of recycled products, and in a sense - I'm not sure, in fact, whether our own annual report for the fund has gone out on recycled paper. I mean, the research is here; the ability is here. Can the minister suggest ways in which the trust fund could be used to push this in the public sector, particularly in government circles?

MR. KLEIN: Mr. Speaker, I don't know specifically how heritage trust fund money might be used until we advance the program, but certainly some areas could be identified. The main thrusts, and this is the very basic framework of the recycling program, are first of all to enhance our collection capabilities and perhaps provide incentives for those communities like Edmonton that get involved and disincentives for those that don't.

Secondly, to - create an environment, if you will, for industry to establish here to add value to the recyclables: the de-inking plant that you mentioned, oil recycling plants, and so on, which, by the way, could serve to help deal with perhaps some of the land reclamation problems we have. One leads into the other.

The third component, of course, is to identify markets and create, perhaps, procurement policies. Within this institution, this would be a good place to start, and hopefully that would expand to other institutions such as universities and hospitals and municipalities and so on.

MR. CHAIRMAN: Thank you, hon. minister.

Member for Ponoka-Rimbey, followed by the Member for Westlock-Sturgeon.

MR. JONSON: Good morning, Mr. Chairman and Mr. Minister. I'd like to turn to the area of irrigation. Mr. Chairman, on July 31 of this year the minister, when speaking in the House, made reference to a cost/benefit report which was prepared some four years ago by the Irrigation Projects Association. I'd like to ask first of all if the point the minister mentioned in his comments has been acted upon. Namely, has this cost/benefit report been updated so that we have recent information on what people feel the cost benefits are of this development?

MR. KLEIN: No. There was a report prepared in 1984. It was assessed by a Dr. Marve Anderson in 1986, who basically confirmed that the cost/benefit analysis that was conducted in 1984 was valid in 1986. It has not, to the hon. member, been updated since, but we will endeavour to do that. It's just one of those things that has not been done.

Ostensibly, over a five-year period it's estimated that the province would receive about \$1.4 billion over the life of the project in taxes alone. There are some spin-offs that have been assessed, and that is the equipment that's bought, the product that is sold, and just the overall benefits of moving cash within a community as the result of irrigation. It's estimated the total expenditures related and the total amount brought in through irrigation in a local area accounts for about 15 percent of the impact. About 66 percent of that impact occurs to the province

and about 19 percent to the rest of Canada. These are the indirect economic impacts of irrigation activities in southern Alberta, and this, of course, doesn't take into account those intangibles. I mean, how do you attach a price tag to the enjoyment of an off-stream storage reservoir that has been made into a lake and stocked with fish, with picnic tables, and so on? So that's a cost and a price that really can't be calculated in dollars. But in terms of spending, the amount is phenomenal, and I would imagine those figures wouldn't have changed that much.

MR. JONSON: Perhaps I'd like to then follow up with a supplementary, Mr. Chairman. I've not read the report the minister had referred to, but I am concerned that one of the issues often raised when cost/benefit discussions are being held is that of whether or not the ultimate headworks or the major dams, the costs of those, are actually figured into the cost benefit of the irrigation network. Is the minister aware of whether, on a prorated basis, those costs were figured into this cost/benefit analysis?

MR. KLEIN: Yes, they were. That's very, very much a part of the equation, because you can't have one without the other. In other words, you can't have the delivery systems unless you have the main system.

MR. JONSON: One other supplementary then, Mr. Chairman. In the summer of last year there was some media coverage of the allegation that, on average, these irrigation rehabilitation projects were running 10 percent over budget. Is this still the case, or has this situation been sort of brought under control? Could the minister report on that?

MR. KLEIN: Well, I'm informed that everything has pretty well been brought back into line and we're on target. By the time we complete the program in '94 or '95, we should be not only on time in terms of meeting that deadline but on budget.

MR. CHAIRMAN: Thank you.

The Member for Westlock-Sturgeon, followed by the Member for Lacombe.

MR. TAYLOR: Yes. To the hon. minister, the hon. Ralph. I'd like to concentrate on the land reclamation partly. I've noticed out through the rural areas that the Department of the Environment, which is mostly responsible for cleaning out ditches and restoring drainage - as anybody who represents a rural area will know, a great deal of the time rhubarbs develop between different farmers draining water onto each other or vice versa, damming water. It is a problem, but one of the facts, at least in my investigation on a number of things, that doesn't seem to be taken into consideration: I was wondering if the Department of the Environment checks with the department of wildlife before they go ahead. Because with our declining wildlife population and the case of it tying into recreation and tying into tourism, sometimes I feel land reclamation sort of proceeds on how many acres we get back rather than what good we do. In other words, is it always good to fill in a gravel pit, or is it always good to drain land? In other words, there's the waterfowl, the recreation; is there some sort of system, or can you set up some system, that you check with each other?

MR. KLEIN: Yeah, we do check with Wildlife, but certainly not

in all situations, because there are many, many situations throughout the province where you have an extremely small pond that can be drained without affecting in a detrimental way farmers downstream. But whenever there's a body of water identified as a waterfowl habitat area, normally that water then is claimed to be public lands and is designated as such. If the farmer wants to then drain, he has to obtain a permit, and there is indeed an assessment - a mini environmental impact assessment, if you will - relative to the effect of that drainage on wildlife, on the downstream effects, on other farmlands, and so on.

MR. TAYLOR: My impression is that - and I think you answered it, in a way, when you said that Environment doesn't see it. Well, being an engineer myself, they don't see a hell of a lot of anything except the straight distance between two points, and turning an engineer loose with a permit to drain is tantamount to turning somebody loose with a machine gun on the environment. I don't think that you do - and I'm just making the suggestion that I think the department should check with Wildlife and Recreation on nearly everything. In other words, now it's left unless the engineer thinks he might lose his job or there's a hell of a rhubarb going on; then they do the checking. But I'm suggesting that it should be de rigueur or maybe practice to do it all the time.

But anyhow, to move on to another one ...

MR. KLEIN: I just don't know the extent, but I'm sure that on these very small ponds and so on we don't check, because basically the farmer or the owner can drain that land without a permit. If it's a substantial body of water, of course, it's declared as public land.

MR. TAYLOR: I'd like to see it be tougher, but let's go on to the first supplemental.

MR. KLEIN: I think I know exactly what you're talking about, because I had the opportunity of looking - as a matter of fact, it was in your constituency. I didn't land there, because I didn't have the opportunity of talking to you and receiving your permission, so we passed over the kingdom of Westlock-Sturgeon. But I saw from the air examples of what you are talking about, and I've discussed with Peter the severity of the problem and how we might address this situation, not so much from a wildlife point of view but certainly from the effects of drainage on farmers downstream.

MR. TAYLOR: I think it could be tightened up, but the first supplemental then.

We move on to the area of selling loam. Of course, we're near the city of Edmonton, or the metropolitan areas, and there's wonderful farmland around Edmonton. It seems that the Department of the Environment, who of course are responsible for land reclamation, should have more input as to whether or not loam can be sold from farms. We literally have loam mines developing around Alberta now, particularly near our cities, that literally ruin the land for farming. We can get permits for oil, for gas and gravel, but when it comes to literally ruining the land by taking off the topsoil, Environment does nothing. I put that as a suggestion.

MR. KLEIN: You're right. We don't have any controls, and I would like to know, really, the severity of the problem. You're

saying that it's a problem. I'd like to have the opportunity to examine the situation to see how severe it is.

MR. TAYLOR: Give me your budget. I could probably research it for you. But I'm asking you to ...

MR. CHAIRMAN: I wonder if you could come with your second supplementary, please.

MR. TAYLOR: I just pointed that out. I know the minister keeps saying that some things will come backwards, but that's like trying to drive a car by looking in the rearview mirror. I'm trying to get him to look through the windshield and see what the problems are down the road here a little bit.

MR. KLEIN: I'm looking through the windshield. Okay? It has not been ...

MR. TAYLOR: This is a problem. There's a hell of a lot of loam ...

MR. KLEIN: I don't get as many letters on loam as I do on pulp mills. As a matter of fact, I haven't had any. I mean, it really hasn't been brought to me as a concern, and it hasn't been one of those things, in all honesty, that I've discussed with the department.

MR. TAYLOR: Okay. I'll put one more alligator in your swamp then.

The last supplemental then, Mr. Chairman. Here again is that the tar sand plants use huge settling ponds that cover - I think the two plants there must cover now about 4,000 or 5,000 acres. There's a heck of a problem building up of a sort of combined oil, sludge, diatomaceous earth, clay type of thing there that we're going to have to do something with. Is the Department of the Environment looking into that or maybe even giving notice to the tar sand plants that they have so much time to clean this up? Because there could be as bad a fallout from tar sand mining as the old placer mines, if you've noticed, in California, where they ruined many valleys.

MR. KLEIN: Well, as you know, the point of reclamation is some time down the road. I guess one of the good things about that is that it gives companies like Suncor and Syncrude the opportunity now to participate, as they are, with the department and with the environmental research centre at Vegreville to improve the technology of handling tailings and sludge. There are all kinds of things being looked at, such as the freeze/thaw cycles and other methods of reclaiming that property. The one thing that we have working for us is time, and I can assure the hon. member that research is going on now as to how those tailing ponds are going to be reclaimed when the time comes.

MR. CHAIRMAN: Thank you.

The hon. Member for Lacombe, followed by the Member for Clover Bar.

MR. KLEIN: I'd be happy to share some of the research with you or to give you an update as to the kinds of things that are now taking place.

MR. CHAIRMAN: The Member for Lacombe, please.

MR. MOORE: Thanks, Mr. Chairman. To the minister. Given the fact that construction of the Oldman River dam has been transferred from the Environment department to public works and supply, has any consideration been given to transferring the irrigation headworks and main irrigation systems to the Department of Agriculture?

MR. KLEIN: This has been an ongoing debate, and certainly one of the opposition members has brought this up from time to time. I guess there is a clear division of responsibility, and in my mind there's a clear division of a program of water management and a program of agriculture through agricultural development, through irrigation. When you look at it in terms of pure water management, you look at the headworks serving as not only a method to get water to the irrigation districts but also as a method to manage water. We provide, for instance, in those irrigation districts water through the headworks and the main canal system to something like 48 municipalities. We use, in some cases, diversion weirs and dams and so on as flood control devices, water management devices to control flows, and to make sure that we retain our fair share of water in this province, because water is a transboundary kind of thing. We look at water management in terms of building and maintaining recreational sites, particularly in southern Alberta where the reservoirs have become more than just storage reservoirs. They have become, in fact, places for families to enjoy themselves and to participate in numerous recreational activities.

So I guess we look at the headworks and the main canals more as water management than just feeding the irrigation districts. It's a very, very extensive water management project in southern Alberta. Indeed, although the Oldman dam is not being built by the Department of the Environment, it certainly has become an environmental question and a matter of considerable controversy, and it all relates - well, not all of it but some of it - to irrigation and the question of whether there's a need for that water for irrigation. But a lot of it revolves around the question of water management and whether this is the right way to manage water, and that then becomes a pure environmental concern. That's why the headworks and the main canal leading off those headworks will become the responsibility of the Department of the Environment.

MR. MOORE: Mr. Chairman, that brings up another question. The minister referred to these facilities creating recreational opportunities surrounding them. In the Paddle River one we didn't take any money last year out of the heritage trust fund, but we've spent around \$42 million on it out of the fund. One of the objectives was to provide opportunities for recreation development. We say that, and now that we've had that dam in place for a number of years, has that become a reality? Has it created an area where the local people can benefit from the recreation that it's providing?

MR. KLEIN: Well, first of all, the Paddle River project isn't part of this particular . . . Can I just have one second, a small time-out here?

MR. CHAIRMAN: Yes, Mr. Minister. As the member outlined, that was a previously funded project, and in the last year we've not put funds into it. He's just seeking a response as to the recreation impact it's had, if I understand his question correctly. If you need a minute to ...

MR. KLEIN: I haven't been up there. [interjection] I'm advised - I'll have to get up there to see it, because it's just been described as something very, very nice, with fairly extensive boating, fishing, picnicking, and family recreational use. To what extent, I don't know specifically. I guess I'll have to get up there one of these days and have a look for myself.

MR. MOORE: Another supplemental, if I may, Mr. Chairman, to the minister. You know, we've had a recent growth of concern for the environment. We hear it every way we turn, and I think through this whole amount of attention being applied to the environment, we tend to lose sight of the reason for progress and what we're doing. When we build facilities or do things, there are always the environmental studies and the follow-up environmental studies and so on. But don't we do anything to do a follow-up and see the benefits of that and see if the positives aren't outweighing the negatives. We always hear environmental studies going to the environmental impact, but we never see any studies to the benefits of it.

MR. KLEIN: Well, Mr. Chairman, I think the hon. member is basically following up on the last question in a more general way. While I'm not familiar with the Paddle River dam project, the reservoir and how it's being used, I'm familiar with a lot of other projects that have come about as the result of irrigation, Heritage Savings Trust Fund moneys being spent to create recreational spots in southern Alberta, because I like to fish in those areas. I fish extensively in places like Lake Newell and down at Lake McGregor, another great fishing spot. All these lakes were created as the result of irrigation, and they've become jewels in an area of the province that was otherwise dry and completely void of recreational opportunities. So there are some beautiful spots. Another one that I haven't fished but I've walked around is the Forty Mile Coulee reservoir and Keho Lake. So I know these areas because I use these areas myself, and I see lots of other people using these areas. I look at the tremendous recreational development that has taken place at Carseland in the area of the headworks there, the weir. I see what's happening in the city of Calgary relative to the main canal and how that has become, in co-operation with the city of Calgary, a beautiful recreational area. I'm talking about the main canal itself, with pathways and passive areas and trees; it's a beautiful place for people to walk and to enjoy.

So I guess you're right; we should perhaps go back and maybe take a picture after the fact and say, "Yeah, there was some concern when these projects first went on stream, but let's look now at what has evolved and see how these projects are not only being used in a practical sense, in a utilitarian sense, but how they're being used for the enjoyment and the benefit of people."

MR. CHAIRMAN: Member for Clover Bar, followed by the Member for Calgary-Fish Creek.

MR. GESELL: Thank you, Mr. Chairman. Good morning, Mr. Minister. I wanted to ask about land reclamation first. Most of the projects you've listed involve irrigation canals - old ones - gravel pits, railway rights-of-way, and so on. I'm going to zero in specifically about abandoned landfill sites and on those situations where we reclaim those landfill sites. I'm looking a little bit further ahead, and I'm wondering if that situation is incorporated in land reclamation.

I'm asking specifically about where we have reclaimed the landfill site and then later on, after that reclamation has been

undertaken, we find there are some concerns with that site. We may have some leachate problems or some concern about contamination of the surrounding environment. To me, that reclamation may not have been completed, because we have to go back and do some additional work. Is the scenario I have just outlined for you included in those 400 sites that are left to be done, or are they additional sites we find out as we go? I assume we find out as we go. Is that part of the present program, going in after the site has been reclaimed and actually restoring it to complete that reclamation?

MR. KLEIN: Yes, it's part of the program, but administered in part by another program called HELP. That's the Help End Landfill Pollution program. But certainly the inspectors will go in, and if it hasn't been properly done, then funding under this program will make sure it is.

MR. GESELL: Mr. Minister, I'm not indicating that it hasn't been properly done. I'm indicating that there might be some problems that arise in the future. But my question really relates to the equation we find when we look at the economics of landfill. To me, this cost of actual final reclamation, the reclamation even after some problems with leachates occur, should be put into that equation. Are there some numbers you could provide that would give an indication of how much funding is allocated for the restoration? And I use restoration of old landfill sites, where we are experiencing some particular problems.

MR. KLEIN: Mr. Chairman, to the hon. member, we have identified about 400 sites. How many of those are landfill sites and how much money would be designated solely to those sites that are landfill I really don't know at this particular time, because we simply haven't done that separation. But I'm sure we could if you wanted those figures. Your point, I think, is well taken, because we are now getting into this whole notion of recycling and waste management in a real way, and at the same time we are designating money to look at landfill sites and so on and what we can do with them. So I think one sort of leads to the other. But we can provide you with that information, I'm sure, if you want a breakdown. I just don't know how many of the 400 sites are landfill sites. I don't know if you do, Peter. No. Okay, we'll get the information for you.

MR. GESELL: Mr. Chairman, I will pursue that separately. Thank you.

I want to switch gears a little bit and go into some federal funding and ask for some indication from the minister on that. I know that in the past - I read from the minutes, *Hansard* actually, of the last discussion with the previous Minister of the Environment - there was some discussion about federal funding. I know that Saskatchewan has received some federal funding, basically for the irrigation projects. Are we, Mr. Minister, actively seeking federal funding, and have we been successful in getting some funding for some of these projects?

MR. KLEIN: If you are talking about irrigation projects, no, save for those projects that affect Indian lands.

MR. CHAIRMAN: Thank you.

Member for Calgary-Fish Creek, followed by the Member for Calgary-Foothills.

MR. PAYNE: Thank you, Mr. Chairman. I'm rather hopeful you'll extend to me the same latitude you extended to the members for Edmonton-Centre and Edmonton-Meadowlark, but I hasten to add that my questions are indirectly related to the question of land reclamation, which of course is the heritage fund related responsibility of the minister.

My questions flow from comments made by the Premier - and I believe the Member for Edmonton-Centre alluded to those same comments - wherein the Premier told us that he believed the environment offers a number of excellent opportunities with respect to diversification and economic development. That's an opinion with which I agree wholeheartedly, and I'm encouraged that some of the opposition members share the Premier's vision in that respect. In particular, the Premier said that the minister was looking at opportunities in the areas of recycling. Now, earlier today the minister made reference to a major recycling study that's now under way. I'm not trying to get a premature peek at what those program recommendations are, but I'm wondering if the minister could share with us, just in broad-gauge terms, what sorts of recycling opportunities are being considered.

MR. KLEIN: Well, virtually all recycling opportunities are being considered. And I say "considered" at this particular time, because I think we've got to identify what we can reasonably accommodate in terms of encouraging and providing incentives for recycling industries. But we're looking at oil, we're looking at tires, we're looking at batteries, we're looking at glass, we're looking at paper, we're looking at plastic ... [interjection] We're looking at politicians. So virtually we're looking at anything that is recyclable.

Basically, there are three components to the program, and this is very, very preliminary at this point. That is to do a full examination of our collection systems and, as I mentioned earlier, provide incentives for those communities that want to get involved in the collection of recyclables, to ensure that we have a supply, and perhaps provide some form of disincentive for those communities that want to do things the old-fashioned way; secondly, to create an environment that will attract to this province the kinds of industries the Premier talked about that would take these products and turn them into something else, something of value; and thirdly, to bring into place a program of procurement and a program of marketing to sell these products elsewhere and to use them within our own institutions and industries and so on within our own province. So that's the basic framework for the program.

MR. PAYNE: Well, Mr. Chairman, as an expression of gratitude for the latitude you have extended, I'll limit myself to one supplementary, but that supplementary is related, I believe, to the broader question of land reclamation. I'm wondering if the minister would be prepared to comment as to what effect a major recycling program, such as the one he has now referred to, albeit briefly, would have on our need for landfills, which really is one of our environmental sore points.

MR. KLEIN: Well, the whole thrust of the program, of course, is not only to create a new economic diversification opportunity but to reduce the demand for landfill, and that is becoming an extremely serious problem in this province. One only needs to look at the Aurum site and the controversy surrounding it and the site at Pine Lake and the site in the Athabasca region. They are just tremendously difficult issues to deal with, and very

basically, if we could find a substitution for landfill, I don't think we would have to put up with these problems. I guess you can make landfill sites as environmentally acceptable as possible, but the fact is that they are still unsightly, very, very hard to manage, and nobody wants them.

MR. CHAIRMAN: Thank you, Mr. Minister.

Member for Calgary-Foothills, followed by the Member for Edmonton-Avonmore.

MRS. BLACK: Thank you, Mr. Chairman. Good morning, Mr. Minister. As a person that hasn't had much exposure to irrigation facilities, I have a question as far as the irrigation system improvement program. On July 31 of this year during the debate on estimates, you made a reference to a cost/benefit report which was prepared four years ago by the Irrigation Projects Association. At that time you indicated that it could be updated, and I'm wondering if in fact the report has been updated.

MR. KLEIN: No, it hasn't been updated yet. I'd replied to one of the other hon. members that there was a bit of an update. There was a review of that report in 1986, and the person who reviewed the report considered that what was in place in 1984 would have been valid in 1986, and probably would be valid today. I will give an undertaking to have that report updated, but I really don't think things are going to change that much. They will change significantly if we don't spend the money to upgrade the system, because if the system fails, of course all the economics related to the system go down the tube as well.

MRS. BLACK: I guess that leads to my supplemental question, Mr. Minister. It seems to me we've been involved in rehabilitating and upgrading and developing and enhancing irrigation projects for many, many years. I'm wondering, is there an end to this where the province will not be involved with further development of irrigation projects. Can we see an end timing, or how many more years are we going to be actively involved in the development of irrigation systems?

MR. KLEIN: Well, we're about 70 percent complete on the rehabilitation program. We're now on target for a completion date of 1994, 1995, and we're on budget and should be out of it. Now, that's not to say we're going to be out of it for good, because like everything else, there is some deterioration and we're going to have to look at these situations as they occur. But for the main part, we will have restored and rehabilitated the headworks and the main ditches.

MRS. BLACK: There's been some criticism of our programs, that we have had some ...

MR. KLEIN: And these ditches were 60 years old. So what I'm saying is that yeah, maybe 20, 30, or 50 years down the road we might have to go through that whole exercise again, or maybe we can put in place a program of regular upgrading and maintenance and so on. That, you know, hasn't been developed at this particular time, but no doubt the department is working on it now to make sure that what we put in place in terms of the capital sense will have a full-scale maintenance program so we don't have to go through this to the same extent in another 40 or 50 or 60 years.

MRS. BLACK: Do we have a feel when we're at completion what the total capital commitment will have been from the province?

MR. KLEIN: It'll be in excess of about \$550 million.

MR. CHAIRMAN: Member for Wainwright.

MR. FISCHER: Thank you, Mr. Chairman.

MR. CHAIRMAN: I'm sorry. That's not correct. I called on the Member for Edmonton-Avonmore prior to that, so would you follow her, please. I made an error there.

MS M. LAING: Thank you. I guess my question again to the minister is: I'm really interested in process rather than outcome. In fact, I believe if the process is clear and open and public, then we can have more confidence, as the people of Alberta can, in outcome. So I again go back to the issue of site development and reclamation of lands.

I would ask the question then: how are sites chosen for reclamation and development - that is, not simply for aesthetic purposes? Do the developers go to the municipalities, who then go to the fund to prepare the sites for future development? That is, is there a specific development in mind, and would that be open to all developers through the municipalities? Or is the site reclamation and development done on a somewhat speculative basis, to see who would then come forward to use the land?

MR. KLEIN: Well, I imagine that in a case or two - I don't know specifically - a developer could go to the council and say, "Look, if you can reclaim this land, I'll develop it." But I can't see that really coming about. That's normally not the way things would proceed. Normally a municipal jurisdiction - be it a municipal district, a county, a town, or a city - would identify a site and would say: "First of all, this is an unsightly site; secondly, we think there is a danger or a risk to health here; thirdly, we think perhaps it's an unsafe site, that there's an opportunity for someone to become injured on that particular site."

MR. McINNIS: What's the second thing?

MR. KLEIN: Health. You know, it could be giving off fumes or something like that. I guess one relates to the other; it's safety. But I'm talking more about safety in terms of someone falling into a pit or becoming injured on scrap metal or something of that nature.

And then they would come to the department. They would say: "Look, we have this site. We know who owned it 60 years ago, but the family's since passed on and it's an abandoned site. It's an orphaned site, and we need some help to clean it up." That's basically the way it would come about.

MS M. LAING: Then theoretically, if in fact a site was reclaimed, it would be open to any developer. Would you then have some kind of criteria in terms of assessing future development that would be used on the site that has been reclaimed so there wouldn't be further environmental degradation?

MR. KLEIN: Well, certainly on our own sites we would be the determining factor in its ultimate use. Most of our sites, I think, go to recreational activities and so on. But if it's a municipal

site, that's entirely up to the local jurisdiction.

MS M. LAING: Thank you. I would also note that in your answers to estimates you were, through research, getting answers on how to minimize industrial impact as well as assist in cleaning up the mess afterwards. I would ask a couple of questions out of that then. The information you would get on assessing and determining in advance what the industrial impact of a development may be - would you then feed that into a department to be used in assessing the prospective impact of a development? Again, in the context of that, in view of the fact that more than \$2 million has been spent for land reclamation at Coleman in terms of the mess that was created there, would the department say absolutely no to an application by a company to reinstate the coal tippie production, which made the mess in the first place? [interjections]

MR. KLEIN: Well, that's fine. And that's a good point. In that particular case, that reclamation project was not funded through this program, because it would have eaten up the program. I mean, there would be nothing left for anything else. That was a special-case program. But certainly in that case the province is the determining agency as to what happens to that land, and unless the municipality wants to buy it from us or make some kind of deal, we can pretty well dictate what that reclaimed land will be used for. Right now it's passive use, although the MLA for the area has indicated that perhaps some housing could be accommodated on the site, some park development, maybe a golf course development if it can be combined with the existing golf course across the highway. But certainly relative to that site, it's the intention of the department that it should be kept for nonindustrial use.

MR. CHAIRMAN: Thank you.
Member for . . .

MR. KLEIN: We can make that discrimination, and I think that where we're so involved, we could indicate to the municipality that we would like to see the land used in a certain way. I think we would have that kind of weight and authority.

MR. CHAIRMAN: Member for Wainwright, followed by the Member for Edmonton-Meadowlark.

MR. FISCHER: Thank you, Mr. Chairman, again, and good morning to the minister and his staff.

I don't want to beat this land reclamation thing to death, but I have a little concern about the new reclamation sites. It has been suggested in the past that abandoned irrigation ditches, roadways, railways, and so on could be included at some time in this program. I have a situation where the railway beds have been built for years and years and never did have a track on them. The railway is now selling this land back to the farmers - at a fair price as well, I might add. Is there a chance that private owners like that would be included in this program?

MR. KLEIN: I'm not sure what you're driving at. You're saying that once the private owner has bought the old railbed from the railway, would the department then go in and assist in reclaiming that site under this particular program? No, I don't think so. Because, you know, what we do is try to identify sites where there is no owner to take responsibility. Here the previous owner can be clearly identified as the railway. So I

think that would have to be a negotiation between the landowner and the railway to have the site reclaimed before the person buys it.

MR. FISCHER: What kind of pressure would we put on those people?

MR. KLEIN: It certainly doesn't apply to private land, and I don't know where it would be, because if it's privately owned, we then can identify the owner and the person deemed to be responsible. So these are basically on municipal lands and government lands and ...

MR. FISCHER: The farm people who are buying this land, then, would also be buying the responsibility of reclaiming that if we should see fit to make them do so?

MR. KLEIN: Yeah. Well, I don't know if we can force them to do it, unless it poses an environmental problem, and then of course we can apply whatever Act is appropriate to have the site cleaned up. If it poses a safety or a health problem, then of course we can do that, but if it's just a mound of dirt and is not bothering anyone, there's not much we can do about it.

MR. FISCHER: Thank you.

MR. CHAIRMAN: The Member for Edmonton-Meadowlark, please.

MR. MITCHELL: Thank you, Mr. Chairman.

In the most recent annual report of the Heritage Savings Trust Fund, page 9, it is reported that Millar Western pulp mill, Millar Western Industries Ltd., received a loan of \$120 million from the heritage trust fund to build "the world's largest and most technologically advanced bleached ... CTMP mill at Whitecourt." The investment to March 1989 was \$120 million. I wonder if the minister could confirm that he is as dismayed as we are that heritage trust fund money should be utilized for a project of this nature, and that he will advocate in every way possible through his position ...

AN HON. MEMBER: That's off the topic.

MR. MITCHELL: ... to ensure that heritage trust fund money is never again utilized to promote a project of this nature. And if that's off the topic, Slave Lake, I don't know what is on the topic.

MR. KLEIN: People say they like that mill. It's a CTMP mill.

MR. MITCHELL: That's a frightening... Have you heard of BOD?

MR. CHAIRMAN: Hon. member, you have to ask the question and you have to wait for the answer.

MR. KLEIN: [Inaudible] it's employing people; it's meeting environmental standards. As a matter of fact, they're going to be doing some significant upgrading.

MR. TAYLOR: An atomic bomb plant would employ people too.

MR. CHAIRMAN: Order please, hon. member. Has the minister finished his response?

MR. KLEIN: I can't believe this.

MR. MITCHELL: Why...

MR. CHAIRMAN: Is this your supplementary?

MR. MITCHELL: Yes.

MR. CHAIRMAN: Thank you.

MR. MITCHELL: Why has the minister's department not taken the initiative, as was done by the Economic Development department in the Millar Western case, to propose the use of Heritage Savings Trust Fund money in promoting, in supporting a recycled paper plant, for example, or other environmental demonstration projects which would be very appropriately funded by this fund and in fact would preserve our environmental heritage, would diversify the economy, and would create jobs as well?

MR. KLEIN: Well, first of all, the assumption that we have done nothing is absolutely wrong, because at least the last I was notified we are still in negotiation with two companies now to create deinking plants in this province, one in Edmonton and one further north, along with paper production plants.

MR. MITCHELL: Are you going to answer that?

MR. KLEIN: Yes. We're in negotiations now with a couple of companies, and thus far it hasn't involved any infusion of cash by the province of Alberta. It might. And as I told the hon. minister earlier, I think his suggestion is worth pursuing. As we develop our comprehensive recycling program, perhaps there might be an area to apply Heritage Savings Trust Fund dollars to develop a recycling industry in the province.

MR. MITCHELL: AOSTRA is a model for creating pursuing ...

MR. KLEIN: Right, and we're looking at AOSTRA in terms of what we're developing relative to the comprehensive recycling program.

MR. MITCHELL: Could I propose that perhaps a similar organization, perhaps called AOPERA, could be structured to do research specifically into - in addition to things we've talked about before - technologies to reduce the emissions of current and existing pulp mills to zero? Fund perhaps joint research projects with the industry, focusing industry attention, creating regulations and standards they have to meet that say zero pollution for existing mills by a given date?

MR. KLEIN: Fine. I would love that. And you know what? I would love it if we could also create zero pollution for human waste too - you know, the stuff we put down the toilets every day. Let's try for that as well. Because you've got a big problem right here in the city of Edmonton just as serious as any pulp mill project; I'll tell you that for sure.

I'm sorry, Mr. Chairman. I really didn't mean to get off the track. You know, there are problems all over the place. But the

fact is that scientists at the Vegreville research centre are doing a lot of research right now into pulp mill discharges and trying to bring the pollution levels as low as possible in terms of chlorine substitution and oxygen delignification, extended delignification, and even getting the AOX count down as low as possible. So that research is going on, and perhaps the hon. member should take a little trip out to the research centre and find out what kind of work is taking place there. I'm sure Mr. Fox would be glad to show you around.

MR. CHAIRMAN: Member for Edmonton-Centre.

REV. ROBERTS: Yes. Mr. Chairman, I'd like to quiz the minister again in areas which aren't cited - for instance, land reclamation, irrigation, and so on - but to suggest to the minister that as this committee continues to meet over the next few weeks, we're going to have a number of other ministers come before us who have allocations under the fund and who are grappling with a number of issues to do with the future of Alberta and the place of the trust fund in terms of their mandate, their portfolios. I think it's important - particularly given the sense today, more than ever, about the need for environmental protection and promotion in all walks of life and all public policy - that, in fact, we get some sense from this minister here today about some of the issues which may impact on the environment with respect to the spending and policies of other departments, and so to look at sustainable development in a sort of global sense and environmental protection and the number of different departments. Of course, Energy's coming, public works is coming, Health is coming, medical research is coming, forestry is coming, as we're alluding to. Just for the sake of co-ordination and for the future of our children in the province, I'd like to address three questions from the minister's sense of these three different areas, the first one being Health.

Now, we have under the spending of the Department of Health trust fund dollars for the Walter C. Mackenzie, a major urban hospital; medical research in a number of different areas; as well as what we're probably going to be expecting in terms of expansion to the Tom Baker Cancer Centre and cancer research. I'm of the mind that there's very little awareness of how environmental factors impact on health, although I did hear out of the Hyndman commission, which is about to report, that in fact in the future the environment is going to have more to do with health than hospitals will. We still live in a day with auto emissions and toxins and industrial and residential wastes and all the rest. So I guess I'd just like to, in this first go-around, ask the minister if he would have any recommendations or sense of the ways in which medical research or applied research or so on needs to really be cognizant of some environmental factors and some environmental issues to improve the health for Albertans.

MR. KLEIN: Well, it's becoming more evident, as the environmental agenda expands, that there has to be a much closer relationship with departments such as the Ministry of Health, such as Forestry, Lands and Wildlife, such as Energy, because these things are all intertwined and interrelated. So I guess what we're trying to do in this whole environmental field is provide an agenda for ourselves as to what, first of all, the government thinks should happen in an environmental sense 10, 15, 20 years down the road; to draft a framework perhaps for legislation that could take into account all these matters that you have mentioned; to take that framework out to the public to get a tremendous amount of public input into it; and to determine as

a legislative body whether in fact that is the environmental agenda we want to set for ourselves, taking into account all these factors that you have identified: Health; Energy; Forestry, Lands and wildlife. But I just don't know what the answer is right now. Certainly we'll take, you know, the Hyndman report and we'll look at that, because we know that report says a lot about the environment and its effects on health, something, as you mentioned, that we haven't considered before. So as we develop our environmental agenda, we're certainly going to have to take into account all these factors, perhaps factors that weren't considered in the past and should have been.

REV. ROBERTS: Well, I appreciate those comments in a general sense, and you certainly have the commitment of us in the New Democrat caucus to give these a very high priority and to give them a sense of specific proposals and projects. As well, it would come out of them not just at a lip service level.

Another area - it's a bit vague, I guess, at this point again, but we have the whole area of Recreation and Parks and Public Works, Supply and Services for Capital City Park and Kananaskis and the whole area of provincial parks, which I'm told we still have fewer of in Alberta than other provinces, although I guess the national parks help out in that sense. But the whole issue around development within parks is another one which I'm sure you're aware has some environmental issues related to it in whether they're ecological reserves or private lessees doing different things within the parks. You know, Sunshine isn't an issue for us, but it's symbolic of this kind of issue. Again I'm wondering, from an environmental point of view and giving a high priority to this developing agenda, whether you'd have any specific recommendations in the area of spending under parks and recreation for the fund.

MR. KLEIN: No, I don't have specific recommendations. But again, in developing this agenda I think we have to take a look also at "there's another one we can add." I just don't want every portfolio under the sun under the Department of the Environment. There has to be some division of responsibility. Certainly the whole issue of ecological reserves is one that is closely related to the Department of the Environment, and perhaps there needs to be more interaction. But these are the kinds of things that we're going to have to look at, where that coordination occurs.

You're asking me specifically about whether we need more ecological reserves or whether we have enough. I really don't know. I don't have that information with me; I haven't talked to the minister about it. It's been a question that has been raised at various town hall meetings. Some people say that we have enough; some people say that we don't have enough.

REV. ROBERTS: A final area. I don't know whether to go into energy or into forestry in terms of these juicy issues, but I think it is important to begin to look at - not that you can have a superminister - how you dialogue with other ministers and how we as a Legislature grapple with some of these issues which do need better linking.

So let me focus on the forestry one. My colleague has already, in a sense, raised it somewhat, but I'm wondering on a specific issue, with your developing this comprehensive recycling plant, particularly with respect to recycling of paper. Yet we have the department of forestry selling off cheap trees, basically, and bleached kraft mills, the whole development of which, if nothing else, deters the production and marketing of recycled paper. I

think this is a classic error, that if we do make some recommendations in this regard to do some research into value-added or into recycling industries, yet we have on the other side a whole forestry development which basically undercuts any kind of economy of scale in this regard, it seems that the two sides just aren't talking and it's really just whistling in the dark on a very important issue. When the minister of forestry comes before us, we're going to be asking questions, and we'd like your sense of the kinds of questions that should be asked.

MR. KLEIN: Well, certainty in the development of this there's a lot of conversation going on between, certainty, the deputy ministers and assistant deputy ministers and the staff people who are involved in preparing the framework for this particular program. And certainly it relates to the amount of forest development that's taking place and so on. But you've got to understand that not all paper is recyclable paper. No doubt you read, like everyone else, the ... [interjection] Pardon me?

REV. ROBERTS: I think we get lots of newsprint.

MR. KLEIN: Well, okay. But why don't you, as I say, tell the people at *National Geographic* and *Equinox* and the great ecomagazines, who tell you the same thing, to quit using it? Like this ... [interjections]

MR. CHAIRMAN: We don't have a dialogue. If you let the ...

MR. KLEIN: [Inaudible] business, too, and all the university law books on environment that are done on bleached kraft papers.

MR. MITCHELL: You're right. And it should stop.

MR. KLEIN: Well, fine. I agree with you.

MR. CHAIRMAN: Hon. member, we'd like to recognize the Member for Ponoka-Rimbey. [interjections] Please, let's not get a dialogue going or we'll lose the continuity of our meeting. I'd like to recognize the Member for Ponoka-Rimbey.

MR. JONSON: Mr. Chairman, one of the past projects of this section of the Heritage Savings Trust Fund concerns the Lesser Slave Lake area. The expenditure there, as I understand it, was completed some years ago, and certainly there are obvious benefits from that project in terms of the reclamation of agricultural land, some preliminary development in terms of recreation potential and so forth. But my question about all of this relates, first of all, to the objectives of this project, which were to control flooding around the lake and to reclaim land and so forth, and what appears to be the continuing problem of flooding around Lesser Slave Lake. Now, perhaps one project cannot solve all problems, but I wonder, Mr. Chairman, if the minister could, in terms of flood control around Lesser Slave Lake, outline what the money that was spent was supposed to accomplish and whether it has accomplished that in terms of flood control.

MR. KLEIN: Well, yeah, it has accomplished - and it has ameliorated to a great degree flooding in that particular region. But other problems have since cropped up that we're going to have to deal with. That is an extremely sensitive area to deal

with, and sometimes when you try to correct one problem, you create other problems. I was up there just two or three weeks ago to look at some fast-flowing water problems that are leading to, perhaps, too much water in Lesser Slave Lake and some silting problems and so on that we're going to have to address down the road.

Insofar as Lesser Slave Lake, that problem in itself has been solved, but there are other problems now starting to occur that are not necessarily related to the Department of the Environment. There are all kinds of factors that figure into it. There are energy developments in the Virginia Hills and in the Swan Hills; there are forestry developments that contribute; there's some of our own work; there are flash floods and just a tremendous amount of rain this year. But we have a small task force established to work with the farmers in the east Prairie River area and in Lesser Slave Lake to see what can be done over a long-term span of time.

MR. JONSON: Mr. Chairman, I thank the minister for that answer, and I think that my second question has been partially answered in that the minister has referred to a task force. But perhaps I could just ask this to deal with a concern that I have, and that is: who is taking responsibility now for addressing this multitude of problems? This task force: is it your task force, Mr. Minister? And you've been given the job, I take it.

MR. KLEIN: Well, I guess we assigned it to ourselves. The problem was identified through my office, so we've taken on the project. It clearly is an environmental problem, and it's got to be solved over the long term. Bits and pieces of the problem have been solved, and in some cases - I'm not saying in all cases - the solution of one problem has resulted in another problem elsewhere. So I think we've got to take a good, hard, long look at this situation in north-central Alberta and come up with some permanent solutions.

MR. JONSON: Thank you, Mr. Chairman.

MR. ADY: Thank you.

Member for Westlock-Sturgeon, followed by Member for Clover Bar.

MR. TAYLOR: First, Mr. Chairman, it's not in the way of a question, but I wanted to compliment the minister for nearly two hours without sucking on a cigarette. I was just wondering if this is an indication that the Department of the Environment has become a clean air department.

MR. KLEIN: Pretty well. It's getting there. I'm seeing the light.

MR. TAYLOR: I want to touch, just after that left-handed compliment, Mr. Chairman - I don't mean to insult the NDP when I say it's left-handed. Nevertheless, the question of land reclamation again comes up, and it ties into irrigation and water. Recently there was an article in the *New York Times*. They did some research in Texas where they've used sprinkler systems a lot longer than we have up here, and they're finding actually more land now going out of production than under the old ditch system, which had desalinization problems. The sprinkling being done often in the middle of the day and the fast evaporation leaves salts on the surface of the soil that then concentrate and leach down in. It did happen to get my attention, Mr. Chair

man, because just a few weeks ago for something to read one evening I picked up all the research papers on soils done by the Department of Agriculture and the university over here the last couple of years, and a couple of the people doing their masters theses complained that the money had run out when they couldn't test the soils, or in soil testing that the government wasn't putting up money to monitor the amount of chemicals that are contaminating our farm soils, either from water foul-up from sprinklers or from pesticides or herbicides. Now, in this question I'm just wondering - it comes under both your headings: land reclamation and water. What kind of an ongoing monitoring system are you using to test farmland to see those three areas: the residue from pesticides, herbicides, and sprinkler or irrigation?

MR. MacNICHOL: Well, Mr. Chairman, you know, that's a real good question, and when you get down to talking about pesticides, that's one that we are definitely working on with Agriculture and the federal government, who registers all these pesticides, and we're getting a better handle on use of pesticides. We want reduction. There are certain types of pesticides that won't be used. With regards to putting water on the land when it's not required, conservation, you know, is very much on our minds, and in fact a lot of money has been spent on preventing too much water from leaching from the canals. Alberta Agriculture spends a lot of money on this business of chemicals on the land, and - I don't know, I could go on and on. Peter, do you have anything else?

MR. MELNYCHUK: On the question of desalinization, there is monitoring going on as to the extent of land that is affected by salinization through irrigation. Actually, with more recent technologies we are recovering some of the land that was salinized as a result of overirrigation through gravity, and there are new techniques now in order to be able to do that. With the use of sprinkler irrigation there is less water being applied, so the salinization isn't as bad as it used to be under the gravity process. There are also new developments in terms of sprinkler design that assist water conservation in terms of the evaporation problem. So I think that there is progress being made. One of the difficulties, of course, in southern Alberta is that much of the land that's salinized there is dryland salinization, and that's a bigger problem.

MR. TAYLOR: Back in 1981 - to get off of salinization. I wanted to use that as an example; we are conquering salinization. But this new problem of trace salts and rare salts coming out of a sprinkler, as well as pesticides and herbicides clinging onto the surface of the land is what I wanted to get to, and I think there again we're looking in the rearview mirror rather than ahead. We're waiting until our land gets destroyed and then we'll try to research. I was just thinking that there should be monitoring, as we monitor the air, to see whether there are any changes. We don't seem to be monitoring the chemical makeup of the soil, that top six inches, from time to time.

But to go on to the second question. Also, I noticed when I was reading the papers that the money had dried up for the researchers that were monitoring runoff. This is surface runoff in the creeks and ...

MR. KLEIN: Are they Alberta researchers?

MR. TAYLOR: Yes; these are students at the university that

write their masters and doctorate theses. They depend on funding from the Alberta government, the Department of Agriculture, and sometimes Environment, and so on. But one of the things that we should be doing is monitoring the amount of runoff of herbicides and pesticides in the local drainages and the rivers; in other words, going along. We do it now for sewage. You have coliform counts, for instance, to see how your sewage is doing in the water.

MR. CHAIRMAN: Hon. member, I think you're digressing, unless you're tying this into irrigation in some manner.

MR. TAYLOR: I am trying to tie it to irrigation and land reclamation. In other words, it's quite important to monitor how much is coming off the land, herbicides and pesticides, because that means surplus chemicals, quite honestly, and we don't seem to have - at least I don't, and this is why I'm asking. Do these people have an integrated system of monitoring surface runoff every half a mile or every mile or whatever you want to call it on drainages to see whether the surface drainage is building up with too much herbicide and pesticide and fertilizer?

MR. KLEIN: I think Mr. Melnychuk can respond to that in a satisfactory fashion.

MR. MELNYCHUK: Yes. In respect to water quality, there is a monitoring of water quality and quantity on all the return flows from the irrigation districts.

MR. TAYLOR: That's just at the end of the irrigation districts?

MR. MELNYCHUK: At the end of the irrigation districts, so that anything coming back into the river from the system is monitored on quantity and quality. Also we have an interprovincial water quality and quantity agreement with Saskatchewan that monitors the water quality continuously at the border of all the eastern-flowing streams in the South Saskatchewan River basin, and the records and the results of that monitoring are published annually. This is for irrigation.

MR. TAYLOR: But not outside the irrigation areas.

MR. MELNYCHUK: Well, no. The rivers at the interprovincial border points are monitored.

MR. CHAIRMAN: Your final supplementary, hon. member.

MR. TAYLOR: My final supplementary is back to monitoring again. This is the freshwater aquifers. Now, in Germany and France they waited too late, till the aquifers became quite contaminated with fertilizer and herbicide leaching down into them. Also there is the question of hydrostatic pressure. On an aquifer, as you know, if you get a deep pressure, it has a tendency to suck the surface down; if it overpressures, it maintains itself. In other words, how much is it being charged from the artesian wherever the water input is coming into the aquifer. I am under the impression that we don't have an ongoing analysis of all water wells or aquifers to see whether or not there is any buildup or any change. It's so important to catch it quickly, because once an aquifer starts taking on exterior chemicals, whether it's fertilizer or herbicides, it's sometimes very hard to reverse the [inaudible]. Do we have an ongoing monitoring system that way?

MR. KLEIN: Well, we're getting that information. There is a report being prepared now that should be in my office very soon relative to a program to implement the kind of monitoring system you refer to and relative to the activity that's taking place now. I'll let Peter respond.

MR. MELNYCHUK: There is a groundwater monitoring network, not as extensive as we'd like to see it, and obviously we need to enhance that. But there are 130 groundwater wells that are specifically installed for monitoring aquifers across the province. We'd like to see that expanded to much more so we have a better handle on our groundwater resource.

MR. CHAIRMAN: Thank you.
Hon. Member for Clover Bar.

MR. GESELL: Thank you, Mr. Chairman. In my last question - and I know time is limited here - I talked about federal funding, and the minister's response, I believe, was that we have not received any federal assistance on some of the irrigation projects. My question to the minister is: are we actively seeking federal funding?

MR. KLEIN: There are some negotiations that are under way relative to the water development agreement. This, of course, involves Alberta in our water management policies in the allocation of water to Saskatchewan and other jurisdictions where water flows from the Eastern Slopes, but that's about the only thing that's being pursued at this particular time.

MR. GESELL: Mr. Chairman, maybe I'm asking for some speculation here, but in light of the fact that we do have a heritage fund, does that maybe inhibit us in accessing some of the federal dollars that may flow to other provinces? I wonder if the minister might react to that.

MR. KLEIN: It doesn't stop us from going after it. To put it bluntly, it's somewhat more difficult for this province. That doesn't stop us from going after the federal government, and it doesn't stop us from referring to programs that have been initiated and other programs that could just as well apply here. You know, when they see that chunk of money, they say, "Well, you don't need our help." But there are some areas now where we are participating. In the land reclamation area, as a matter of fact, the ministers of the environment and the federal Minister of the Environment just put into place an agreement in principle last week in Charlottetown to establish a fund of a quarter of a billion dollars to reclaim sites throughout the country to be funded on a 50-50 basis. Access to that fund will apply equally to Alberta on a per capita basis, so we're going to get our fair share out of that particular program, and that's a significant program, because while we have identified some 1,150 sites that either have been reclaimed or are about to be reclaimed - and these are smaller sites - there are about, I think, nine or 10 fairly major sites in the province of Alberta that have been orphaned and have to be reclaimed. The expenditure of money is going to be huge, so it's going to be nice to be able to draw on 50-cent dollars from the feds.

MR. GESELL: Well, if I understand the response correctly, I guess it's tougher for us in Alberta because of the fund.

MR. KLEIN: Well, in answer to your first question, it's tough.

It's tough on specific projects where there isn't in place a provincial/federal agreement involving all the provinces. When you are dealing one on one, you're right; it's tough. And I think it's a reasonable assumption to make that having the fund works to our disadvantage in some cases.

MR. GESELL: Thank you, Mr. Minister.

MR. CHAIRMAN: Thank you, hon. minister, for your time today to come and appear before our committee, and for your forthright answers. We realize that we have strayed a little from the mandate, and we appreciate your officials who have come to be here with us today, as well.

Does the hon. member have a point of order?

MR. MITCHELL: Yes, Mr. Chairman. I would like to concur in what you are saying, but I would also wonder whether you would ask the minister whether he would consider returning before this committee, because my colleague and I have other questions to ask that are important to our assessment of the use of this fund ...

AN HON. MEMBER: On the topic?

MR. MITCHELL: ... and we have ... "On the topic," he says.

MR. CHAIRMAN: To answer your question, hon. member, it's always within the mandate of this committee to request the return of a minister. If it's the decision of this committee to request his return, we'll do that, and within his time constraints I'm sure that he'll be prepared to comply.

MR. KLEIN: No problem.

MR. CHAIRMAN: On that note, I'll recognize the hon. Member for Ponoka-Rimbey.

MR. JONSON: I move that we adjourn until this afternoon at 2 p.m.

[The committee adjourned at 12:02 p.m.]

