



Legislative Assembly of Alberta

The 29th Legislature  
Fourth Session

Standing Committee  
on  
Resource Stewardship

Ministry of Environment and Parks  
Consideration of Main Estimates

Wednesday, April 18, 2018  
9 a.m.

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**Legislative Assembly of Alberta  
The 29th Legislature  
Fourth Session**

**Standing Committee on Resource Stewardship**

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Drysdale, Wayne, Grande Prairie-Wapiti (UCP), Deputy Chair

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Fraser, Rick, Calgary-South East (AP)  
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McPherson, Karen M., Calgary-Mackay-Nose Hill (AP)  
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Vacant

\* substitution for Jamie Kleinstauber

**Also in Attendance**

Clark, Greg, Calgary-Elbow (AP)  
Swann, Dr. David, Calgary-Mountain View (AL)  
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## **Standing Committee on Resource Stewardship**

### **Participants**

Ministry of Environment and Parks

Hon. Shannon Phillips, Minister

John Conrad, Assistant Deputy Minister, Operations

Eric Denhoff, Deputy Minister

Steve Donelon, Assistant Deputy Minister, Parks

Mike Fernandez, Assistant Deputy Minister, Policy, Legislation and Evaluation, Alberta Climate Change Office

Ronda Goulden, Assistant Deputy Minister, Policy and Planning

Robert Savage, Assistant Deputy Minister, Intergovernmental Relations, Communications and Engagement



9 a.m.

Wednesday, April 18, 2018

[Loyola in the chair]

**Ministry of Environment and Parks  
Consideration of Main Estimates**

**The Chair:** I'd like to call the meeting to order and welcome everyone. The committee has under consideration the estimates of the Ministry of Environment and Parks for the fiscal year ending March 31, 2019.

I'd ask that we go around the table and have all MLAs introduce themselves for the record. Minister, please introduce the officials that are joining you at the table when it comes your turn. I'm Rod Loyola, MLA for Edmonton-Ellerslie and the chair of this committee. We'll continue to my right.

**Mr. Drysdale:** Wayne Drysdale, MLA, Grande Prairie-Wapiti.

**Mr. Hanson:** David Hanson, MLA, Lac La Biche-St. Paul-Two Hills.

**Mr. Loewen:** Todd Loewen, MLA, Grande Prairie-Smoky.

**Mr. Clark:** Good morning. Greg Clark, MLA, Calgary-Elbow.

**Dr. Swann:** Good morning on a sunny day in Alberta. David Swann, Calgary-Mountain View.

**Ms Phillips:** Shannon Phillips, Minister of Environment and Parks. To my furthest left is Tom Davis, ADM of corporate services in Environment and Parks; to my immediate left, Ronda Goulden, ADM of policy and planning; to my right, Deputy Minister Eric Denhoff; and, to my furthest right, Sandra Locke, who is ADM of implementation and regulatory, I believe in the climate change office.

**Mr. Dang:** Thank you and welcome back, everybody. Thomas Dang, MLA for Edmonton-South West.

**Mr. Malkinson:** Brian Malkinson, MLA for Calgary-Currie.

**Mr. Rosendahl:** Good morning, everyone. Eric Rosendahl, MLA, West Yellowhead.

**Ms Kazim:** Good morning. Anam Kazim, MLA for Calgary-Glenmore.

**Ms Babcock:** Erin Babcock, Stony Plain.

**Dr. Turner:** Bob Turner, Edmonton-Whitemud.

**Mr. Nielsen:** Good morning, everyone. Chris Nielsen, MLA for Edmonton-Decore.

**The Chair:** I'd like to note the following substitution for the record: Dr. Turner for Mr. Kleinsteuber.

Please note that the microphones are operated by *Hansard* and that the committee proceedings are being live streamed on the Internet and broadcast on Alberta Assembly TV. Please set your cellphones and other devices to silent for the duration of the meeting.

A total of six hours has been scheduled for consideration of the estimates for the Ministry of Environment and Parks. For the record I would note that the Standing Committee on Resource Stewardship has already completed three hours of debate in this respect. As we enter our fourth hour of debate, I will remind everyone that the speaking rotation for these meetings is provided in Standing Order 59.01(6), and we're now at the point in the rotation where speaking

times are limited to a maximum of five minutes. Members have the option of combining their speaking time with the minister for a maximum of 10 minutes. Please remember to advise the chair at the beginning of your rotation if you wish to combine your time with the minister's time. Discussion should flow through the chair at all times, whether or not speaking time is combined.

With the concurrence of the committee I'll call a five-minute break near the midpoint of the meeting; however, the three-hour clock will continue to run. Does anyone oppose having a break? Seeing no opposition, we'll do just that.

Committee members, ministers, and other members who are not committee members may participate; however, only a committee member or an official substitute may introduce an amendment during a committee's review of the estimates.

Ministry officials may be present and at the direction of the minister may address the committee. Ministry officials seated in the gallery, if called upon, have access to a microphone in the gallery area. Ministry officials are reminded to introduce themselves prior to responding to any questions. Pages are available to deliver notes or other materials between the gallery and the table. Attendees in the gallery should not approach the table. Members' staff may be present and seated along the committee room wall. Space permitting, opposition caucus staff may sit at the table to assist their members; however, members have priority to sit at the table at all times.

If debate is exhausted prior to six hours, the ministry's estimates are deemed to have been considered for the time allotted in the schedule, and the committee will adjourn. The scheduled end time of today's meeting is 12 p.m.

Points of order will be dealt with as they arise, and the clock will continue to run.

Any written material provided in response to questions raised during the main estimates should be tabled by the minister in the Assembly for the benefit of all members.

The vote on the estimates and any amendments is deferred until consideration of all ministry estimates has concluded and will occur in Committee of Supply tomorrow, April 19, 2018.

Amendments must be in writing and approved by Parliamentary Counsel prior to the meeting at which they are to be moved. The original amendment is to be deposited with the committee clerk, and 20 copies of the amendment must be provided at the meeting for committee members and support staff.

When we adjourned on April 17, 2018, we were six minutes and 40 seconds into the exchange between Ms Kazim and the minister. I will now invite Ms Kazim or other members from the government caucus to complete the remaining time in this rotation. You have three minutes and 20 seconds. Please go ahead.

**Ms Kazim:** Thank you, Mr. Chair. Thank you very much, hon. minister, for joining us today. I was curious if there are any follow-up items that you got the information on yesterday. There were a few items that were supposed to be followed up on; to mention, about fish management or the questions related to the lakes. If you have any information on that, that would be much appreciated.

**Ms Phillips:** Absolutely. Thank you. We left off on the North Saskatchewan regional plan and public town halls, that sort of thing. The NSRP planning process did involve town halls or public forums in 21 cities, towns, and rural communities. Of course, we're out on the regional advisory committee consultation piece itself. It's happening right now. Also, there was an NSRP and Bighorn town hall at which some 200 to 300 people, approximately, attended. That was on March 22, 2018. That happened this year.

Following up on some of the questions with respect to flood mapping, there were some questions around percentages. No

percentages were used last year. Thirteen new provincial river hazard studies are currently under way on the Bow, Elbow, Highwood, Red Deer, Sheep, South Saskatchewan, North Saskatchewan, Peace, and Athabasca basins. Many of these studies are cofunded through the national disaster mitigation program. There were five studies started in '15: Bow, Bow and Elbow, Highwood, Sheep, and Peace River. One was started in 2016, the Fort McMurray river hazard study. There were five started in '17: the upper Red Deer, Red Deer-Priddis, Bow-Siksika, and Medicine Hat river hazard studies. Two studies for 2018 have just had RFPs posted, specifically for the North Saskatchewan River through the capital region and the Red Deer River through Drumheller. Those new studies will create approximately 1,280 kilometres of new flood mapping through more than 30 communities. The progress that we had at the end of last fiscal was 1,100, and this year we're adding the 180. That's how we get to 1,280.

There was additionally a question about fishing management and public hatcheries. The \$2.6 million allocated under fishing management goes to the four public facilities. There's actually \$4.17 million in capital funding as well that all goes to the public facilities. That, I think, satisfies those questions.

There were some questions about 50 centimetres in stocked ponds. There's a standard regulation applied for a quality stock trout fishery, a 50-centimetre minimum size limit at the small bag limit. The 50-centimetre size is based on feedback from anglers about their preferred size of high-quality or memorable trout. There is a high level of demand across Alberta for a diversity of fishing experiences, but only a select number of stocked trout ponds are candidates for those kinds of fisheries. They need to be able to overwinter fish, provide growing conditions to reach that 50 centimetres in four years, and have low mortality. Only about 5 per cent of Alberta's stocked trout lakes are managed as quality fisheries. The vast majority are managed with a liberal harvest objective.

**The Chair:** Thank you, Minister.

We'll now continue with members of the Official Opposition.

Mr. Loewen, you'll be going back and forth with the minister?

**Mr. Loewen:** Yes.

On line 10.4, page 131, there's nearly \$70 million allocated for other investments. Could you please break down what these other investments are?

**Ms Phillips:** That's a summary category and programs related to education and outreach for policy areas such as adaptation, industrial energy efficiency . . .

**Mr. Loewen:** Is there a breakdown of how much per . . .

**Ms Phillips:** I'm going to defer to the deputy on that. ADM Locke as well will have more detail.

**Mr. Denhoff:** Some of the components, for example, on the industrial energy efficiency program are \$46.6 million of that; then about \$9 million for community generation; \$4 million for the green loan guarantee program; then a smaller amount, about \$155,000, for the community environment action grant program; some funds for the international conference that Edmonton hosted that the government of Alberta contributed to; and about \$6 million for the PACE program, that was discussed in some detail yesterday. Hon. member, I think I might have missed a small amount there somewhere, but that would be the bulk of it.

9:10

**Mr. Loewen:** Thank you.

What are the total emission reductions that are expected from the \$68 million to be spent on these other investments?

**Mr. Denhoff:** I think we aggregate them on a larger basis than each individual line item there. The quantification difficulty is that, for example, the bulk of those funds are for industrial energy efficiency. A company will apply from the oil and gas industry, forestry, fertilizer, chemical, or one of the others, and they'll propose a project that would enable them to reduce their emissions and also their compliance costs. Until we see their specific proposals and quantify them, I couldn't give you a direct answer to each line item there.

**Mr. Loewen:** Okay. Are these funds from the carbon tax?

**Mr. Denhoff:** These are from the compliance funds. As you may know, spending is made up of two elements: one, the funds that come in from the carbon levy through the Ministry of Treasury Board and Finance and, then, funds that are paid in as compliance funds from companies. These funds, in particular, come out of compliance for industry.

**Mr. Loewen:** Okay. Thank you.

What portion of the total budget is for the carbon competitiveness incentive program?

**Ms Phillips:** Hon. member, I draw your attention to I believe it's pages 51 to 54 in the fiscal plan. There we see the carbon levy at a 2018-19 estimate of \$1.3 billion, and later on, on page 53, we see the compliance payments into the climate change emissions management fund. That's where we see, on page 54, those revenues disaggregated.

**Mr. Loewen:** Okay. The carbon competitiveness incentive program: that's income?

**Ms Phillips:** The carbon competitiveness regulation is the new regulation that governs how large final emitters are pricing their pollution to replace the previous government's specified gas emitters regulation, and those compliance payments as part of the CCIR still go into the climate change emissions management fund, as distinct from the economy-wide price, which is accounted for under the carbon levy.

**Mr. Loewen:** The carbon competitiveness incentive program is specifically what I'm referring to.

**Ms Phillips:** As part of the regulation we then made those investments. We announced them in December, some \$1.4 billion into innovation. There are a number of different tools that we're using.

**Mr. Loewen:** Is there a breakdown of how much money gets spent on the carbon competitiveness incentive program specifically? I'm only talking about that, nothing else.

**Ms Phillips:** Deputy, please.

**Mr. Denhoff:** No. The carbon competitiveness incentive regulation is revenue; it's not expenditure. In the previous administrations the government established the specified gas emitters regulation, and that charged \$15 a tonne. Saskatchewan passed, actually, similar legislation although they haven't implemented it, and Manitoba is doing a similar one. That provides the basis for providing free

allocations to companies and then pricing the remainder at the current carbon price per tonne.

The idea is that energy-intensive and trade-exposed companies are provided free allocations. If I was to average it out, most of the companies don't pay any price on about 80 per cent of their pollution, and then they pay a price, nominally, of about \$30 a tonne on the remainder. The CCIR is the regulatory mechanism that establishes those free allocations and the benchmarks for companies to pay. If you are a really, really low emitter, a brand new plant with the highest kind of technology, you probably pay nothing or might even get a credit. If you're a plant that has some work to do on your emissions profile, you would get a cost.

**Mr. Loewen:** Let me change it up here just a bit. Is there a program that the government has to help companies that are challenged because of the carbon tax?

**Mr. Denhoff:** Yes. I'm glad you asked that. We have a host of programs. First, government, the Minister of Environment and the Minister of Economic Development and Trade, announced \$1.4 billion in innovation funds, that's divided in several ways. There's a large tranche of \$440 million to be divided between the cyclic steam folks, Imperial and CNRL, and other folks in the oil sands. Then there are tens of millions of dollars for industrial energy efficiency for small and medium businesses, tens of millions of dollars for industrial energy efficiency for large final emitters. There's a loan guarantee fund to enable firms to borrow at a lower cost who might want to take advantage of a grant and then stack it with a loan guarantee in order to build a project.

**Mr. Loewen:** So what part of this program is in place to help companies that have become uncompetitive because of the carbon tax?

**Mr. Denhoff:** Well, many of them already have begun. We have a firm, for example, that has a large methane pond as a result of their food processing plant. They were putting a fair bit of methane pollution into the air. Through our agricultural and industrial energy efficiency program they've negotiated a contribution from us through these funds which will enable them to put a pond cover on their methane pond and reduce their emissions basically to zero. A second firm is putting in a major new dryer which will reduce their emissions and enables a tie-in to the municipality of Taber's water system to prevent discharges. We have firms that are putting in new HVAC systems, new boilers. There are all kinds.

**Mr. Loewen:** What do you call that program?

**Mr. Denhoff:** Well, they're a host of different programs. There's industrial energy efficiency, and then there's an agriculture industrial energy efficiency program. There's a special one for irrigation, which has been tremendously oversubscribed. Solar has been tremendously oversubscribed.

**Mr. Loewen:** Is there an overarching name for those programs?

**Mr. Denhoff:** Well, I think the \$1.4 billion, which is only one tranche of the funds, is called the innovation fund, and that covers . . .

**Mr. Loewen:** Okay. No. We already discussed that one.

**Mr. Denhoff:** Well, no. There are some parts that we didn't get to. There's \$225 million for innovation projects across sectors for research, commercialization, investment in new technology, a \$240 million total for industrial energy efficiency, \$63 million for grants

to bioenergy projects such as biodiesel and ethanol, and then, of course, we did touch on the loan guarantee program.

**Mr. Loewen:** Okay. Let's go on to key strategy 1.1, the first bullet point.

**Ms Phillips:** In the business plan, right?

**Mr. Loewen:** Yes. Key strategies.  
Okay. Are you ready?

**Ms Phillips:** Yes.

**Mr. Loewen:** Okay. What has been expended so far in the coal phase-out?

**Ms Phillips:** Well, as we announced in November 2016 . . .

**Mr. Loewen:** I just want to know in this budget, in this particular budget, how much money is expended on the coal phase-out.

**Ms Phillips:** It's in the fiscal plan.

**The Chair:** We'll now go on to the member from the Alberta Party. Mr. Clark.

**Mr. Clark:** Thank you very much, Mr. Chair. Minister, if you wouldn't mind, we'll go back and forth on this if that's all right.

**Ms Phillips:** Yeah.

**Mr. Clark:** Thank you very much. I'd like to continue talking about water, specifically page 130, line 4.3, water management. What I'm quite curious about is applications under the Water Act, processing times for applications made for development under the Water Act. Do you track the amount of time it takes to process those applications in different offices around the province?

**Ms Phillips:** You know, hon. member, I've heard a lot of feedback about Water Act approvals, and that's why we have done some reorganization within the department in order to clear up some of that backlog and rationalize a bit of that system.

I'm actually going to ask ADM John Conrad from the operations division to talk about how they've done that. They've actually taken a number of strategies to certainly meet the concerns of municipalities and others around Water Act approvals. We hear it from a number of different people.

Please.

**Mr. Clark:** Thank you.

**Mr. Conrad:** Mr. Chair, hon. member, it's a pleasure to answer your question. Water Act applications and all approval applications . . .

**The Chair:** Sorry to interrupt. Please introduce yourself.

**Mr. Conrad:** Oh. I'm sorry.

**The Chair:** No. It's okay.

9:20

**Mr. Conrad:** Forgive me. I'm John Conrad. I'm the assistant deputy minister for operations in our ministry.

Just to be brief and concise, all backlogged applications in our department: we've taken a very evidence-based, scientific approach. There are a number of deliverables over a three-year campaign plan to eradicate tactical backlog as it exists in Alberta right now but also to leverage new technologies and innovations with significant

partners like the Alberta Energy Regulator to set Alberta up for the next generation of streamlined approvals.

Specifically to timing on the Water Act, one of the deliverables of the year just completed was to catalogue how long it is taking and to baseline against, like, an 80 percentile qualification from submission to approval and to improve upon service standards, which we have now established.

**Mr. Clark:** Thank you. I would really love it if the minister could table that data. It would be really helpful.

**Mr. Conrad:** Absolutely.

**Mr. Clark:** Yeah. That would be really, really interesting to see. Is it broken down by region, by office, and what the benchmarks are? I'm quite interested in this.

**Mr. Conrad:** It's broken down by region, perhaps not by office but certainly by type of legislation for all of our approval types, all of the warts, all of the data. We suffer for legacy systems, but we are on a great trajectory. We're in the second year now of our three-year plan, and we could make that report and that data available, with pleasure.

**Mr. Clark:** That would be like Christmas for me. I love that stuff.

**Ms Phillips:** Well, that's very sad, hon. member, but moving on . . .

**Mr. Clark:** This is my kind of nerd, this kind of stuff.

But in all sincerity, I mean, I'm very pleased to hear that you're doing that. I do think it's, obviously, very important, and I will acknowledge that as government sometimes these are the types of things that, you know, like you say, warts and all, may not necessarily always tell a positive story, but if you can't measure it, you can't manage it. So I think it's very, very important that we do that.

I do want to raise a specific concern on behalf of my colleague the Member for Calgary-South East. I understand that there have been some significant challenges in completing I think it's about a 200-metre boardwalk over a wetland in the Rotary/Mattamy greenway, which is about a 140-kilometre pathway around the perimeter of Calgary. This is something, I understand, that's been going on since 2016, and they've had some real challenges. One of the kind of paradoxes of this is that because that path, that bridge or boardwalk, whatever it is, over the wetland hasn't been completed, unfortunately it means people just jump off the pathway, trample the wetland, and, kind of ironically, probably make the situation quite a bit worse. I'd just like to know if you can comment at all about the status of that particular application.

**Ms Phillips:** Absolutely, hon. member. I have heard from those constituents and from the Member for Calgary-South East himself. I believe there is an update. I don't know if the ADM has it off the top of his head, but let's see.

**Mr. Conrad:** It's a pleasure to respond to your question, hon. member. The Parks Foundation Calgary and the situation you just characterized is, yes, suboptimum. There is some to-ing and fro-ing with the energy that's gone into that, protecting the wetland and trying to optimize how the bridge and the path are going to be married up, if you will. We are meeting with the foundation. We are putting the hard facts on the table and trying to find what will be an optimized solution that's going to protect the wetlands in play but, you know, eradicate the issue that you've described of just treading through it anyway. It's a live conversation. I don't really have much more to amplify beyond what the minister has said, but

we are on it, and we are empathetic. We just have to protect the wetlands and intervene until we get to the final solutions.

**Mr. Clark:** Yeah. Okay. Thank you very much. I really appreciate that.

I'm going to move on to discussions about rehabilitation of wild animals, in particular black bears. Of course, I know that that was an issue that was very much on your ministry's radar last fall, and it continues to be something that constituents of mine and others have brought to me. I understand that some changes have been made to allow for the rehabilitation in approved facilities of black bear cubs and others. I guess I'm just curious about what the protocol is for approved facilities to apply under those changes. If you can just let me know kind of where things are with that. I understand there was an announcement not too long ago. There's a lack of clarity on exactly what that means.

**Ms Phillips:** Hon. member, I was just being briefed by the deputy in real time on this because this file is active right now, so the deputy probably has the latest information.

**Mr. Denhoff:** Yes. As the hon. member mentions, it is a very live issue and generates a fair bit of e-mail. I don't think that all of the thousand e-mails are from my 19-year-old daughter, but a good portion of them I recognize. The provinces of British Columbia, Saskatchewan, and Manitoba all allow some rehabilitation of black bear cubs younger than one year of age. It is a bit of a complex issue, and there's some debate among scientists. However, the minister in her capacity has made a decision that we will change the policy and issue protocols for the rehabilitation of black bears under a year.

We'll be sharing those protocols with the interested facilities. There are a number of groups in Alberta who expressed an interest in operating a facility, one in particular, and they do require some minimal standards: separation of the bear cubs from other animals, the ability to transport them safely, and that sort of thing. We'll be going over those draft protocols with them over the next few days and then be publicly issuing them. There will be – I think this is the best way to describe them – interim guidelines and protocols for this year because we would like these facilities to be able over time to do more outreach and more public education on how to deal with it if you spot an orphan black bear in the woods, what the proper protocols are. But they won't have those funds in the first few months to get going, so we'll support them as best we can.

**Mr. Clark:** Okay. That's very good to know.

You said: the next few days. Am I hearing days, not months, in terms of when we're going to be . . .

**Mr. Denhoff:** Days.

**Ms Phillips:** Oh, absolutely.

**Mr. Denhoff:** Yeah. Hunting season is upon us.

**Ms Phillips:** Yeah. And they're waking up now.

**Mr. Clark:** Right. They are, notwithstanding – I was hoping that in your role as the environment minister you could make the weather improve, but perhaps not.

**Ms Phillips:** The idea is that we stop changing the climate.

**Mr. Clark:** Yeah. I should stop making it so easy for you.

I would like to, then, just ask about wildlife population surveys. I'm just curious how current the data is around what our



populations are of black bears, in particular, of grizzly bears in this province. When was the last time we completed a comprehensive census or survey of black bear populations and grizzly bear populations?

**Ms Phillips:** It happens every year. Our most up-to-date numbers are that there are 40,000 black bears in Alberta. We do surveys geographically. We try to make sure that we're covering as much ground as possible for the specific numbers that are allowed in a hunt in any given wildlife management unit, which are actually quite small units, across the province.

I'm not sure if there's anything more to add from the policy and planning division and fish and wildlife.

**Ms Goulden:** I can say that there is constant monitoring of these animals. I can't answer directly whether they look at them every single year, but absolutely we have counts that are going on.

**The Chair:** Thank you very much.

We'll now move on to Dr. Swann.

**Dr. Swann:** Thank you very much. I'll go back and forth if the minister is okay with that. Thanks.

I'll just follow up on Mr. Clark's questions about the animal rehab since it sounds like you're making some changes in the policy respecting the black bears. What about the other large animals? I'm not sure why you would focus just on bears when that would be a more contentious animal than some of the other larger animals such as mule deer, moose calves, pronghorns, and foxes. Are you thinking of shifting your focus on those as well?

**Ms Phillips:** In terms of wildlife rehabilitation?

**Dr. Swann:** Yeah.

**Ms Phillips:** The ask for a black bear rehabilitation protocol came after the four – I believe it was four cubs or three – cubs were found in a washroom in Banff national park. There was a tremendous amount of public engagement on the file at that point, and it was pointed out that other jurisdictions do have that kind of wildlife rehabilitation protocol in place. You know, it was important to us to respond to community concern.

Around wildlife rehabilitation more broadly, we have to make sure that we're being science based and that we are also focusing our resources. I'm not sure if there's any more to add. I would also look at an interjurisdictional comparison in deciding whether we were going to expand those protocols. If other jurisdictions are doing it and if there's interest from actual delivery agents, then we may consider it, but it's not something that is undertaken by government. We do the protocols, the rules, and then people out there, nonprofits of various kinds, actually do the delivery.

9:30

**Dr. Swann:** So there's really no cost involved for you. It's just a question of following the evidence. If you're permitting something like a bear, I don't understand why there would be any barrier to increasing the species like these folks have been doing in the past and could continue.

**Ms Phillips:** Yeah. I mean, I think that if there was a desire for more provincial protocols, then we would respond to that.

**Dr. Swann:** Rather than initiate it on the basis of evidence when the obvious demand is there?

**Ms Phillips:** I guess there's a question of priorities, too. You know, if there's an appetite among nonprofits to deliver those services, then I would be happy to receive that information from them.

**Dr. Swann:** Okay. Well, I'm surprised, because I tabled 17,000 names in the House that were respecting bears particularly just because of that incident. But the issue goes far beyond bears. For decades these folks have been rehabilitating other animals, always having to apply for a special permit. I don't know why you wouldn't just short-circuit all that and move more quickly to the other areas.

**Ms Phillips:** Well, for each protocol, you know, it does take a certain amount of resources to make sure that those monitoring and safety protocols that we've got are in place and that other factors are also being managed. It's not a zero-cost undertaking, for sure.

**Dr. Swann:** Okay. To summarize, you're waiting for more lobbying from citizens on these different species?

**Ms Phillips:** I mean, I think there's some science there as well that would probably have to be undertaken in terms of the relative merits of each species, especially when they are in abundance.

**Dr. Swann:** Okay. Jumping to CWD, you've indicated in your budget numbers that \$6 million is committed to chronic wasting disease management. As I've raised on a number of occasions, I guess the crossover to other ministries is there and concerns about collaborative planning with other provinces, including Saskatchewan, a federal responsibility here as well. The Canadian Food Inspection Agency has pulled back and called for only voluntary testing now. It's admitted that its protocols are not very effective, so they're just pulling back to the minimum kind of investment.

I'm hoping that Alberta might take the lead on pulling together a national consensus on control of CWD before we lose growing numbers in the wild, contaminate more of our land with the prions, which are passed through urine, feces, saliva, and other forms, and establish a stronger, I guess, control program before it affects our agriculture markets. Indeed, there's even been speculation from a prion scientist that it's only a question of time before it potentially goes into humans. We know that a number of people, in the thousands, eat infected deer and elk because they don't test it. They're supposed to test it, but they don't. So it's a much bigger issue, I think, than many seem to make it. Admittedly, Alberta has few on farms that are infected. Would you consider pulling together a joint planning and consensus conference on a more robust approach to wasting disease and its control?

**Ms Phillips:** Certainly, the question of the overall challenges presented by wildlife disease have been raised at the federal-provincial-territorial level. We received a presentation – I believe it was in the middle of last year – at an FPT that we held. I think it was in May or June. Certainly, it is a matter that is taken up by the question of adaptation to climate change as well because we know that wildlife disease is more prevalent. Just like with invasive species, the challenges are amplified by climate change.

So I think that what we could do is undertake to discuss the matter in an upcoming FPT because there is room here for co-operation between provinces. It might even be a conversation that we are actually able to have with the government of British Columbia. I'm always looking for those opportunities.

**Dr. Swann:** Saskatchewan would be even more important.

**Ms Phillips:** Well, you know, we're talking these days. I know that Saskatchewan has similar challenges and similar wildlife populations that are affected by this. We do have mandatory and voluntary testing for CWD in Alberta, so depending on where the hunting has occurred, there are places where submitting the head for testing is actually mandatory. There were 4,944 heads that were suitable for testing last year – I believe this is last year's data – and CWD was detected in 1.5 per cent of 1,400 white-tailed deer, .2 per cent of 431 elk, primarily from CFB Suffield, zero of 176 moose, and 5.4 per cent of 2,833 mule deer.

**Dr. Swann:** That last one was 5.4 per cent?

**Ms Phillips:** Yes, of 2,833 mule deer. The gender breakdown is 8.1 per cent of the 1,473 male mule deer where CWD was detected and 2.6 per cent of 1,349 female mule deer and then smaller percentages in the white-tailed populations.

**Dr. Swann:** Okay. It's only going to get worse. We're not getting ahead of it, and Saskatchewan has the worst record in terms of monitoring as 75 per cent of their farms are endemic with the disease.

**Ms Phillips:** I just want to correct the record. This is '15-16 data, as I understand it, and we have CWD detected in six WMUs, the wildlife management units, but it varies, depending on the species, in terms of its rate.

**Dr. Swann:** Yeah. Thank you.

With respect to land-use framework implementation, I have yet to see a report called a cumulative impact assessment. Is that because you don't actually have the capacity to do them or because they're just not necessarily made public?

**Ms Phillips:** Cumulative effects management is usually taken up . . .

**The Chair:** Thank you, Minister.

We'll now move on to the private members of the government caucus.

**Ms Kazim:** Thank you, Mr. Chair. I would like to ask about flood mitigation projects in Calgary.

**The Chair:** Ms Kazim, just to be clear, you'll be going back and forth with the minister?

**Ms Kazim:** Yes, and I will be sharing my time with my colleagues.

**The Chair:** Sure. Excellent.

**Ms Kazim:** I would like to ask about flood mitigation projects in Calgary and what the state of these projects is.

**Ms Phillips:** Thank you, hon. member. We've been investing a lot in flood mitigation around the province and in particular in Calgary. We made a commitment to \$150 million in Alberta community resilience program funding for Calgary. So far there has been \$54 million of that allocated. Many of these are in the Bow River basin. They are things such as the 9th Avenue bridge in Inglewood, for example. The downtown flood barrier was a \$4 million investment. The Glenmore dam infrastructure improvement program – that's a water/waste-water improvement – is \$7.6 million, and that's in the Elbow River subbasin.

9:40

We've got a Heritage Drive permanent flood barrier, at \$3.9 million. The Centre Street Bridge lower deck flood barrier improvement is something that many people know when you visit

downtown Calgary. Certainly, the Centre Street Bridge has seen high water levels in the past. That's \$1.5 million. The Sunnyside pump station in the Member for Calgary-Mountain View's area is a stormwater management project, at \$3.4 million. There's the west Eau Claire flood barrier, at \$2.1 million. That's in preconstruction. Of course, the city has begun a number of things in and around the west Eau Claire area. You can just see it when you walk down Memorial. There's also the second Sunnyside pump station, a \$6.4 million investment in the stormwater management system there.

Then there are a number of other erosion control, bank stabilization investments – and those are some \$52 million as well – across the city, obviously, in the Elbow subbasin. For example, some of the completed projects are in Inglewood below Cushing Bridge. There's Parkdale and Westmount, that are finished. That was a smaller piece, at \$983,000. Deane House got 50 metres of bank protection, which is great. That's obviously been an issue down in that area. There's a pathway at Calf Robe Bridge, for example, and some of the investments upstream of Lafarge, ensuring that their operations are kept safe. That's \$1.3 million. Then there's some work upstream of Glenmore Trail, hon. member, that you might be interested in, at \$1.1 million. Many people have seen the various investments in the zoo, and some of those were through these programs as well. There's a zoo erosion protection piece and some other berms and investments there.

Finally, the watershed resiliency program. You know, Mayor Nenshi talks about brute-force mitigation and then just moving the water or letting the landscape hold the water. WRRP, the watershed resiliency and restoration program, is in the latter category. For example, the Bow River Basin Council, who are great community advocates, are in active construction of a \$74,000 project at Jumpingpound Creek. There are a number of riparian health restoration projects going on within the city of Calgary. The Friends of Fish Creek – of course, we have a provincial park in the middle of Calgary – are also doing some riparian restoration, which is great.

We also partner with land trusts and rural municipalities on some of these WRRP programs. For example, the Western Sky Land Trust are very, very active, and they've got a couple of stewardship, education, and conservation initiatives happening through WRRP. There's also – I love these folks – the Alberta low-impact development partnership, which is using rainwater capture and reuse. That's an active construction project as well.

There's some really exciting stuff that's being led by communities through WRRP. It's always great to see those partnerships and people's enthusiasm for solving water-related problems and understanding that we have to undertake these activities and that we have to do them together as private landowners, municipalities, civil society, watershed councils, and government.

**Ms Kazim:** Right. These projects sound great, and thank you so much for taking that initiative. I myself was affected by the floods in 2013, so I know what it was like. I'm really happy to hear about the initiatives that are being taken.

Now I would like to hand over my time to my fellow Member for West Yellowhead.

**Mr. Rosendahl:** Thank you. I'm going to switch over to the climate change initiatives. Municipalities have been taking a larger role in addressing climate change, and I've certainly seen an increased demand for programs and initiatives to support green projects like the geothermal in Hinton or the Turning Point Generation water over land issue in Hinton. These are at the municipal level, and you recently announced \$54 million for the Municipal Climate Change Action Centre. Can you tell me where this is in the budget, and can you indicate what projects that will fund?

**Ms Phillips:** That \$54 million came out of the 2017-18 budget allocations, as I understand it, correct? Yeah. What we did with those: \$16.5 million of the \$54 million will go to renewable energy and community generation. That's to support projects that municipalities have a lot of enthusiasm for, which is investing in their own community-scale projects, and achieving, hopefully, once we have a number of the pieces in place, a longer term revenue stream that is using the carbon levy in order to provide municipalities with those opportunities and those long-term arrangements. Of course, the carbon levy is something where if we don't have a system here in Alberta, then one will be imposed on us, so we want to make sure that what we've got in place benefits our communities.

There's community infrastructure greening. There's \$175 million to help communities reduce GHGs and create jobs by retrofitting existing buildings. These are our rinks, our larger arenas, our curling rinks, our swimming pools, those kinds of community-level infrastructure. We know that when folks do something even as simple as retrofitting their lighting, they are saving tens of thousands of dollars a year.

I toured Vivo recently in northeast Calgary, and they articulated to me significant savings just from changing their lighting system, and now they're looking at doing more. It's not even that old of a facility, but it's amazing how even those small changes can mean that they can redirect those funds into other initiatives. They serve a lot of new Canadians at Vivo and have a number of child care programs and other things on the go. You know, I think it's great that they are being able to redirect those funds into serving their community.

We've got \$5 million in that overall allocation for municipal fleet greening. In some cases some municipalities have an appetite to begin planning using EV buses. Certainly, Edmonton has articulated this desire, as has Lethbridge. There's a bit of planning that needs to go into that. Certainly, the technology is there; there's no question. But buses are not the only part of a fleet in a municipality. Large and small municipalities have vehicles that they use for different purposes, whether it's garbage trucks or regulatory vehicles, bylaw officers, what have you. The idea there is that we assist municipalities with programs if they want to undertake some of those pilot projects, either straight EV technology or EV hybrid. There are a number of different options there.

**The Chair:** Thank you, Minister.

We'll go back now to the Official Opposition. Mr. Drysdale, please go ahead.

**Mr. Drysdale:** Thank you, Mr. Chair. I'll go back and forth with the minister if that's fine.

Thank you, Minister, for being here and to your staff. I know you have lots of capable people there behind you. I just want to ask you first about a project. We've talked about it before. It's the industrial park land south of Grande Prairie. I know you were supportive, and there was lots of work going on with your department. There's the tri-municipal one and also the site development. I was really disappointed to hear last week that they rejected the site development, turned it down. I thought it was, you know, moving along pretty well. They've been working on it for over two years. The previous deputy was supportive and also the Energy minister. I think there was a great opportunity for some economic development and diversity there. Over \$10 billion was chased away, so I'm just having trouble understanding why the department is not supporting something like that.

9:50

**Ms Phillips:** Thank you, hon. member. The member is quite right that diversification and value-added are very important to this

government. Having said that, I don't want to compromise the regulatory process in any way by fettering those decisions because they could be appealed to the Environmental Appeals Board or subjected to a judicial review as well.

What I'm going to do is defer that question to the deputy, and ADM Conrad will come to the mic to provide further detail.

**Mr. Denhoff:** Thanks very much, hon. member. I think everybody thinks the idea is an exciting one, and nobody is conceptually opposed to it. The constraints, as I understand them – and keep in mind that I've been here two weeks, so I still have more digging to do – are that when you apply for a disposition, as the company did, you have to apply for that disposition for a specific purpose: you know, I'm going to build a pulp mill, or I'm going to put in a mine, or I'm going to build an industrial building. My understanding is that the purpose for the application at various times changed and also that, at the end of the day, it wasn't for a specific project. At the same time, there is a firm, a very large firm, that has in mind a proposal for that or a similar site for a specific project.

I'd suggested that if this is painful because the folks have invested a lot of work and time and we want to get that industrial park going, why don't we just sell it to either the municipality or a consortium of folks? You know, the bureaucracy has a problem for every solution, as you know. I got back a long, two-and-a-half-page memo explaining that it would take two years to sell the property to folks. So that didn't seem a rational solution.

I'd like John to go into just a little more of the detail about what we did try to do and why it got stuck. Certainly, if there is a way for us to still accomplish it, we're keen to do so. We think the overall idea of the industrial park, obviously, has terrific merit. There's no doubt about that. It's finding a way to do it within the act, as I understand it.

John.

**Mr. Conrad:** Thank you, Deputy. Mr. Chair, hon. member, it's a pleasure to address the question. Let me start by saying that it is not over. First of all, the proponent that you're referring to does hold a large swath of public land under disposition. We're working with them on that. They want to adjust their lease length, and we're very alive and agile to that.

The six specific applications you're referring to: we extended our process on one occasion formally, and then informally we worked with them well into April, so almost a 15- or 16-month process that is normally a year. I don't want to sound like a whiner. We sat down with the proponents. I sat down with them personally with my decision-makers. We talked about some of the challenges and the specificity that they would need on these applications in order to conduct appropriate consultation with our First Nations and for us to make the merit-based decisions we need about the environment. I want to emphasize again – and I'll be concise so that I don't chew up your time – that it is definitely not over. We have made a couple of proposals to them that might fit their business model, but we can't approve a generality.

There are other interests, as the deputy has mentioned, that are in play. We're also finding a lot of energy being poured into the tri-municipal industrial park and working with the communities. We agree, from our land-use planning perspective and working with local authorities, that it's a terrific swath of land for an industrial park. The proponent that you're referring to: I check in on them. They know I'm open for a specific application any day. We decided that we had to take that decision. The applications were in such a muddled state that to try and repair them would have cost them more time.

I think that's probably enough on applications pursuant to more questions, sir.

**Mr. Drysdale:** Yeah. I think there's a misunderstanding here. I mean, this proponent spent over two years, maybe close to three years trying to get it. That's exactly why they're doing it, because if a business comes along to build there, they're not going to wait three years to get the land secured. Just like our Kinder Morgan pipeline, a company can only put so much time and money investing into something and not have it go forward. The whole idea of this industrial park land is that we know that all the development there will be industrial development. So whether it's a gas plant, a methanol plant, or whatever, you know, it should still fit into the industrial category. When a specific proponent buys a chunk of land and is going to start their methanol plant, then they can do a development permit and give you all the specifics.

The guys that are trying to get this land tied up so that if somebody comes along, they've got a place to build: they don't have the specifics, because until you have the land, you can't bring in a component. It's a chicken-and-egg thing, and we're never going to get any development there. I know this particular company has been three years and have spent a lot of time and money, and they're just going to say: forget it. I know that in the last few years we've turned away \$10 billion worth of investment there. There was a company that wanted to build a methanol plant there last winter. No land to build it on. If they see that it's going to take two or three years to secure the land, they're going somewhere else.

It's just frustrating for me, and I just want the department to know and on the record that we need to do something. If the bureaucrats' and the department's hands are tied because it doesn't fit in the proper box, I know the minister and the cabinet can make ministerial orders to offset that. I've been there and done that before. You know, to have this thing tied up for three years because it doesn't check the right box is kind of crazy when we're chasing billions of dollars' worth of investment. But I'll get off my rant.

**Mr. Denhoff:** No, hon. member, it's not a rant. I mean, I was a developer, which I'm not sure, actually, the minister knew, in a previous life, so I understand exactly. The problem we run into is that what a developer wants to do is assemble and then put projects into it. The way the act is written, you have to have something specific to consult on for the disposition. So if I say, "I'm going to build a condo development there, and here's my application" and then the First Nation says, "Oh, okay; it's a condo development here; it's going to be four floors; I know what the impacts are," the environmental people and the fish and bugs and bunny people can all go out and do their studies. When I just say that I'm going to have an industrial park and I'll tell you later what kind of projects are on there, nobody can do the consultation because they're not consulting on anything except this broad idea of an industrial park. I agree with you wholeheartedly. There should be another mechanism in this particular case, and that's what we're exploring, whether a ministerial order could resolve this issue.

The other problem we have is one of competitiveness. Firms say: "I would like to put a proposal for development on that site, but I'm being told I can't. I have to go through another firm to do it, who currently holds the disposition." Then they get into a bit of commercial jockeying. It is quite complicated. I think the ministerial order may ultimately be the solution, but we have to have some legal advice as to exactly how we would do that. We all share, simply, that this is a great piece of land, should be developed, and there are projects that should be able to go in there.

**Mr. Drysdale:** Okay. I'll let it go, but I know that the department is stopping it from happening. I'll just move on quickly. I don't have much time.

I thought it was interesting the other night when I was listening to Infrastructure estimates. I have a little experience there. The minister was asked about Swan Hills, and she said to ask Environment and Parks about it, that it wasn't Infrastructure. I know that's a \$30 million loss that taxpayers have to cover every year. When I was there, we put out an RFP to have a private company take over so that it wouldn't cost us \$30 million. Anyway, the minister referred us to ask the question in Environment and Parks, so that's what I'm doing.

**Ms Phillips:** I'm going to defer to ADM Goulden on this. I think there's some latest information.

**Ms Goulden:** The total cost of the Swan Hills facility is not governed by Alberta Environment and Parks. However, we do have a contract with Suez for waste management and exporting waste to Swan Hills.

**The Chair:** Thank you very much.

We'll now move on to Mr. Clark.

**Mr. Clark:** Thank you, Mr. Chair. The minister and I will go back and forth again.

Starting on page 70 of the business plan, performance indicator 1(d) indicates municipal solid waste to landfills of, it looks like, 565 kilograms per capita. I was talking with the Recycling Council of Alberta. They sent me some data. Their data show that Alberta disposes of towards a thousand kilograms per capita per year, which is, obviously, substantially different from the data reported in your business plan. Can you just explain the discrepancy between their numbers and yours?

**Ms Phillips:** I would have to take that under advisement to have a look at what their methodologies are. Ours, I think, are sort of reported from municipal and private landfills. As well, on the per capita, it's StatsCan data. So I'm not sure if there's daylight between which census or those kinds of things as well.

10:00

**Mr. Clark:** Okay. What they did show, which I guess I'll ask to see if you believe it's, in fact, the case, is that Alberta disposes of more than, by the looks of it, any other province that we have data for. Is that your understanding . . .

**Ms Phillips:** Yes, it is.

**Mr. Clark:** . . . that our numbers are higher than the other provinces' and that we divert not less than any other province but certainly substantially less than, say, our neighbours in British Columbia?

**Ms Phillips:** That is also my understanding. We have some work to do around waste diversion and recycling. As I indicated to the Member for Calgary-Mountain View yesterday, we have something of a path forward in order to do that.

**Mr. Clark:** Okay. All right. One of those potential paths forward is extended producer responsibility. My understanding of that is one of those almost too good to be true kinds of concepts, where it shifts the responsibility from taxpayers and municipalities in particular to the producers of those products, and they have extended responsibility. I understand that that is something that has taken hold in B.C. in particular and, I believe, in Ontario as well or perhaps even other parts of the country. I also understand that there's a Canadian Council of Ministers of the Environment Canada-wide action plan for extended producer responsibility. That is perhaps not something that we in Alberta have decided to adhere

to. Can you just speak to where we are with extended producer responsibility? Is that something that's on your radar?

**Ms Phillips:** It's certainly on our radar, hon. member. At one point, probably in the '90s, Alberta led on recycling and then promptly stopped doing that thing, so we do have some work to do. There's no question. There are various EPR models in place, a couple of them in particular across the country. B.C. is the furthest ahead with this and have had to make some changes to their systems over time to move the costs from the municipalities, as the member points out.

This is something that the CCME has discussed. It was my first CCME meeting, in June 2015, when we discussed it, and I believe that it is coming back onto the agenda for the next CCME. We are currently consulting around an EPR model for ag plastics and having those conversations with municipalities and agricultural producers and others. Those conversations are active right now. Certainly, we're beginning to hear more and more from municipalities around at least enabling an EPR model in the regulation. Then we would have to do, I think, some considerably more consultation and public policy work in order to make that real.

Currently we have a little bit of a different system where our regulated materials are governed around a delegated administrative organization, the Recycling Council of Alberta, and the setting of fees and so on. There have been questions around that, so we have committed to making some changes around the existing fees and how those fees are set for used oil management, paint, tires. However, we have a proliferation of e-waste out there that municipalities assure me they are having trouble keeping up with and other materials, commercial and industrial and so on, that certainly Alberta can do better on. That's where I think we can have some further conversations around application of EPR throughout the economy.

**Mr. Clark:** Of course, that would potentially – as we talk about electronics recycling, that actually is a nice segue into my next question, because it is somewhat limited now, I understand, to TVs, computers, printers, copiers, scanners, and whatever fax machines may be left out there, but small appliances, power tools, audiovisual equipment are a real challenge. Do we have an active plan to roll that in and include that in electronics recycling?

**Ms Phillips:** Well, that is exactly one of the things that we have to have a few more conversations around with the delegated authority and with the municipalities on what the right model is. There is no question, though, that we have lots of smaller household appliances now and lots of smaller electronics than we ever used to have – tablets, all these sorts of things – that municipalities rightly point out are increasing their costs to deal with.

**Mr. Clark:** Okay. I guess this gives me the chance to just talk about the amalgamation of the Used Oil Management Association with Alberta Recycling. I understand they wrote to the Premier and copied you at the beginning of this year. They aren't too happy with that amalgamation. They feel like there are potentially some negative unintended consequences, and they feel like they were not very well consulted through the process. Have you spoken with them about their concerns on the amalgamation of those two bodies?

**Ms Phillips:** I certainly heard those concerns, but, you know, the fact of the matter is that we were elected with a mandate to review agencies, boards, and commissions and realize efficiencies where possible, and this was one of those places. I would suggest that one of the larger issues facing used oil management and the Recycling Management Authority is the setting of fees and their ability to deal with some of the financial constraints of fees that haven't changed

in many, many years, so those are the issues that we are going to address.

But, you know, when you are talking about recyclable materials and ensuring that they are appropriately taken off the landscape, it was a little bit confusing to me as to why we would need two delegated authorities to do that when both concern themselves with recycling of materials.

**Mr. Clark:** You know, from an admin cost perspective, I understand the AUOMA was able to share its administrative costs with B.C., which now perhaps isn't the case. What I'm hearing is that perhaps in an effort to find some of those administrative efficiencies, there's perhaps putting together two organizations that on the surface may appear like they belong together, but on an operational level, at least from the RCA's, the Recycling Council of Alberta's, perspective, they don't feel like that does in fact achieve that desired outcome. Is there a risk here that we're putting things together that may not actually end up – you talked about setting fees. It doesn't seem to me that that necessarily is something that those two bodies have to be together to achieve. I'm just sort of curious, based on this feedback that I've received from the recycling council that they're not feeling like they're going to achieve what you're suggesting they will.

**Ms Phillips:** I think that we wanted to streamline the number of agencies, boards, and commissions out there. There's no need, when folks are undertaking similar activities, to have two different governing bodies to do so. I think that at any time you can realize those efficiencies, then you need to take a hard look at that. As for some of these other operational details, our department is working through those with the two DAOs, the Recycling Management Authority and the Used Oil Management Association.

We believe that, overall, Alberta's approach to recycling does need to change, and having more organizations out there as delegated authorities rather than fewer doesn't really accomplish that goal. You know, we'll work through some of these issues with them as they arise, but we made a commitment to Albertans that we were going to minimize the number of appointments and other just layers of administration out there. We've made good on that commitment, and I won't apologize for it.

**The Chair:** Thank you, Minister.

We'll now move on to Dr. Swann.

**Dr. Swann:** Thanks very much. Just a follow-up on that last question in relation to the recycling. There are plastics recyclers in Alberta. They say that now that China has closed the door, they're hoping to do much more activity in manufacturing plastics and alternatives in consumer goods that could be lasting and could really do good. The problem is that there is no purity in our system. Is that a municipal decision, or is that something that we need to establish provincially, that we get cleaner streams of plastic so they're not having to hire people to sort them. They are contaminated, and that means that we throw out the large majority of plastics now. We landfill the majority of plastics.

**Ms Phillips:** Yes. The municipal recovery facilities, MRFs, are within the municipal jurisdiction, and they are investments that they make in terms of how they do their sorting and so on.

I don't know if there's anything more to add. Deputy?

10:10

**Ms. Goulden:** Yes. I can just add a little bit on that, which is to say that as we continue to do the work regarding EPR, extended

producer responsibility, what you're talking about is really a design issue, the design of the recycling program and how separation occurs to achieve purity. There are a number of different ways that we're looking at to enable a system where that could occur. Much of it would still happen at the municipal level. The province looks at how to create the enabling rules to allow that to happen.

**Dr. Swann:** Okay. How long is that going to take?

**Ms Phillips:** I think we've committed to doing a lot of that work over 2018.

**Dr. Swann:** Thank you.

I understand from a colleague formerly in the oil industry that he's doing some creative work around solar recovery in inactive oil and gas operations and sites. We have the land there. We have a plant or an operation site that's not producing oil necessarily, or it's very small amounts. Solar recovery adds two things. It generates electricity, and it reduces the cost of recovering some of the conventional oil. Can you tell me if you are investing in that, and if so, where? What is the future there for a potential win-win around solar energy and improving our conventional oil recovery?

**Ms Phillips:** You know, I, too, have heard of and been approached by many of these companies, and they have been very enthusiastic. However, it's not the job and it ought not be the job of the province to choose particular technologies. That's why there are either competitive processes or other processes in place through either the industrial efficiency programs, Emissions Reduction Alberta and their competitive processes, or various other programs through the innovation fund whereby those decisions are made there. If they are economic and if they have an ability to be rapidly commercialized, deployed, and so on, then, absolutely, they will find a home in one of those, either the innovation framework or through the various programs designed to push along deployable technology.

**Dr. Swann:** With respect to the reclamation of some of these sites I was told by someone who formerly worked with the Energy Resources Conservation Board that, notwithstanding the Redwater decision, our current legislation allows Alberta environment to go after officers and members of the board of a company to get expenses for reclamation and that in only one or two cases in our history has Alberta environment done that. Can you speak to that issue of failing to employ our current ability as government to go after company officers and boards?

**Ms Phillips:** I'm going to defer to ADM Goulden on this.

**Ms Goulden:** There are questions about all of those abilities: what the extent of those are, how they would be used, and what the long-term impacts of that are on the system. It's one of those things where, if you were able to do that, if it was proved that you could do that, the unintended consequences in the system also have to be addressed. What do you do? Do you actually scare everybody off from becoming involved at all? Right now we need people invested and still in the game in order to deal with the liability issues that we have, and there are some concrete steps that have been taken by the Energy Regulator and by the Department of Energy to deal with some of those issues so that we can keep the system moving and address the problems that are there.

**Dr. Swann:** Okay. Can you talk about progress or lack thereof in terms of ensuring the liability of the company and that polluters pay? That is a growing concern, especially in the oil sands.

**Ms Phillips:** Sure. We have, obviously, the orphan well program through the Department of Energy, but ADM Goulden can talk a little bit about the liability pieces that Environment and Parks are responsible for.

**Ms Goulden:** Right. With regard to wells there is actually a system in place to ensure that we have liability management. The industry is equally as interested in that as government, right? The industry wants to be responsible and make sure that those are taken care of.

Was your question specifically with regard to wells?

**Dr. Swann:** And also the tailings ponds: I mean, a \$21 billion liability there, and it's not clear how we're going to resolve that.

**Ms Phillips:** I'll take that. On the tailings management framework, we are now receiving the plans from the companies and evaluating those plans as to the reclamation plans going forward. That's the new directive I asked for, and we are in the middle of that process, I believe it's fair to say.

**Dr. Swann:** What would be a timeline that you'd expect to see some resolution?

**Ms Phillips:** Well, it's an ongoing conversation. For example, I believe it was Suncor that submitted a plan. Environment and Parks and I believe it was the regulator, actually, came back and said: you know, we need more information on this aspect and this aspect. Are there specific timelines that the regulator is dealing with? It's a question for the regulator at this point.

**Ms Goulden:** It is a question for the regulator.

**Dr. Swann:** Okay. Thank you.

I would like to echo something that's been raised before, and that is that our licensing and park fees are much lower than other provinces', especially B.C., and I would encourage you to look at those. I'm aware that your department needs more resources, and I don't think you're getting the resources that you need. I think that one of the ways that Albertans, many Albertans at least, are prepared to do that is to increase the fees on various licensing and park activities. Just a suggestion. I think that many people realize that we are underfunding environment and that we value the environment and that we are much less than other provinces in terms of some of our fees.

An odd one: a constituent who does surfing on the Kananaskis River, runs a surfing club on the Kananaskis River, has been trying for two years to get your attention and hasn't received any response to his concerns. Has anyone got anything to say to the director of the surfing association and their use of the Kananaskis River at various times?

**Ms Phillips:** Yes, I think Assistant Deputy Minister Donelon has. I've heard from these folks as well a couple of times.

Steve, if you wouldn't mind providing some update on this. There are various paddling groups and so on who are invested in the Kan. Would you mind?

**Mr. Donelon:** Yeah. Thanks for that question. I'm surprised that you've heard from them that they've had trouble working with us or getting some involvement from us. I know that over the past number of years we've worked closely with the Alberta River Surfing Association on the development of a couple of specific features on the Kananaskis River. We continue to work with them, keeping in mind that there are a whole variety of stakeholders involved on the Kananaskis River and that there are issues around safety, issues around design features. Then there are environmental features with

regard to what we can actually develop in the waterway, the Kananaskis River. There are a number of factors that we're taking into account when we work with them. But we've had ongoing conversations with the association over a number of years looking at how we can provide that opportunity for them.

**Dr. Swann:** So you have responded to them in the last two years?

**Mr. Donelon:** I believe so. I know that we've had, like I say, ongoing conversations. I myself have been party to several of those meetings over the past number of years. We could probably provide, you know, some background with regard to what those conversations have been.

**Dr. Swann:** Thank you.

You were commenting earlier, Minister, on cumulative impacts . . .

**The Chair:** Thank you, Dr. Swann.

We'll move on to the private members of the government caucus.

**Mr. Rosendahl:** Thank you, Mr. Chair. We would like to share our time equally with the minister if that's okay.

**The Chair:** Please go ahead.

**Mr. Rosendahl:** I'd like to continue on with the area with regard to the municipalities' role in addressing climate change. Minister, can you indicate what kind of funding had been provided to municipalities for these types of initiatives, that you mentioned the last time I had asked some questions in the past?

**Ms Phillips:** Yeah. I got cut off at the end there. The new funding also includes – and I think I alluded to this yesterday – the renewable energy for schools. There's an extra \$15 million there for existing school facilities, and we're working, between the municipal climate action centre and the boards – AUMA and school boards already co-operate on a number of different initiatives. That solar program will move through the MCCAC, the Municipal Climate Change Action Centre, as well.

**10:20**

The March announcement that Minister Anderson made builds on our existing suite of programs. We've got the existing municipal solar program, that was launched in March 2016: 48 projects completed or under way in 25 municipalities, and 30 of the 48 have been completed, so there are 48 completed or under way.

There's the nonprofit energy efficiency transition program. We launched that in January 2017; 143 projects have been completed or are under way across 139 NPOs, nonprofits. There are more expressions of interest happening there, and we are accepting those.

There's a program that we launched in November 2015 called TAME, which is the taking action to manage energy program; 45 projects have been completed across 25 municipalities. That program is now fully subscribed and is going to be rolled into other initiatives like the \$54 million that we announced in March.

Then there's another one, called TAME express, which is quick implementation of just high-efficiency lighting retrofits, lighting and lighting controls. We launched that in March 2017; 56 projects completed or under way across 29 municipalities.

Then there's the climate resilience program. That's between the MCCAC and the All One Sky Foundation, and that provides support and resources to help municipalities plan for climate adaptation in their decision-making processes, whether it's capital or operating. Thirteen municipalities having done up climate resilience action plans through that program so far.

**Mr. Rosendahl:** Okay. Well, thank you, Minister, for that.

I'll carry on in light of that answer. Can you compare, then, the funding amounts to municipalities to the Municipal Climate Change Action Centre's, between this government and the previous administration? Could you do that?

**Ms Phillips:** Sure. I just want to add another piece that has happened in the last year. Since the TAME program was fully subscribed, what happened is that – and this is happening now that Energy Efficiency Alberta is up and running – they deliver many of the programs. The business, nonprofit, and institutional program, through EEA, funded 71 municipal projects after those other program funds became fully subscribed.

The municipal climate action centre dates from 2009, in and around the time the specified gas emitters regulation, the Conservative carbon tax, was put in place. The investment from the government of Alberta, the previous government, was \$4 million from 2009 to 2014. In 2015, '16, '17, and '18 we've seen \$64 million invested, even predating the economy-wide price on pollution.

**Mr. Rosendahl:** Okay. Well, thank you.

I will now turn the next questions over to the Member for Calgary-Glenmore.

**Ms Kazim:** Thank you.

**The Chair:** Go ahead, Ms Kazim.

**Ms Kazim:** Thank you, Mr. Chair. I would like to begin by asking about: where can I find a cost estimate for the risk of not addressing climate change in terms of both natural disasters and the effects of a changing climate on agriculture, industry, forestry, and jobs?

**Ms Phillips:** You know, the previous White House did a social cost of carbon calculation, that many climate economists look towards. There are a number of third parties that calculate social costs of carbon, and that takes into account the impact of extreme weather events, investment, and industry competitiveness, and those are modelled on economic growth forecasts. If you multiply the amount of emissions avoided by the social cost of carbon, you end up, in Alberta, with a figure of \$29 billion. Those are sort of maybe a bit more theoretical.

But there are more concrete examples. For example, I just read last week in *Canadian Underwriter* magazine, that well-known socialist propaganda arm, that the insurance industry has a number of concerns about the impact of climate change here in Alberta and our ability to withstand more frequent and severe weather events, because we know that Canada's most costly natural disasters in the last decade or so have occurred here.

Whether it's hailstorms in downtown Calgary, whether it's, of course, the catastrophic flooding in 2013, we know very few things about the future with respect to how the climate is changing. But what we do know is that weather events are becoming more frequent and severe, and certainly the insurance industry has been one of the biggest advocates of action on climate change because they have modelled climate risk, just as many large firms now model both the cost of carbon and cost of climate risk in their future scenarios. You know, what that signals for us is that the cost of doing nothing is very, very high.

**Ms Kazim:** All right. Thank you very much.

Now I'd like to hand it over to the Member for Calgary-Currie.

**The Chair:** Please go ahead, Mr. Malkinson.

**Mr. Malkinson:** Thank you very much, Mr. Chair. I know that there are many businesses that, you know, are excited about reducing their emissions and finding new ways to drive innovation. I mean, this is a province that has historically been very entrepreneurial about having new and exciting advancements in industrial processes. I'm wondering: as a result of sort of harnessing that knowledge, what's the total budget for Emissions Reduction Alberta, and how does this funding support industry competitiveness and innovation?

**Ms Phillips:** Emissions Reduction Alberta came about – their previous name was the Climate Change and Emissions Management Corporation, and we simply renamed them to focus the name of it and have an acronym that people can say.

**Mr. Malkinson:** That's what's good in government.

**Ms Phillips:** Yeah.

ERA is funded by the previous government's approach to pricing pollution, and we continued with their model because what they do is that they undertake calls and competitive processes for specific industry areas. For example, they did a call on methane, some 30-ish million dollars, \$33 million, I believe. They have just completed a call on oil sands innovation. It was about a \$50 million call.

What we're doing with energy efficiency is doing a call for deployable projects that realize significant greenhouse gas emission reductions for our large final emitters, because ERA, when it was Climate Change and Emissions Management Corp., was tied to the compliance obligations under the old specified gas emitters reg. Right now they are doing an industrial energy efficiency challenge for \$35 million – we announced it a couple of weeks ago in Calgary – and there'll be more to come.

**Mr. Malkinson:** Is that in the budget? Is that \$35 million grant for the Industrial Efficiency Challenge, that you just mentioned, in this particular budget?

**Ms Phillips:** Yes.

**The Chair:** Thank you very much, Member.

As previously agreed, we will now take a five-minute break. We'll reconvene at 10:35.

[The committee adjourned from 10:29 a.m. to 10:35 a.m.]

**The Chair:** Okay, everyone. We will reconvene our meeting.

We now will go on to the members of the Official Opposition. Please go ahead.

**Mr. Taylor:** Thank you, Chair. I did not make it here earlier. I would like to go back and forth with the minister if that's possible.

**Ms Phillips:** Sure.

**Mr. Taylor:** Thank you, Minister, I'm going to ask you some questions, starting at line 2.3, water and irrigation, in the main estimates. Now, as you know, some Alberta farms and ranches have been threatened with the withdrawing of the traditional agricultural right to water. No minister, it seems like, has guaranteed that these water licences will be reinstated immediately. All that's been promised is a right to access. What does the minister mean by right to access? Does that mean this government is somehow modifying these ranchers' traditional water rights usage, or will things remain as the status quo?

**Ms Phillips:** I'm wondering, hon. member, if you could point to the line item that your queries are related to.

**Mr. Taylor:** Well, we're talking about line 2.3 in this case. Pardon me. Line 4.3.

**Ms Phillips:** In water management? Water management, line 4.3, refers to our infrastructure to manage water supplies, so dams, dam safety, operations and maintenance, capital rehabilitation, diversion structures, and so on.

**Mr. Taylor:** Yes. Okay.

**Ms Phillips:** That's item 4.3, that the hon. member is querying.

**Mr. Taylor:** Yes. Again, my question. You know, we're talking about the right to access. I kind of want to know: does that mean that the government is somehow modifying these ranchers' traditional usage rights, or will things remain as status quo?

**Ms Phillips:** I believe that the hon. member is querying a policy around Water Act approvals. Is that correct, hon. member? Mr. Chair, I believe that that's correct, that that's the nature of the question.

**Mr. Taylor:** The nature of that question, yeah. What are you going to be doing with the rights to access? How is that going to work?

**Ms Phillips:** All right. It sounds like what we're talking about – are we talking about water licence transfers?

**Mr. Taylor:** We're talking about the traditional water rights versus the right to access.

**Ms Phillips:** I'm going to call on Assistant Deputy Minister Conrad to talk about Water Act approvals and water licences. I believe that the hon. member is querying a specific decision made within the department around a policy on water licences. So, Mr. Chair, with your indulgence, I'll call on Assistant Deputy Minister Conrad to provide that detail on this policy matter.

**Mr. Conrad:** John Conrad, assistant deputy minister, operations, for the department, Mr. Chair. It's a pleasure to answer your question, hon. member. Your query is linked to what I spoke about in the earlier session, our three-year campaign plan, if you will, to address the approvals backlog in the province of Alberta on all types of approvals: Water Act, EPEA, and Public Lands Act approvals. I mentioned this morning that there are a number of tactical here-and-now things that we're doing to deal with the problem so we can be competitive and clean the cholesterol out of our approvals machinery. We're also working on innovations and new technologies.

But your question goes to the heart of the former, the tactical here and now. One of the techniques we're doing is going back through our backlogged applications, some of which date, in the case of the Water Act, to 2001. I take no joy in telling you that, but they do. We are sending out letters saying: "Hey, we're not proud, but we've had this application a long time. You're missing some information on it. Do you still need this diversion?" That's the intent of the letter. We are not taking away water rights from ranchers or anybody else, for that matter. We're just trying to clean up a backlog.

We sent out 30 letters, for example, from our Lethbridge office in southern Alberta. Twenty-seven of them were closed, where additional information was provided, and we're moving ahead finally. Other ones were: no, we don't need that. I think that's the heart of the issue that you're referring to. But I can say



unequivocally that we're not taking away water rights. We're trying to deal with an age-old problem, and we are going to deal with it.

**Mr. Taylor:** Well, thank you. I appreciate that. If I could, I would be asking a question here with regard to: if a renewable project such as a wind or solar farm requires – no. I'm not going to actually ask that one. Sorry about that.

Who would be saddled with reclamation costs – we're talking now about reclamation costs – should a renewable project fail? If we have wind power generation and that project fails, who's going to be saddled with the reclamation costs of that?

**Ms Phillips:** Well, again, we are speaking to policy. I'll do the stretch for the hon. member and simply say that these items are dealt with through the policy and planning branch, which is contained within the estimates.

Under the current system, which has been in place for some 25 years in Alberta, for wind projects benefiting private landowners, wind projects are on private land, and the arrangements are between private landowners and the proponents. Private landowners may, as a result of looking at proposals, reject any of the terms of the contracts. This has been in place for 25 years. Within the terms of an AUC approval, remediation and reclamation requirements are contained in there. Those concerns have been dealt with in southern Alberta for 25 years.

What we are doing, however, is making sure that it is explicit within the act that renewables are named. Right now they are interpreted under the word "plant," as in a generating facility, but we've done some consultation, just ensuring that they are named. However, the AUC has always issued approvals with those reclamation and remediation requirements in the arrangements. More to the point, the arrangements are between private landowners and private developers. They are commercial arrangements.

**Mr. Taylor:** I understand that. We just don't want to have another situation where we have an orphan well, where people put in projects and all of a sudden . . .

**Ms Phillips:** It's important, in this respect, to differentiate between the two activities. A well requires surface access, and a landowner may not under most circumstances say no. In the case of wind or solar, they are sited on private land, and the developers are there at the pleasure of a private landowner. The situations are very, very different.

Second of all, the scale of the projects is quite a bit different than for smaller companies who may undertake one or two wells at a time.

Third, we have already had a number of instances where wind power – we have a long history of wind energy in this province, one of the longest histories in Canada. We've already seen the decommissioning and reclamation of the Cowley Ridge facility, for example, TransAlta's old wind farm that came to the end of its economic life and has now been decommissioned. You can find those turbines at Lethbridge College at the wind power technician program.

**Mr. Taylor:** Okay. Well, thank you.

In Ontario there have been numerous reports of wind turbines causing damage to the local aquifers. It has been shown that the vibrations can cause a shift in the aquifer, leading to contamination of the same. What safeguards has this government put in place to prevent or restore damage should the same thing happen here in Alberta?

**Ms Phillips:** I believe that we would take it under advisement. I would like to see the science supporting that line of questioning. More to the point, I do not know where I see any of it in the estimates.

**Mr. Taylor:** Okay. That would be probably under 10.3 in the estimates. That is what we would be talking about.

Again, I would encourage you to look into the science because the science is being established there in Ontario, so I think that would be an important thing for you to be able to look at.

Is there any move to restrict traditional water rights in order to divert water licences from agri-usage to non agri-usage?

10:45

**Ms Phillips:** Again, I am going to look to the chair for guidance around this line of questioning. Mr. Chair?

**The Chair:** As members know, throughout the whole estimates I've been allowing quite a level of flexibility, but it is important that we do relate questions to the estimates that are under consideration. You have to be able to tie your question to the actual estimates, please. In the future I would ask that you name a line item, page number, reference, and we'll go on from there, okay?

**Mr. Taylor:** Maybe I have something here, Mr. Chair. I would like to draw your attention to *Beauchesne's Parliamentary Rules & Forms*, sixth edition . . .

**Mr. Nielsen:** Point of order, Mr. Chair.

**Mr. Taylor:** . . . section 953, page 261.

**The Chair:** Excuse me. A point of order. Yes?

**Mr. Nielsen:** Under 23(c), repetitive. We've covered this ground already, Mr. Chair.

**The Chair:** Okay. Yes. I have to agree with the member that we have raised this issue before.

**Mr. Taylor:** Can you please bring that up to me and let me know when that was covered?

**The Chair:** I can't remember in which estimates meeting we discussed it, sir, but we did discuss it.

**Mr. Taylor:** Because *Beauchesne's* talks about: "The whole management of a department may be discussed in a general way."

**Mr. Nielsen:** Mr. Chair, we've covered this already.

**The Chair:** Okay. This is what I'm going to do. Like I said, I've given all the members much flexibility in their questioning – okay? – but you need to tie it to the estimates that are under consideration. That's what we're here to do.

**Mr. Taylor:** I believe I have stated . . .

**The Chair:** No. I've ruled, sir, so thank you very much. We're now going to move on because we're taking up time.

Mr. Clark, it's over to you.

**Mr. Clark:** Thank you very much, Mr. Chair. I appreciate that. I would just like to pick up on something. Minister, I think you mentioned either yesterday or earlier today the targets for home solar installations. If we need to tie this to a piece of the business plan, we can talk about key strategy 1.1. There are a bunch of bullet points there that I think this fits quite well under. I think it was right

near the end of yesterday that you said that so far about 550 home solar installations have happened under that relevant program.

**Ms Phillips:** Yeah. It's possible that that also includes some of the commercial installations. Let me just find the . . .

**Mr. Clark:** Sure. And while you do that, I . . .

**Ms Phillips:** Ask your question.

**Mr. Clark:** Yeah. What I'm curious about is that I understand there's a goal of 10,000 home solar installations through the life of the program. Is that correct?

**Ms Phillips:** Through a number of the programs. So we have the municipal piece, and we have the school piece. Then we have the residential, the commercial. Then we have the farm piece and the indigenous piece.

**Mr. Clark:** Okay. It would be good to know if the holistic goal is 10,000 installations through all of those programs. I would like to know how many have been done to date, how long that program is set to run for. I guess what I'm curious about is: how many do we anticipate needing per year going forward to meet that 10,000 target, and if we're close, you know, kind of where we are on that trajectory and whether in fact we're likely to hit that goal.

**Ms Phillips:** Yeah. Thank you for the question. I'm going to take a moment here to find the right pieces. People are giving me paper. All right. Actually, we have a little bit more updated information here. Right now for the residential and commercial solar program for the period ending March 26, 2018 – this is pretty new – we have 5,000 kilowatts of installed capacity. We have 725 projects verified at this point, for a total amount of \$3.3 million in rebate amounts paid so far.

The program itself, I believe, is a \$48 million allocation over two years. We know that there are a number of projects in the queue now that people are making decisions based on PACE and other things. The municipal climate action centre, as I said, the farm solar: those numbers are contained elsewhere. This is specific to the residential and commercial solar program.

**Mr. Clark:** Seven hundred and twenty-five is residential and commercial combined?

**Ms Phillips:** Uh-huh.

**Mr. Clark:** Okay. And that \$48 million is over two years. Over this fiscal and next, '18-19 and '19-20, or '17-18 and '18-19? Is it last year and this year or this year and next year?

**Ms Phillips:** It's over two calendar years as I understand it. In fact, if there are more questions around this, I will get the CEO of the Energy Efficiency agency to give you the most updated numbers.

**Mr. Clark:** Sure. I appreciate that. I guess where I'm really going with this is, again, that I certainly would be onboard with the goal of increasing solar installations, and I'm interested to see how the new property tax program factors in and exactly how much uptake that drives. But if the goal is 10,000 and we're still less than 1,000 at least a year in, I'm just curious what you feel is going to change in the next 12 to 24 months to get us up over that hump.

**Ms Phillips:** First, the commercial projects are often quite a bit larger. For example, the project at Simon's on Londonderry Mall is massive. I think it's the largest in western Canada, I want to say. They've also got a parking lot piece to it. That's one individual

project. A rooftop on a roof such as a bungalow in west Edmonton is also one project, so there's a matter of scale there.

I believe that with the \$48 million allocation we indicated that if we needed to stretch it over more years, then we would, but we wanted to make sure the funds were available in the first instance to make sure, depending on what kind of uptake we had, that we could meet that demand. But we can stretch it over more years as well. Certainly, PACE will move things along considerably, as will the economic recovery. We know that through a combination of lower cost financing for these projects, awareness that they exist, and ability to invest, we will see more uptake.

**Mr. Clark:** Okay. Thank you very much.

Again, it was either earlier today or late yesterday that Mr. Denhoff was talking about the \$1.4 billion in grants that have come out of the climate leadership plan. What I'm curious about is how you're measuring the effectiveness of the money that's going out. Are we measuring that in terms of CO<sub>2</sub> reduction? Are we measuring it in terms of economic diversification, business taxes generated, jobs created? That's what I'm asking. That's a substantial investment. How do we know that's effective? How do we define what success is, and then how are we measuring that? When do we anticipate seeing a return on that?

**Mr. Denhoff:** For all of the funds that are expended out of the climate leadership fund that relate to projects, we have a process that we go through that quantifies the expected GHG reductions from a project. If you took LRT in Calgary or LRT in Edmonton, what are the expected GHG savings? But also in those instances what are the expected advantages on a socioeconomic front? It gets people to work faster, more cheaply; it enables people on a lower income to take jobs they might not have been able to. What are the economic impacts from construction, and are there any additional? We do that kind of measuring on each of the major projects that goes through the climate change funding process.

On the innovation funding we approach it similarly to the way – for example, the 80-odd million dollars we're giving to Emissions Reduction Alberta. They put out a call for proposals, say, on methane reduction. They then measure those proposals against their GHG reductions and a host of others. You know, are they sensible? Are they common sense? Are they practical? They then give us an aggregate of what they expect their GHG savings to be on those Emissions Reduction agency approved projects, and we load those into the overall expected GHG reductions for the province.

10:55

The fastest way to guarantee you've had GHG reductions is through the purchase of offsets, obviously. When a company, in meeting its compliance obligations, says to us, "Instead of giving ERA \$10 million, we've gone out and purchased \$10 million of offsets," we can claim those GHG reductions immediately because they've occurred. With ERA or with a major oil sands innovation project we claim those GHG reductions as the project occurs, and we can actually measure them, but we make estimates on what we anticipate we'll get.

**Mr. Clark:** Okay. Thank you. I appreciate that.

You mentioned methane, then. As you develop those regs, which you've referenced on page 69 in key strategy 1.1, I assume you're working with the Department of Energy on that, of course, as it relates to the overall methane. I think it's a 45 per cent targeted reduction of methane over a period of time. What I'm curious about is: when you do that, do you intend to make those regulations fairly prescriptive, as in, you know, "Thou shalt use this piece of equipment and no longer use that piece of equipment"? Or, really,

is the target to be a fairly broad thing, “Get from point A to point B, reduce methane emissions by 45 per cent, and how you do it really is of no concern”? Clearly, I would prefer the latter, where we’re saying: “What we care about is the net reduction of methane. What we don’t really care about is how you go about doing that.” Is that the mindset as you develop these regs?

**Ms Phillips:** You know, the Methane Reduction Oversight Committee, yes. I mean, it involves civil society and companies and the regulator. The approach is generally between those two poles of prescriptivity, and we need to be able to make sure that we’re meeting our targets. So there are some prescriptive ways that you can measure that you are meeting your targets through the appropriate measuring, monitoring, reporting framework. The regulator has not yet released the regulation. We anticipate that will be soon. Based on the Methane Reduction Oversight Committee’s advice to both of us ministers, we’ll have more to say about that fairly soon. What we are seeing, though, is a number of reductions already . . .

**Mr. Clark:** Certainly. My apologies. I have 10 seconds here. I would agree with you that being prescriptive in terms of the targets is very important, but being less prescriptive in terms of the methods for achieving those targets would be, I think, a better approach. Allowing industry to innovate would be my suggestion as part of that.

**Ms Phillips:** That’s been the advice.

**Mr. Clark:** Yeah. I would certainly encourage you to do that. Thank you very much.

**The Chair:** Thank you.  
We’ll now move on to Dr. Swann.

**Dr. Swann:** Thank you very much, Mr. Chair. Back and forth, if that’s acceptable?

**Ms Phillips:** Yes.

**Dr. Swann:** Moving further into the methane questions, there have been real questions about the validity of measures, two to three full differences between what the department has reported or what Canada has reported and what some independent evaluators have reported. What is your reassurance that we’re actually getting valid measures on methane?

**Ms Phillips:** Well, the first thing to do is to make sure that we’ve got the technology in place to do that measuring, monitoring, and reporting, that MMR framework, within the reg. Also, the capacity of firms to be able to do that and to report in a uniform way has been a focus for us. When Emissions Reduction Alberta went out to do a technology call around methane, a number of the projects were around exactly this question and grappling with some of these challenges.

In addition, we are also in conversations with the methane industry alliance and a number of the smaller players out there. We know that some of the larger firms like EnCana, for example, have systems in place, but some of the smaller firms may not have those systems in place, so we’re working with the industry alliance to find ways to support that uptake as well.

I don’t know if there’s anything to add, Deputy, on this.

**Mr. Denhoff:** Well, I would just say, actually, that in line with both members’ comments, the initial steps we’ve taken have really focused a lot on encouraging innovation in the industry by inducing

the behaviour. We have over 9,000 pneumatic pieces that will be installed through offset development companies. They go to a small company that figures they can’t otherwise afford to reduce their methane emissions by putting in new pneumatic controls. They say: we’ll put them in for you, we’ll pay the whole capital cost, we’ll install them, and then we’ll share the benefits from that. They get an offset credit as a result of the methane reduction, and of course they capture and retain additional methane, which increases cash flow. So we’ve provided \$50 million, as the minister mentioned, through ERA to larger projects.

The offset developer world is really active. I mean, we have three or four firms already out there doing this. Then, in addition, the minister has met with the – there’s a small methane sort of business group, and we’ve determined that we’ll provide them funds for firms that are so small that even putting together the actual methane plan, that costs you \$5,000 or \$10,000, is a burden to them. We’ll help them do that.

The other thing that I think is really important to remember on this methane work is that it’s a classic example of made-in-Alberta shaping what happens in Ottawa. If we left it to Ottawa – I know people don’t like me to say this – if we left it to a bunch of pointy-headed, condo-dwelling, cappuccino-sucking Ottawa bureaucrats to come up with the methane rules, we’re not going to like the results. So we’ve come up with our own system. It’s being negotiated between the industry and NGOs and the regulator. We agree with the members that we want to have rules that aren’t so prescriptive that you have to go and inspect every valve every Friday. I mean, it gets totally out of hand.

There do have to be milestones. If we say, as the hon. member said, “Let’s go less prescriptive,” we also want to know that after four years we aren’t in a situation where people go: “Oh, gosh. We couldn’t get anything done. Give us another four years.”

So finding that balance is critical, and we think we’re quite close between industry. But I don’t know that we’ll ever satisfy the federal government entirely on all these matters. Of course, that’s why we have these made-in-Alberta approaches.

**Dr. Swann:** So you have the technology within the department to verify these numbers?

**Mr. Denhoff:** Between ourselves and Energy and independent groups, yes.

**Dr. Swann:** Yeah. You’re satisfied that you can counter the critics and the skeptics that either say that industry isn’t doing its job or that you guys don’t have the proper technology to actually do the job?

**Mr. Denhoff:** Well, I think we’ll always have critics on both sides of the issue, but I think we’ll be in a reasonable middle ground, yes.

**Dr. Swann:** You can have some scientists from the university verify that you are doing what you say you’re doing.

**Mr. Denhoff:** I’d have to defer.

**Dr. Swann:** That’s been the question, I guess.

**Ms Phillips:** Absolutely. We do have quite a robust GHG monitoring within the department.

Perhaps ADM Savage would like to approach the mic to discuss that. It certainly is one of the areas where the climate change office has increased its horsepower.

**Dr. Swann:** Perhaps a follow-up would be: when could we expect to see the first results of your reduction efforts?

**Ms Phillips:** Well, we already have because they're being verified through the offset protocol system. Because there's a protocol in place, we know what's happening out there on the landscape.

Perhaps the ADM can . . .

**Mr. Savage:** My name is Bob Savage. I'm the ADM for intergovernmental, but I also was a former regulator for greenhouse gases in Alberta. Just with respect to the monitoring and verification we have very good protocols with respect to the offset system, and we get them third-party verified. We actually have independent companies come in and undertake the verification for those. Part of the challenge with some of the methane sources is that they're very dispersed and they're remote. We're looking at technology. We're actually doing projects and investing in remote sensing, which would give us a better job. The challenge for us is, you know: how do you know when you have a leak and not? That's where some of the discrepancy comes in. They model this. The federal government uses some model, we use a model, and that's sometimes where the discrepancy is.

With respect to the money we invest in the equipment swap-out or the money we invest in leak detection, repair, and monitoring, we're doing a lot of work there. We're investing in remote sensing technologies, trucks to go out with the right infrared technology. So there always will be, as the deputy has mentioned, some discrepancy around the precision of that, but we're making significant advances there.

In terms of our estimates and in terms of our ability to use offset protocols or projects funded through ERA, we require third-party verification of that using the best methodologies that we have. Methodologies are constantly changing.

**Dr. Swann:** Great. The minister was commenting on cumulative effects management. That's under 6.2, regional cumulative effects management. I'll just reiterate, but I've never seen a cumulative impact assessment from the department. Maybe you're doing them.

11:05

**Ms Phillips:** Well, the land-use framework – so, certainly, within LARP we have a biodiversity management framework. We have a groundwater framework. And these do speak to the overall cumulative effects of any change in the environment, and they contain within them triggers and thresholds as well.

We also do reports on our water and air. They are on the EAP website. Those are designed to alert us to systems issues. They're not just project specific; for example, what we found with the Canadian ambient air quality standards in the Red Deer airshed, and then we put together an action plan of what has to happen after, you know, CAAQS standards are sort of triggered that in the future will be exceeded.

The Chief Scientist also has the responsibility to report on the state of the environment to the public, not just to me, and that's in the act, to ensure independent monitoring. Through the regional plans as well, as I said, there are a number of different management frameworks, and they are system or geographically specific. They are designed to capture those concerns.

**Dr. Swann:** I'm aware that we have some of the highest linear disturbances in Canada, especially south of Edmonton and east. I don't know what capacity you have to say that we've gone too far, to say that we're not going to allow that development there. How do you actually make those decisions?

**Ms Phillips:** Well, you know, we do have a number of linear disturbance legacy issues. There's no question. The need for seismic restoration, for example, in caribou habitat speaks to that.

What do we do? We invest, and we work with the companies to effectively plan where they're going to do their annual allowable cut. Also, in the case of the caribou we go knock on the federal government's door because they have a huge responsibility in terms of recovering that.

**Dr. Swann:** Can we anticipate that problem and prevent that problem as opposed to going in and rehabilitating after the fact?

**Ms Phillips:** Absolutely. That's what regional planning is about. That's what it's for. For example, in the Castle region we found that the linear disturbance was extreme in some cases; you know, 1,800 watercourse crossings and 35 bridges. No one should wonder why the trout are in trouble in that context. So we undertook certain management decisions in that particular corner.

In Livingstone-Porcupine we had different challenges. So we undertook subregional planning with the communities, but what we did was that we guided that process with a linear disturbance framework and actual limits.

**The Chair:** Thank you, Minister.

We'll now move on to the private members of the government caucus.

**Mr. Malkinson:** Thank you very much, Mr. Chair. Hon. minister, I think I'll just sort of continue my line of questioning from where we left off. We were talking about Emissions Reduction Alberta. I was wondering about the grants that come through that. How do they help businesses and industry reduce their emissions? You know, specifically, just to refer to a page number, of course, it's page 69 of the business plan, 1.1, where we're talking about your climate plan.

**Ms Phillips:** Right. ERA funds in the first instance are often focused on the large final emitters, and the challenges often speak to some of the issues that large final emitters have. That's why we did an oil sands cull for some \$50 million. Now we're doing industrial energy efficiency. We see, you know, for example, that the Canadian Manufacturers & Exporters are really looking forward to that program because they have a number of petrochemical or other manufacturing folks that are captured by the large final emitters regulation, and they're looking for ways to improve their processes and reduce their compliance obligations. That's why CME has been quite a vociferous and enthusiastic proponent of the industrial efficiency programs, that we announced a couple of weeks ago, as was the Cement Association of Canada.

A lot of these firms have been certainly moving along with the specified gas emitters regulation, which is, of course, the conservative approach to pricing carbon, and have worked with us on the development of the carbon competitiveness regulation. Now they are seeing what they asked for in the first instance, which are the investments in innovation and efficiency and helping them bridge those gaps, whether it's a question of commercialization of a particular technology or assistance with actually deploying it and making the economic case for that.

**Mr. Malkinson:** With those challenges, has there been some measurable progress that's come out as a result of those challenges?

**Ms Phillips:** Yes. ERA has seen a number of really interesting projects come out of methane, for example. We just talked about that. A number of firms are either deploying the technology in reducing greenhouse gas emissions, methane emissions in particular, or around the measuring, monitoring, reporting, verification. Those were funded, for example.

We have an announcement coming around oil sands technology. It's a very, very exciting announcement. It's some \$50 million for various technologies that reduce the carbon in the barrel. It's exactly the kind of approach that Canada's largest oil producers asked for within the development of the climate leadership plan and that we are now delivering through our commitments through Emissions Reduction Alberta. They've worked with us every step of the way around those innovation funds and others, whether it's the \$440 million for other in situ oil sands projects to reduce the carbon in the barrel over there or some of the ERA challenge pieces. They asked for a robust investment in innovation and to take climate change seriously, and we delivered.

**Mr. Malkinson:** Absolutely. Well, thank you very much, Minister. I look forward to seeing those announcements when you're able to talk about them publicly.

Mr. Chair, I would hope to cede the rest of my time over to Anam if I could.

**The Chair:** Sure. Please go ahead, Ms Kazim.

**Ms Kazim:** Thank you very much, Mr. Chair. I would like to go back and forth with the minister. I was recently reading a report that speaks to how transitioning to a low-carbon economy presents a significant opportunity, specifically in terms of the commercialization of low-carbon solutions, including clean energy technologies. I understand that this can further catalyze emerging markets and support our energy sector as it works to reduce its carbon footprint and transition to a lower carbon economy. Last December you, along with ministers Bilous and McCuaig-Boyd, announced \$1.4 billion for innovation. Is this reflected in this budget?

**Ms Phillips:** The first three years are because this is a three-year operational budget. It's reflected in several departments as well: E and P, Economic Development and Trade, and Agriculture and Forestry. But the \$1.4 billion is allocated over seven years, so it's not fully captured by these budget papers.

**Ms Kazim:** Okay. On page 131, item 10, in the budget document there are some funds allocated to certain initiatives. How does this funding help diversify the economy and reduce carbon pollution?

**Ms Phillips:** You know, in the first instance, when we first consulted on the climate leadership plan, companies of various kinds, not just oil sands companies but cement manufacturers and petrochemical manufacturers and value-added agricultural producers of various kinds, came to us and said: we want to do our part, but we have an energy-intensive, trade-exposed nature to our economy, so we need to make sure we get this right. I'll never forget my first meeting with the Cement Association of Canada, who came to us and said straight up: we support carbon pricing; let's work together to get this right. So we did. They were really good partners to us on the development of the output-based allocations my deputy was talking about earlier in terms of the free allocation and then what happens after that in terms of making sure that over time, in an appropriate way, with appropriate review periods and so on, we are constantly improving our performance and investing in innovation in order to do that.

That was what was behind the innovation fund. It was what was behind the structure of the carbon competitiveness regulation. It was really a consensus between industry and government that there is a way to move beyond the intractable debates that we saw dominating both Canadian and Alberta politics in previous administrations, with previous Conservative governments.

**Ms Kazim:** Okay. That's excellent.

What kinds of projects are being funded with the \$440 million dedicated to oil sands innovation?

11:15

**Ms Phillips:** Those funds will start at \$40 million in the '19-20 budget year, rise to \$80 million in '20-21 through '24-25. That fund will help large emitters upgrade facilities and update their processes. There are a number of different technologies out there that are just at the cusp of a deployment. The idea here is that through various innovation funds, whether it's straight programmatic pieces or the green loan guarantee program or some combination of that, we are reducing the carbon in the barrel and making sure that firms that have a higher emissions intensity – there are a few of them out there on the landscape – are able to achieve those emissions reductions just as some other oil sands producers who have a lower carbon intensity have been able to do.

I don't know, Deputy, if you just want to add there.

**Mr. Denhoff:** I think it's been very intriguing. We've been meeting with the large oil sands companies on what capital projects they would pursue if they had access to this innovation funding, and they have a wide variety of really intriguing world-leading technologies to reduce the emissions per barrel. Of course, that's part of our overall narrative to the world, which is that we're bringing down the emissions per barrel in our oil sands oil and improving the technologies to do so. From the initial statements that the companies have made about where they intend to invest these funds, as we negotiate the grant agreements with them, there are some really exciting developments that I think will be revealed over the next few weeks or months. I think it will help us a lot in terms of emissions per barrel, so it's quite fascinating.

**Ms Phillips:** Some of these programs are also helping attract new investment as well. We are seeing that developing, and that's a good thing.

**Ms Kazim:** Indeed. What kind of projects are being funded with the \$240 million for industrial energy efficiency?

**Ms Phillips:** Those are industrial energy efficiency projects for both the large final emitters and folks who are outside that framework, outside the carbon competitiveness regulation. There are a number of opportunities there, and we wanted to make sure that we've got programs that are aimed at the whole economy, at the whole sort of industrial and commercial base of the province, and providing those opportunities to everyone. We'll have more to say on industrial efficiency fairly soon. I made the initial announcement at the Calgary Chamber of commerce a couple of months ago, and we'll have a little bit more clarity coming up here within two weeks.

**Ms Kazim:** Okay. What kinds of projects are being funded with these \$63 million in grants to bioenergy projects?

**Ms Phillips:** Well, these are funds that support the biodiesel-, ethanol-, and biomass-based electricity generation, essentially those three fields. We have a tremendous amount of potential in Alberta around bioenergy, particularly in southern Alberta.

**The Chair:** Thank you, Minister.

**Ms Kazim:** Thank you.

**The Chair:** We'll now go back to the Official Opposition. Please go ahead, Mr. Hanson.

**Mr. Hanson:** Chair, I'd like to go back and forth with the minister.

**The Chair:** Go ahead.

**Mr. Hanson:** Just so I don't get into trouble, I will be referring to line items 5.1, fish and wildlife policy, and 5.2, fisheries management. I have a fairly specific question, Minister. The Cold Lake fish hatchery is designed to rear walleye, which is a very popular game fish here in Alberta. They have the capability of raising a hundred million fry a year, and it's not being utilized at this point. I have it from a very reliable source, I might say, that they estimated that it would cost just over \$100,000 a year to maintain Lac La Biche as a fishery utilizing the Cold Lake fish hatchery. Why aren't we utilizing that? We have a great asset here in the province. It was designed for that function, yet we're not utilizing it. I think it would do a lot for tourism, especially in northern Alberta.

**Ms Phillips:** Sure. Hon. member, I think what I will undertake to do is get back to you and to your office specifically around those opportunities. We discussed it earlier. I'm not sure if the hon. member was here around the budget allocations to the public hatcheries. I believe it was some \$4 million in capital and \$2.6 million in operating. I will have a look at those numbers within the voted estimates for this year and see if we can accommodate those requests.

**Mr. Hanson:** That would be fantastic, Minister.

Just one other regarding the consultation. I was at a couple of the meetings that were held, and at the one up in Lac La Biche especially I think there were upwards of at least 16 staff from the department there. A lot of the messages at every meeting I went to were quite specific. A lot of people had some pretty good ideas about the catch-and-release and tagging and all of that, yet when the new regulations came out, we just saw more lake closures. It just didn't appear that the biologists had listened at all to what was being said at these meetings. It may be slightly off topic, but is there the potential that there was a predetermined outcome and that they were just kind of going through the paces a little?

**Ms Phillips:** Absolutely not on predetermined outcomes. However, I'm going to let ADM Goulden talk a little more about it.

**Ms Goulden:** We have heard very clearly from those stakeholders in that area about their desire to keep some of the walleye that they catch. We have made promises to them that we are going to look at some specific things around those particular lakes. Not at all was there a predetermined outcome for what was going on.

**Mr. Hanson:** Okay. One of the issues that was brought up quite frequently – and people weren't very happy with the answer that they got – was that right now you can go to Lac La Biche and catch a hundred walleye in a day, but you have to throw them back because you can't keep any. The fish mortality rate: from fishermen that actually fish the lakes, they say that it can be anywhere from 15 to 30 per cent, yet the biologists would try to tell them that it's only 5 per cent. Even at 5 per cent you get a hundred fishermen out there catching a hundred walleye a day and killing 5 per cent of them and not being able to keep any; it just doesn't seem to make sense. That's why people were pushing for maybe some restrictions, you know: go out there, catch one, take it home rather than catch a hundred and kill five.

**Ms Goulden:** Yeah. For sure. That's absolutely something that we're looking into, and we have agreed with the Alberta Fish and Game Association to have a scientific review. What we have in that

situation is that there are some differences of opinions around the science, which is essentially what you've highlighted. We've agreed to say: "Yeah. Let's look into that. Let's have some sort of third party come in and take a look at our science together. Let's sit down and really take a look at what's going on there."

**Ms Phillips:** It was part of what I announced at the AFGA a couple of months ago.

**Mr. Hanson:** Okay. When can we expect that review to start, and how long do you think it will take?

**Ms Phillips:** I believe it's already started.

**Ms Goulden:** It will be done. It will be done within the year.

**Mr. Hanson:** Okay. Well, that's great news. I really look forward to your comments further down on the Cold Lake fish hatchery. Like I said, it's sitting there, it's a great facility, and we're just not utilizing it.

**Ms Phillips:** We'll follow up with your office.

**Mr. Hanson:** Thank you.

Now I'll defer my questions over to my colleague.

**The Chair:** Please go ahead, Mr. Loewen.

**Mr. Loewen:** Okay. Thank you.

Talking about Emissions Reduction Alberta, what percentage of dollars spent under that goes to other provinces, and what percentage is spent internationally?

**Ms Phillips:** ERA is not consolidated with the budget estimates. They are, in fact, arm's length. That's how they were set up under the act by the previous government. Having said that, the vast, vast, vast majority is within Alberta. Sometimes there are partnerships with firms outside or universities outside of the province, but the idea is that the emissions reductions are, obviously, achieved within Alberta.

**Mr. Loewen:** Okay. With programs like the light bulb program, where we had an Ontario company come in, and also some of these, of course, wind farms and different things that the government is working on, what percentage of that money that comes from the carbon tax to incent those programs is leaving Alberta?

**Ms Phillips:** If the member is querying the Energy Efficiency Alberta estimates, we can speak to the nature of the contracts. Essentially, we shared those contracts with the hon. members last year at about this time. Certainly, a company like Ecofitt, for example, has moved a number of its operations here and hired, in fact, hundreds of Albertans.

**Mr. Loewen:** Has there been any analysis of, like, how much of the money that the government gave Ecofitt, for instance, stayed out of Alberta, didn't stay in Alberta?

**Ms Phillips:** Well, the fact is that program delivery is done after a competitive process, after a request for proposals, and leveraging the power of the market to . . .

**Mr. Loewen:** No. I understand that. I'm just specifically asking about how much money of that contract did not come back into Alberta.

**Ms Phillips:** The hon. member seems to be suggesting that we build this bureaucracy within Alberta and not leverage the expertise of

the private sector. I would suggest that that is not the public policy in this instance.

11:25

**Mr. Loewen:** No. I'm simply asking a question. How much money of the money that was given to Ecofitt and how much money of the money that's going to these other companies that are coming in, setting up wind farms and that sort of thing, is not staying in Alberta?

**Ms Phillips:** Of course, we're a market economy. I'm going to ask the ...

**Mr. Loewen:** Is that something you could undertake to provide?

**Ms Phillips:** ... deputy minister to answer the question.

**Mr. Denhoff:** No. I think we can answer that directly. I always do find it kind of an odd question because it's sort of like asking how much of the money Shell makes on oil exploration and development stays in Alberta.

**Mr. Loewen:** But we're not talking about Shell.

**Mr. Denhoff:** Well, we are. We're talking about the same principle.

**Mr. Loewen:** We're talking about ...

**Mr. Denhoff:** No, no, no. Just a minute. Let me have an opportunity to answer the question.

**The Chair:** Excuse me. It's my responsibility to maintain a certain level of decorum during the estimates meeting. Speaking over one another I don't consider to be respectful. I would ask all members around the table to please respect the person that's talking, both ways, okay?

I'm not finished. I've also noticed that the side conversations are getting a little bit loud, so I want to ask you to reduce the volume on those, okay?

We're almost there, people. We're almost there, okay? So, please, let's just be really respectful. I'm trying to provide flexibility for you to go back and forth with each other so that there's a flow to the discussion, so that you don't have to keep saying, "Mr. Chair," "Mr. Chair," but if the conversation is going to deteriorate, then I'm going to insist that that be the case.

It's up to everyone here around the circle to maintain a level of decorum, and we can get through the next half an hour real easy, okay?

**Mr. Denhoff:** Mr. Chair, of all the funds provided to Ecofitt, they're broken into three categories. One, the materials, supply – you know, the actual equipment, thermostats or light bulbs or whatever – are purchased in the market. Of course, generally those aren't manufactured in Alberta, just like lots of other things. The second component is labour. Ecofitt has spent a ton of money hiring hundreds and hundreds of workers from Alberta, 385 employees in Alberta. They purchased and established a headquarters and warehouse in Calgary. Then, of course, there's the profit of any company that invests in Alberta.

It's a very dangerous path to go down, though, because in British Columbia we have hundreds or thousands of workers from Alberta who are working on site C. We have thousands of workers from Alberta who want to work on Kinder Morgan's TMX project.

**Mr. Loewen:** Can I ...

**Mr. Denhoff:** So when we attack companies who are working in Alberta from another jurisdiction, we leave ourselves open ...

**Mr. Loewen:** Can I interrupt?

**Mr. Denhoff:** ... to another jurisdiction saying: you can't as an Alberta company work in our jurisdiction.

**Mr. Loewen:** With all due respect, I asked a specific question ...

**Mr. Denhoff:** Well, I think I'm trying to answer it.

**Mr. Loewen:** ... and you have not gotten anywhere close to the answer.

**Mr. Denhoff:** Yeah. Three hundred and eighty-some employees.

**Mr. Loewen:** I'm going to ask the question one more time very clearly for you. Have you done any studies and is there any information on how much money that was given to Ecofitt from the Alberta government did not stay in Alberta? That's the specific question. Now, if you can't answer that question, then could you undertake to provide it?

**Mr. Denhoff:** All of the money given to Ecofitt except their profit and materials purchased, which aren't manufactured in Alberta, was spent in Alberta.

**The Chair:** Thank you, sir.

We'll now move on to Mr. Greg Clark.

**Mr. Clark:** Thank you, Mr. Chair. I'm going to focus my next round of questions on the carbon competitiveness incentive regulation, which I understand replaces the specified gas emitters regulation, just to make sure that I'm clear on what we're discussing here. I just want to learn a little more about, I guess, the mechanics of how this all fits together in terms of how it contributes to emissions reduction.

One of the questions I have as I look into this a little more – I guess I want to avoid some unintended consequences in terms of, perhaps, if a business model of how an organization chooses to arrange its affairs may or may not fit with the regulation as it's currently worded. I'm just curious. If a company were to set up its own, say, you know, cogeneration facility – and that's its own thing – versus contracting with another company to do essentially the same thing, are those two things treated the same within the regulations, or does it need to be within your own sort of business structure? I'm just kind of curious how that works in the regulations.

**Ms Phillips:** That's a very specific question, hon. member, speaking to how the compliance payments are done, what is counted and what is not, so I'm going to defer to ADM Mike Fernandez from the climate change office, who has been the lead on developing these regs.

**Mr. Clark:** Thank you.

**Mr. Fernandez:** Thank you and good morning. If I understand your question correctly, regardless of who builds the cogen facility, it would have an owner, it would have a regulated approval with us, and it would have a facility ID, so the owner and operator of that facility would be subject to the CCIR. They may be contracting it out to a neighbouring facility or another owner-operator of which they are within the ring fence, but that would come down to a pure business relationship if I get the gist of your question.

**Mr. Clark:** Do they get the same credit regardless? I mean, if there's ultimately the same emissions reduction at the end of the day, is it treated the same no matter who owns it?

**Mr. Fernandez:** It is treated the same. I mean, a unit of electricity would have to beat or meet the OBA, the output-based allocation, system that's set up in our new regulation, and the credit is generated based on how much you beat it by. Then you can use that credit to satisfy compliance, or you can sell them to the Alberta offset market.

**Mr. Clark:** Thank you very much for that. I appreciate that.

The credits themselves: can those credits be used exclusively to address your obligations, or can credits only be used to satisfy a certain portion of it? Is cash required? If you have a hundred per cent credit to cover it, is that acceptable, or does cash come into this at some point?

**Ms Phillips:** I'll defer to Mike Fernandez.

**Mr. Fernandez:** In Alberta we work very hard to maintain a balanced offset and crediting system. So for every one of the facilities that comes in or beats their OBA by a tonne, you would generate one emissions performance credit, or you can go to the offset market and purchase them. When it comes to satisfying compliance, there is an annual cap on how much compliance can be satisfied through the use of offsets or EPCs. I believe this year, in the 2018 calendar year, it's 50 per cent, and then it will escalate in 2019 and 2020 by I believe an additional 5 per cent. So by the time you get to the 2020 compliance year, you could use 60 per cent of credit to satisfy your compliance to the province.

**Mr. Clark:** So you're confident that there is a sufficient market for those credits. You're not concerned that there's a lack of demand or that the credits that do exist would perhaps be diminished in value? You're satisfied there is, in fact, demand for those credits?

**Ms Phillips:** I'll defer to Deputy Minister Denhoff on this.

**Mr. Denhoff:** Yeah, we are. We've done quite a bit of work in the last while to assess the demand, and as I say, part of it is the increasing interest on the methane offset side. Also, generally companies are keen to use the offsets to meet their compliance costs because it's a cheaper way of them meeting the compliance costs. So the uptake we have forecast over the next several years, and it looks fine.

**Mr. Clark:** Okay. Thank you very much. I appreciate that. Thank you for those answers.

I'm going to flip back to some discussion of flood mitigation. It was actually the Member for Calgary-Glenmore who had asked an interesting question that I wanted to just pick up on. You listed off a number of initiatives within your ministry that you're funding related to local flood mitigation, specifically in Calgary, and one of the ones you'd mentioned was Heritage Drive. I think you also mentioned upstream at Glenmore Trail. I guess I'm just curious, because it reminded me of a question a constituent had asked me.

As the city of Calgary raises the gates on the Glenmore reservoir, of course, that's going to raise the water level of the Glenmore reservoir. One of the concerns was that that would perhaps create some risk in other parts of the reservoir because the water level is higher. Is the Heritage Drive flood mitigation project or any of the projects that you discussed earlier today related to that city of Calgary project to attenuate any potential risks of raising the reservoir as a whole?

**Ms Phillips:** I think that's a level of detail, hon. member, that is beyond my brief. Our folks from the ACRP division can follow up with your office on that specific query.

**Mr. Clark:** Yeah. I would appreciate that. It did certainly twig something that a constituent had raised for me. It would surprise me very much, frankly, that there was not that level of consideration. I don't think you're going to raise the reservoir at one place and not think about the fact that it may have some knock-on effects. I just wanted to raise that.

Continuing on, then, on flood mitigation, I just wanted to pick up again on something you'd said yesterday as it related to the floodway mapping in Drumheller and the regional municipality of Wood Buffalo. You said that there'd be a two-year delay in the effective date for those regulations to allow them, in the case of Wood Buffalo, I believe, to recover from the fires and for Drumheller to accommodate certain legacy developments there. What I'm not really clear on is: what happens after two years? If we're continuing to allow those areas to develop, what changes in two years' time? I wasn't clear on that.

11:35

**Ms Phillips:** Well, I think that, as the member knows, we still do not have a flood development regulation, and in the meantime municipal bylaws prevail. It would allow those communities to make further progress on possible use of special policy areas and so on. The floodway development regulation development is a shared responsibility between Municipal Affairs and Environment and Parks. If anything is done, it will be done in robust consultation with the affected communities.

**Mr. Clark:** Okay. Thank you very much.

I will go back, then, to something I just had on another page, page 71, key strategy 2.2: "support economic investment opportunities focused on environmental conservation and green jobs." You have spoken a bit to it already, but I'd appreciate more clarity on exactly how you determine which projects to support, either through ERA or any other means. I know this ties back to the \$1.4 billion, which, again, is a substantial amount of money. I'm just curious: really, how do you know? How do you decide? What criteria do you use to decide expenditure of those funds?

**Ms Phillips:** Well, as we indicate, we do have the climate leadership outcome framework, that guides many of the program decisions that we make. Really, you know, climate policy is complex, for sure, but as we discussed with the Auditor General, there are only so many emissions reduction opportunities that are economically achievable, and they prevail across jurisdictions. They're usually in things like renewables; electricity, in large and small scales; they're in energy efficiency in your building stock but also your industrial processes; and then they're in your transportation sector. Really, those are the big pieces.

Now, in Alberta we have a situation where we didn't have efficiency programs before, so we have some really low-cost emissions abatement opportunities there. We also burned more coal than in the rest of the country combined, so really low cost per tonne emissions abatement opportunities. Our coal phase-out was about a \$10-per-tonne abatement cost. I contrast that with Saskatchewan's approach to Boundary dam, which is something north of a \$100-per-tonne abatement.

You know, these things are fairly straightforward. You can do cost per tonne, but also you need to look at what is most deployable and the nature of the economy. That's why we have focused on oil sands innovation, because they're a good chunk of the pie in terms of our large final emitters. We have looked at industrial efficiency in the



broader economy because we know that, absent programs before, we have a number of low-cost opportunities. We have relative competitive advantage in bioenergy, so we're supporting those programs because they deliver greenhouse gas emissions reductions and also serve to diversify the economy, particularly in southern Alberta.

**The Chair:** Thank you, Minister.

We'll now go to the private members of the government caucus.

**Ms Kazim:** Thank you, Mr. Chair. I would like to go back and forth with the minister.

I would like to continue where I left off in terms of talking about the funding allocated towards low-carbon solutions. My next question is: are we seeing increased investments in renewables due to the \$400 million in loan guarantees?

**Ms Phillips:** Well, the loan guarantee program is still under development, but the essence of it is – I'll actually allow the deputy to update the committee on the progress of the loan guarantee program and the structure of it.

**Mr. Denhoff:** We're working through the Energy Efficiency Alberta agency to create the ground rules by which firms can access loan guarantee funds. We've had quite a bit of interest from the indigenous community on projects related to renewables, from other firms on the renewables side. Also, on the loan guarantee side we've had interest from larger industrial corporations on regular projects. It ties into the reality of continuing large-scale major capital project investment in Alberta. If you look at the last nine calendar years, the \$16 billion in capital projects starting construction now is the largest capital construction project under way in Alberta except for two years, the sort of hundred-dollar-oil years. But it exceeds 2010, '11, '14, '15, '16, and '17.

So we see from both the wind/renewable side, where people are opening offices in Calgary, hiring workers, starting training programs to train workers, and from the regular industrial side a massive new investment in capital projects, whether it's Suncor filing for 40,000 barrels a day or Koch brothers filing for their project in northeastern Alberta or renewable projects. There's just a terrific amount of capital investment going on.

**Ms Kazim:** Okay. That's perfect.

Now I would like to request my fellow Member for West Yellowhead to continue with his questions.

**Mr. Rosendahl:** Thank you. I'm referring to page 69 in the business plan, with 1.2 or 1.5 as part of it. The question is around the most beautiful places and diverse landscapes. When we look at that, each region is unique, with varying recreational opportunities and precious ecosystems, and I can certainly attest to that when I'm talking about West Yellowhead and the foothills and mountains and streams and everything else that we have there. In looking at that, I know that most Albertans take pride in being strong stewards of the public lands, but occasionally there are those who don't always respect them, unfortunately. So the first part of the question is: what are your plans to ensure appropriate public land use?

**Ms Phillips:** Well, thank you, hon. member. In fact, I met with Yellowhead county I want to say a few months ago in the context, I believe, of AAMDC. I believe it was in the fall. They articulated to me some issues in the hon. Member for West Yellowhead's riding, particularly with respect to some sand dunes area . . .

**Mr. Rosendahl:** The Brule dunes.

**Ms Phillips:** Yes. Thank you.

. . . where they were having some issues related to enforcement and so on. I'm happy to follow up with Yellowhead county, hon. member, on that. It's part of our overall approach to enforcement. We changed things considerably after our government came in because we heard from counties like Yellowhead county, like folks in southern Alberta and elsewhere along the eastern slopes that enforcement was a real issue, and it hadn't been taken seriously.

We moved resources around, and we've got now 300 fish and wildlife officers, conservation officers, and seasonal park rangers patrolling public land, parks, and protected areas. We've got eight seasonal problem wildlife technicians, that take pressure off our fish and wildlife officers so that they can focus on actually doing enforcement. We've got 20 seasonal park rangers dedicated to public land issues. We've got new educational materials that are being distributed.

In addition, we have the ability to issue tickets in public land-use zones. Instead of having officers having to issue a court summons and then wasting their time sitting in court, we moved forward with specified penalties in public land-use zones, which means that there can be an immediate consequence, that's far more efficient to deal with people's infractions with the law. In '17 provincial officers issued 6,500 charges and warnings; for example, things like entering closed areas, fishing without a licence, cutting down trees inappropriately, or operating off-highway vehicles without insurance or registration, that sort of thing. Of that, the majority of them were, in fact, warnings or educational-type interactions. Those specified penalties do allow officers another tool in their tool box.

**Mr. Rosendahl:** With that in mind, then, Minister, can you indicate where the enhanced enforcement is reflected in the budget? Can you indicate the line item? I was trying to find it, but I thought it was under 3.2.

**Ms Phillips:** It's within the operations division, most of it. The park rangers are within the parks budget, but the operations division is most of the COs and so on, as I understand it. Of course, we share these efforts with Justice and Solicitor General because they actually have responsibility for the fish and wildlife officers.

11:45

**Mr. Rosendahl:** Okay. Well, thank you.

I'll go on to the next part I like in our areas, the provincial parks. I used to work for parks many years ago. Investments in parks over the last few years were minimal, and maintenance was long overdue, which I can certainly attest to. Investment in parks is signature to this government and leads to increased tourism, jobs, and of course recreation for all Albertans. What did you invest in the Kananaskis region in the last year?

**Ms Phillips:** I'm going to have to pull those specific answers to those questions, hon. member. Just indulge me a little bit. I don't want to get the numbers wrong. The overall capital plan is \$38 million this year and \$238 million over a number of years. A number of the investments this year are towards the implementation of the South Saskatchewan regional plan, some \$10 million, I believe. A large amount of that implementation of SSRP is investing in Kananaskis facilities of various kinds. I believe it was last year that we upgraded the emergency management piece. This year we're moving forward with a number of trailheads, campground expansions, water system improvements, those sorts of things.

**Mr. Rosendahl:** Well, thank you. I know that there were some investments slated for some parks in West Yellowhead, and I

certainly appreciate that because some of the parks in that area definitely need some increased work. I certainly appreciate that.

The next question, then, leads into the fact that we extended the camping season. The increased bookings in provincial parks and increased revenue: is that reflected in this budget that you're aware of?

**Ms Phillips:** Yes. We have parks dedicated revenue in the revenue section of the estimates document. In particular, the RV Dealers Association came to us with a couple of really good ideas around extending camping season, which we did. We did it in '16 and expanded it to more sites in '17. It's really weather dependent on whether it ends up generating more revenue or not. I believe it was in 2016 when we had a particularly cold fall and it didn't have as much uptake, but I think it was last year that people were able to enjoy camping into September at higher rates. Again, with parks, of course, we are making sure we're working hard to attract visitors and to enhance that visitor experience, and that's reflected in the higher visitation numbers, that keep increasing every year, but some of it is just dependent on whether we get a string of nice weekends through September or not.

**Mr. Rosendahl:** Well, thank you, Minister.

I'll now turn it over to the Member for Calgary-Currie.

**Mr. Malkinson:** Thank you very much, Mr. Chair. [A timer sounded] Oh, that was quick.

**The Chair:** We'll now go back to the Official Opposition.

**Mr. Loewen:** Thank you very much. We'll go back and forth.

I just want to ask: how many metric tonnes of greenhouse gas emissions were reduced when the carbon tax went up 50 per cent, from \$20 to \$30 a tonne?

**Ms Phillips:** As the hon. member knows, greenhouse gas emissions inventories are reported on annually, and they're reported through Environment Canada. I believe we now have our preliminary 2015, that has been verified by Environment Canada. I know that there's been a public release of their preliminary data, and that did show a decrease in greenhouse gas emissions from the electricity sector in particular. That's the most recent data that we have.

**Mr. Loewen:** Is there any kind of metric tonne measurement on that that's specifically, you know, from the carbon tax going up from \$20 to \$30?

**Ms Phillips:** Well, there's modelling, hon. member, and that is contained within the climate progress report that has been available publicly for some four months now.

**Mr. Loewen:** Okay. Are there any estimates done as far as how many metric tonnes of greenhouse gas emissions will be reduced when the carbon tax goes from \$30 to \$40 a tonne?

**Ms Phillips:** Certainly, that modelling has been released and has been publicly available for some time. From now until 2030, in the context of some of the innovation investments, we're looking at potentially going as low as 222 megatonnes.

**Mr. Loewen:** Do these numbers specifically refer to the carbon tax?

**Ms Phillips:** Yes. They refer to the price on pollution that is being applied across the economy.

**Mr. Loewen:** The carbon tax?

**Ms Phillips:** Yes.

**Mr. Loewen:** Specifically?

**Ms Phillips:** Yes.

**Mr. Loewen:** Okay. Now, has there been any analysis on how much money from each renewable project incented by taxpayer money stays in Alberta versus how much leaves Alberta?

**Ms Phillips:** The renewable energy auction is structured as a contract for difference, so through that competitive process companies provide a strike price in a competitive environment. If the electricity price . . .

**Mr. Loewen:** Has that analysis been done is what I'm asking? Has that analysis been done?

**Ms Phillips:** Well, there are certainly projections around how the contract for difference . . .

**Mr. Loewen:** How much money will stay in Alberta versus how much money leaves Alberta? That's the analysis I'm asking for. How much money of a renewable project that's incented with taxpayer money stays in Alberta versus how much leaves Alberta?

**Ms Phillips:** It sounds like the hon. member is looking for ways in which we may want to . . .

**Mr. Loewen:** I'm just purely asking a question, Minister. I'm purely asking a question for which I just want an answer.

**Ms Phillips:** I'll give an answer, which is that the hon. member appears to misunderstand how the market works.

**Mr. Loewen:** So the answer is: there has not been any analysis done.

**Ms Phillips:** The answer is that there are projections around how the contract for difference will be supported through the renewable energy program.

**Mr. Loewen:** How about an analysis done on how much money of renewable projects that are incented with taxpayer money stays in Alberta versus how much leaves Alberta? Has there been any analysis done on that specifically?

**Ms Phillips:** I would answer the question with . . .

**Mr. Loewen:** It's actually a yes or a no. Either it has been or it hasn't been. There are only two choices.

**Ms Phillips:** It is not a yes-or-no question.

**Mr. Nielsen:** Point of order, Mr. Chair.

**The Chair:** Mr. Nielsen.

**Mr. Nielsen:** Under I believe it would be 23(j), language likely to create disorder. The minister is actually attempting to answer the question, but the member opposite is clearly not giving her that opportunity to answer. I've certainly seen him interrupt her within a few seconds. I mean, let's give her at least 10 before we start to interrupt her.

**The Chair:** Okay. Thank you.

**Mr. Loewen:** I can speak on it now? I asked specific questions. I only ask for specific answers.

**Mr. Nielsen:** Then, you've got to give the minister a chance to . . .

**Mr. Loewen:** It's not your turn to speak.

I ask specific questions. I only ask for specific answers. If the minister does not want to answer the question, she can say that. It's very simple. I'm getting paid by the taxpayers of Alberta to ask questions here today. The minister is getting paid by the taxpayers of Alberta to answer questions here today. That's very simple. If she doesn't want to answer the question, then I don't want to hear some rambling that has nothing to do with the question I asked. I think that it's out of respect for the question that I get an answer that somehow relates to the question I asked. If it doesn't, then I want to move on to another question. I only have so much time, and I don't want to waste it with this.

**The Chair:** Uh-huh. I think we can all agree that we don't want to be wasting anybody's time. It's absolutely important that I communicate to all members, as I have before in estimates, that the minister can answer the question however the minister deems necessary. I can't force the minister to respond to your question in the way that you would like the minister to respond to the question. So what I would suggest, hon. member, is that if you're not getting the answer that you require, you move on to another question.

**Mr. Loewen:** That's what I would like to do.

11:55

**The Chair:** Okay. At the same time, though, as I expressed earlier on in the meeting, it's my responsibility to maintain decorum in our meetings, and we can't have people speaking over each other. I'm sure that you understand that that is not fitting to the environment that we have here in this committee. We want to make sure that we respect one another, right? It gives me absolutely no pleasure to act in a patriarchal form, treating the members around the table as if we were in grade school. I want to ask the members to please ask your question, and then expect an answer.

**Mr. Loewen:** That's what I would expect. Yes.

**The Chair:** And then carry on with your line of questioning, but please don't be talking over one another, okay?

Mr. Loewen, you still have time.

**Mr. Loewen:** Okay. Thank you.

Now, under the business plan, page 70, linking performance measures to outcomes, 1(a) talks about tracking progress. Under the climate leadership plan what I would like to know is what is the actual greenhouse gas reduction and the cost of all the different programs that are initiated under it?

**Ms Phillips:** Sure. The climate progress report was released, I believe, in December of 2017 and contains all of the information that the member is looking for.

**Mr. Loewen:** Okay. So there's a breakdown on the emission reduction on the coal phase-out?

**Ms Phillips:** Oh, certainly.

**Mr. Loewen:** How about the emissions cap on the oil sands?

**Ms Phillips:** Well, the limit on emissions articulated at 100 megatonnes, yes, is of course part of the whole package that the oil sands companies – you know, it was part of the things that they wanted to see us work on as part of the consultation process that we undertook in summer and fall of 2015.

**Mr. Loewen:** Okay. How about micro and small-scale electricity generation?

**Ms Phillips:** A number of the pieces that the hon. member is looking for in terms of our modelling on greenhouse gas emissions reductions are contained within the climate progress report that was released in December of 2017.

**Mr. Loewen:** Okay. So the actual per-tonne carbon emissions reductions of micro and small-scale electricity generation is in there.

**Ms Phillips:** For example, the solar projections . . .

**Mr. Loewen:** I'm just asking about this one.

**Ms Phillips:** Well, solar is micro. For example, when we announced the solar program, we also announced our projected greenhouse gas emissions reductions.

**Mr. Loewen:** So I'll be able to look at that and find out what the micro and small-scale electricity generation reduction portion is?

**Ms Phillips:** From programs that have been announced. When we announced that particular microgeneration incentive program, we also announced the projected emissions avoided and associated with that particular program. Yes.

**Mr. Loewen:** Okay. How about the provincial LED highway lighting program?

**Ms Phillips:** Certainly, that information is out there, as is the information around the coal phase-out under the Harper government.

**The Chair:** Thank you very much, Minister.

Now we'll go over to the private members of the government caucus.

**Mr. Malkinson:** Thank you very much, Mr. Chair. Seeing as I think we have, like, seconds left, I'd just like to take this opportunity to thank the hon. minister and all her staff and the staff that is on the backbench there who've been helping us with these estimates. We look forward to seeing you guys next year. Thanks for all the good work you guys do in keeping our environment safe and having our emissions reduced, hon. minister. Again, thank you very much.

Thanks to all my colleagues as well for a spirited estimates debate on this.

Mr. Chair, how much time do we have left?

**The Chair:** Mr. Malkinson, we have approximately 18 seconds left.

**Mr. Malkinson:** Well, then I'd like to take that 18 seconds to thank you and the committee clerk and *Hansard* and everyone for having these estimates run smoothly while I run out the clock on that, Mr. Chair.

**The Chair:** I apologize for the interruption, but I must advise the committee that the time allotted for the item of business has concluded.

I would like to remind committee members that we're scheduled to meet tomorrow, Wednesday, April 19, at 9 a.m. to consider the estimates of the Ministry of Municipal Affairs.

Thank you, everyone. The meeting is adjourned.

[The committee adjourned at 12 p.m.]









