HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on Environment and Sustainable Development

ENVI • NUMBER 037 • 1st SESSION • 41st PARLIAMENT

EVIDENCE

Thursday, May 17, 2012

Chair

Mr. Mark Warawa

Standing Committee on Environment and Sustainable Development

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● (0900)

[*English*]

The Chair (Mr. Mark Warawa (Langley, CPC)): We'll call this meeting to order.

I want to welcome everyone here, this being the 37th meeting of the Standing Committee on Environment and Sustainable Development, as we continue our study on the creation of a national conservation plan.

We have five groups of witnesses today, and each has ten minutes. Then there'll be a wrap-up.

We'll begin hearing from the Canadian Association of Petroleum Producers and then we'll introduce the next group.

● (0905)

Mr. David Collyer (President, Canadian Association of Petroleum Producers): Good morning, Mr. Chairman and members of the committee.

My name is Dave Collyer. I am the president of the Canadian Association of Petroleum Producers. With me today is Dave Pryce, who is the vice-president of operations at CAPP, and three representatives from our member companies: Richard Dunn from Encana Corporation, Murray Elliott from Shell, and Gordon Lambert with Suncor.

I'm going to provide an overview of our industry's approach to conservation and our views on the proposed plan, after which member representatives will provide examples of the various conservation tools and practices they employ within their respective corporations. Then I'll conclude with some very brief comments.

You may have noticed that I skipped Brenda Kenny. Brenda will have separate remarks from CEPA, the pipeline association.

Let me start by saying that CAPP is supportive of efforts to develop a broad vision for conservation in Canada. That being said, it's important to recognize that conservation involves many governments and a multitude of stakeholders. In that context, we would propose that it would be more constructive, and I think realistic, to focus on development of what we would call a national conservation framework, which establishes broad goals, principles, and priorities under which conservation would be advanced in Canada, rather than what would be perhaps a more prescriptive—and perhaps less realistic and achievable—national conservation plan. In our view, this is more than a semantic difference, and we would encourage the committee to consider repositioning this initiative along those lines. We can address that further in questions, if you wish.

From our perspective, a national conservation framework, or NCF, as I'll refer to it going forward, should align federal, provincial, and territorial conservation initiatives under one broad framework; it should provide a model for integrated planning that realizes both environmental performance and economic growth; and it should provide leadership and direction with regard to the policy and regulatory challenges that Canada faces in supporting and advancing conservation and biodiversity.

I should note that while this presentation will focus on land-based conservation, we believe that the framework I'll be describing is in most respects equally applicable to marine conservation.

Let me start with a few comments on conservation principles. We've consistently articulated three principles that we believe should be the broad basis for environmental policy and regulation. They should also inform the development of a national conservation framework.

The first principle is balance. The NSF should focus on conservation within a policy context that concurrently advances environmental performance, economic growth, and energy security and reliability.

Second, the NCF should address intra- and intergovernmental coordination. In our view, the NCF should serve to align interests within and among governments to reduce overlap and duplication and to improve both efficiency and effectiveness. Importantly, it should also strive to integrate conservation and biodiversity considerations into a broader planning framework. An example is the land use planning work under way in the provinces of Alberta and British Columbia.

Third, there should be clarity and predictability in the process. The NCF should provide stakeholders with clarity and predictability with regard to government policy as it pertains to conservation and biodiversity.

Importantly, in developing an NCF, aboriginal consultation must be considered by governments. We highlight the ongoing need to improve the aboriginal consultation process for the benefit of all parties.

Finally, we would observe that consideration of the NCF is, in our view, very well aligned and entirely compatible with the government's broader actions to encourage and enable responsible resource development in Canada.

I also want to talk a little bit about defining the scope of conservation strategies. We would encourage the committee to take a broad view of the scope of conservation to encourage innovation and excellence in land use approaches and to enable the application of a diversity of conservation tools.

We think there are three dimensions of conservation the committee should consider, while being flexible in how these strategies are applied in specific circumstances.

The first dimension is reducing impacts. What we mean by that is reducing the surface impact of our activity, applying adaptive management techniques, and then monitoring impacts and responding accordingly.

The second dimension is reclamation and restoration. It is imperative that consideration be given to temporal approaches. What we mean by that is allowing land use in the near term with a view to establishing conservation areas over time. Ongoing improvements in reclamation and restoration would allow lands that have been disturbed to be returned to a state that supports both conservation and biodiversity objectives.

The third dimension of the conservation strategy relates to protected areas. We recognize that in some cases it may be necessary to set aside high-value areas and preclude or severely limit use to achieve conservation and biodiversity objectives. However, I think those decisions need to be taken with a full understanding of the opportunity cost of precluding activity.

We would also add that in addition to the above dimensions, the NCF should enable industry to make informed decisions about where and how to contribute to national conservation priorities. Where appropriate, they could make voluntary conservation investments, potentially through public-private partnerships or in partnership with conservation organizations that align with their own corporate stewardship programs. You will hear more about that from our member representatives.

There are a number of what we would see as key foundational elements for an effective national conservation framework. Many of these are informed by what is in place and is working today. We would say that a conservation framework must be structured to enable the best-placed regulatory or government authority to lead the development and delivery of conservation initiatives. It should be characterized by effective and inclusive decision-making processes. Sound science should inform policy and regulatory decisions pertaining to conservation and biodiversity. But science alone should not be determinative.

A conservation framework must allow for flexibility and balance in establishing conservation objectives and strategies. A conservation framework must establish a comprehensive monitoring, evaluation, and reporting system to track performance and to inform adaptive management strategies.

Finally, a conservation framework must enable collaboration among industry and non-governmental organizations that are committed to addressing conservation objectives in innovative ways.

As noted, there is a lot of good conservation work under way today. The system is by no means broken, but collectively we believe that it can do better. In considering an NCF, we suggest that the committee focus on opportunities for improvement in conservation and biodiversity outcomes that address the following areas.

First is collaboration. Enhance engagement and collaboration in both policy development and implementation among diverse interests that have a stake in conservation and biodiversity.

● (0910)

On technology and innovation, the advancement of innovative conservation and biodiversity tools and approaches can be accelerated through improved industry collaboration and information sharing—the recently formed Canada's Oil Sands Innovation Alliance, or COSIA, is an example of that—along with more effective interfaces among industry, government, academia, research, and other institutions.

On alignment, a more consistent approach will drive progress and encourage shared responsibility and ownership among diverse stakeholders.

On integration, conservation is not a policy island unto itself, but rather the conservation framework must be integrated into broader environmental policy and regulation.

On adequate resourcing, NCF will require long-term, durable funding and resourcing commitments.

Finally, on education, as it applies to many other areas of the energy and environment arena, there is a need for improved public understanding of conservation and biodiversity, and of how these fit into the broader policy and regulatory framework for responsible development of natural resources in Canada.

Mr. Chairman and committee, that provides a broad overview of our industry's perspective on the national conservation framework, as we would prefer it to be referred to. I'm now going to turn over the discussion to our member representatives, who will provide some examples of how they approach this matter within their own companies. They will provide some examples of the application of conservation and biodiversity initiatives.

Murray Elliott of Shell will start.

● (0915)

The Chair: Thank you.

Mr. Elliott, you have ten minutes.

Mr. Murray Elliott (Vice-President, Health, Safety, Environment and Sustainable Development, Shell Canada Limited): Thank you.

My name is Murray Elliott. I'm the vice-president for health, safety, environment and sustainable development in Shell's heavy-oil business. Thanks for the opportunity to speak on behalf of Shell Canada and contribute to the House of Commons Standing Committee on Environment and Sustainable Development's study on a national conservation plan.

First, I'd like to note that Shell Canada shares CAPP's view that a national conservation framework would best inform future conservation discussions within the context of a balanced policy and regulatory reform in which environmental performance is addressed alongside economic growth and energy security.

Shell is of the view that flexible conservation strategies, rather than prescriptive plans, are the preferred means to mobilize industry to continue developing innovative and effective conservation strategies, such as reducing impacts, reclaiming lands, and setting aside lands with particular ecological value. We recognize that land conservation and biodiversity protection should be an integral part of all development.

Shell's business principles include commitments to contribute to sustainable development. This requires us to balance short- and long-term interests, and to integrate economic, environmental, and social considerations into business decision-making.

We aim to deliver benefits and reduce our impact through the choices we make about which projects to invest in by making more energy-efficient products and by reducing the impact of our operations.

I would like to provide a brief description of some of Shell's activities to illustrate how companies in the oil and gas sector contribute to conservation.

First, our seismic surveys used to explore for oil and gas are designed to minimize surface disturbance. Today two- to three-metre-wide seismic lines are cut with mulchers to avoid damage to near surface layers of soil. In the past these lines would have been cut by bulldozers in an eight-metre-wide swath. Meandering lines have replaced straight-cut lines to reduce predator impact and to preserve the forest canopy. The recording phase often uses heli-assisted techniques to minimize the need for vehicular access.

Many of the impacts of oil and gas development are temporary. In Shell's in situ oil sands business, two cycles of wells have been drilled, produced, and abandoned. Much of this land has been reclaimed. In the 1970s wells were drilled from individual, well-spaced pads, and all subsequent drilling has been based from multi-well pads to reduce surface footprint impacts.

Shell Canada has a long history of promoting land and marine conservation. Shell has been a partner with the Nature Conservancy of Canada for more than 28 years.

In 1992 Shell donated 8,900 hectares, or 22,000 acres, of land to establish the Mount Broadwood Heritage Conservation Area in British Columbia.

In 1997 Shell Canada was one of four oil and gas companies to relinquish mineral rights to 130,000 hectares, or 320,000 acres, off the west coast of Canada. This was the first step in establishing the Gwaii Haanas National Marine Conservation Area Reserve.

Shell's heavy-oil business has a land and reclamation strategy in place. Given that oil sands reclamation takes decades to complete, purchasing land elsewhere in the boreal zone of Alberta allows us to take action in the short term.

One of our long-term aspirational goals is to achieve a net neutral disturbance by offsetting our active footprint through reclaiming or conserving lands.

Since 2007 we've acquired more than 500 hectares, or 1,200 acres, of land in the southern boreal zone of Alberta in association with the Alberta Conservation Association.

Earlier this year Shell Canada announced the purchase of Shell True North Forest, an additional 740-hectare, or 1,800-acre, tract of land in northern Alberta to conserve boreal forest habitat. The lands were secured through another arrangement with the Alberta Conservation Association.

Thank you.

● (0920)

The Chair: Thank you, Mr. Elliott.

Next we will hear from Suncor. You have ten minutes.

Mr. Gordon Lambert (Vice-President, Sustainable Development, Suncor Energy Inc.): Thank you, Mr. Chair.

My name is Gordon Lambert, and I'm vice-president of sustainable development for Suncor Energy.

We very much welcome the opportunity to contribute to the House of Commons Standing Committee on Environment and Sustainable Development's study on a national conservation plan.

To introduce Suncor for you, we've been developing the oil sands since 1967. We're currently Canada's largest integrated energy company operating in all provinces. We have refining and marketing under the Petro-Canada brand, the oil sands business, and we're very active in renewable energy—wind and biofuels.

Suncor is committed to being a good steward of the land through responsible resource development. We have public goals on land reclamation, water use, air emissions, and energy efficiency. Energy development does disturb land; there's no way around that. However, the land is not lost forever.

Suncor has adopted the triad approach to address our impacts on the land. This triad approach—think of it as a three-legged stool—consists of extensive land uses where we can apply best practices to minimize land disturbance. In-situ oil sands development falls into that category. Second is intensive land uses—mining would be an example—where the impact of the activity is very extensive. Third is protected and conserved lands.

Mining operations are considered intensive, while in-situ is considered extensive. Suncor has supported the integrated land management work, and has supported a research chair in that area over many years.

We also worked to identify conservation areas and ecological priorities, and the use of best practices to minimize land impacts. Our approach generally is simple to describe. We minimize or avoid disturbance wherever possible, as this makes good ecological and economic sense. When there is a disturbance, we use a combination of voluntary and regulatory reclamation measures to address the disturbance at a landscape level. I will mention some voluntary examples in a moment.

We are committed to reclaiming the land that we disturb and accelerating the pace of reclamation. We also undertake conservation of lands in regions where we operate working with stakeholders.

I will give you some examples of best practices. There are tremendous steps being taken. One of those is the reclamation of the first tailings pond that was built as part of oil sands development. It's now known as Wapisiw Lookout. It's the first pond closure. We're working very hard to reduce our land footprint. This is a great example of the temporal nature of reclamation of disturbed lands. That original tailings pond was built some 45 years ago, and it's now being returned to a natural state.

We also have developed and are deploying a new technology to de-water tailings, which will accelerate future pond closures to reduce our footprint on the landscape even further. This technology will allow us to cancel four planned tailings ponds. It's a great example of technology being used to minimize future disturbances. As we speak, we're in the midst of a $1.2 billion capital project to deploy that technology on a large scale.

We have also shared this technology with our industry peers. Canada's Oil Sands Innovation Alliance, recently announced, will be the vehicle for progressing on our technology that we've shared with others and for Suncor to take advantage of technologies developed by our peers.

The oil sands leadership initiative, I would highlight, has also developed a comprehensive land disturbance map of the oil sands region, documenting everything from walking and all-terrain vehicle trails to seismic lines and pipeline corridors. This past winter, the OSLI member companies revegetated the Algar region, located southwest of Fort McMurray. The treatments included winter planting and mounding of 65 linear kilometres of historic seismic lines to reduce forest fragmentation in a caribou zone.

We're proud to mention that this area is entirely off-lease from OSLI member companies' operations, and more land restoration and conservation is planned. That is, instead of member companies focusing only on our own land leases, we are looking regionally across the oil sands resource to see where it makes most sense to plant trees, initiate caribou protection programs, or carve out conservation areas.

Suncor is also a partner in a project aimed at restoring the woodland caribou herd in the west-central Alberta area of Little Smoky. Together with Conoco, we've invested $1 million in habitat restoration work in that region.

I'd like to touch on conservation for a moment. We're a strong supporter; as my Shell colleague pointed out, a number of companies participate with conservation groups that provide strong ecological and conservation solutions. Suncor and Petro-Canada supported the Nature Conservancy of Canada to advance the conservation science and explore opportunities for land conservation initiatives in the western boreal plains.

Another example is that over a nine-year partnership with the Alberta Conservation Association, through the Suncor Energy Foundation we have conserved approximately 5,000 acres in the boreal forest of northern Alberta with the goal of reducing forest fragmentation. This partnership has served as a model for other companies who are also now engaging with the Alberta Conservation Association.

Suncor has also signed a memorandum of understanding with Ducks Unlimited Canada to coordinate research into watershed function and raise awareness of the importance of wetlands. A specific example includes consultation on pipeline routings through and around wetlands. We have worked with Ducks Unlimited Canada to plan and create a pilot fen in Fort McMurray. Our work has shown that fens can be developed in decades, not centuries, as had previously been assumed.

Suncor is also a supporter of the Boreal Leadership Council, which is endeavouring to conserve 50% of the boreal forest on a national basis across Canada. It's a terrific example of a national partnership involving a vision that's been developed with 20 first nations, environmental groups, and resource companies. We also are doing work on caribou and the Mackenzie River Basin.

On biodiversity, we consult with other companies about how to minimize local impacts. That includes forest and other oil companies. This is known as integrated landscape management, and it includes sharing access roads or using land already disturbed by previous development.

Thank you.

● (0925)

The Chair: Thank you very much.

Next we will hear from Encana Corporation. You have ten minutes.

Mr. Richard Dunn (Vice-President, Canadian Division, Regulatory and Government Relations, Encana Corporation): Thank you.

Good morning. I'm Richard Dunn, the vice-president of government relations for Encana.

Encana is a leading North American energy producer, with Canadian unconventional natural gas operations in northeast B.C. and Alberta.

At Encana we take our responsibility as a steward of the land very seriously. We believe conservation and development can proceed together, and certainly we believe it is not a matter of one or the other. It's about finding that balance.

In Alberta and British Columbia, strong regulations set out by our provincial regulators provide effective and efficient operating frameworks that enable both environmental protection and resource development.

Mandated by a culture of continuous improvement, we meet and in many cases exceed the regulations by working collaboratively with other operators, governments, first nations, and communities to minimize our environmental footprint.

Our development in the Horn River basin, located in the far reaches of northeast British Columbia, is illustrative of the success of this approach through the use of new technology and innovative methods, such as pad drilling, saline water sourcing, and participating in the development of boreal caribou management plans, all of which I'll touch upon in the next few minutes.

The Horn River basin is an important development for the Canadian natural gas industry. This shale gas play has been estimated by the National Energy Board to hold some 78 trillion cubic feet of marketable natural gas. In context, that's enough gas to meet the energy needs of the city of Calgary for some 500 years. So it's a huge amount.

The Horn River basin is in a very remote area. It's a long way from market and as it's at the very early stages of the play it has very little infrastructure, all of which requires us to innovate and look for solutions not only to reduce costs but at the same time minimize our environmental impact as we proceed with development.

A key feature of that innovation is pad drilling. Pad drilling operations in the Horn River involve drilling multiple horizontal wells from a single surface location. This technique enables us to disturb far less surface area while maximizing our resource extraction. One 250-by-250-metre-square multi-well pad produces some 15 square kilometres of resource, essentially replacing several hundred vertical wells and well sites, along with their associated roads and pipelines. The result is enhanced environmental performance through minimized land disturbance.

Working together, and with the support of government, producers in the area have created the Horn River Basin Producers Group. This initiative is comprised of 11 companies active in the basin and is dedicated to efficient development planning and also open communication with stakeholders. Regular dialogue with the Fort Nelson community and the Fort Nelson First Nation has enhanced communication, and in doing so allowed the shaping of the development in the area. Additionally, it has generated initiatives that maximize the benefit of natural gas development to local stakeholders, principally in the form of local employment and job skills creation opportunities.

The Horn River Basin Producers Group has developed an integrated approach to minimizing surface disturbance by using effective planning measures, such as the joint development of roads, pipelines, and processing facilities to reduce the collective environmental footprint. In the Horn River basin, as in other shale gas plays, the shale gas development is a water-intensive process, there's no doubt about it. In 2009 the Horn River Basin Producers Group worked with the B.C. government to examine non-potable water supply alternatives for our operations. This was accomplished through Geoscience B.C., a government-supported research organization that launched a number of projects to identify and map subsurface aquifers in the basin.

The Debolt source water plant, a joint project of Encana and our partner in the area, Apache, is an innovative result of this research. The Debolt plant has been in operation since June 2010 and supplies some 98% of the water needed for both companies' hydraulic fracturing operations in the Two Island Lake area. The plant produces water from the Debolt formation, a geologic formation some 800 metres deep. This is a non-potable aquifer, holding saline water that is unfit for human, agricultural, or animal consumption. The salinity of the water produced is so high it's effectively the same as seawater.

The availability of the Debolt water has allowed us to by and large eliminate the use of fresh water in our hydraulic fracturing operations in that Two Island Lake area. We're quite proud of that. This results in significant conservation of fresh water and preservation of the surrounding aquatic surface habitat.

Turning to an example of land use, the industry continues to take measures to protect sensitive species.

● (0930)

In 2010 the industry partners worked with the B.C. Oil and Gas Commission and the B.C. Ministry of Environment to develop the B. C. implementation plan for the management of boreal caribou. The detailed local knowledge and on-the-ground understanding of B.C.'s specific issues were essential to achieving the desired outcome. That outcome was the development of a flexible strategy that provides for caribou protection while enabling much-needed, responsible resource development.

In addition to promoting the use of pad drilling, as mentioned, the implementation plan manages access for development during the critical calving period. It also includes such items as meandering seismic lines, which Murray touched upon. Those meandering lines limit the line of sight between predators and prey and afford the caribou protection.

Furthermore, industry has committed to provide $2 million per year in annual funding for caribou research that guides, informs, and really underpins the implementation plan.

I've spoken to how conservation is applied while development is occurring. However, as mentioned, production occurs for a finite period of time. I would like to address some of the steps we've taken to reclaim areas no longer in production.

In 2011 Encana received reclamation approval certificates from the regulator for almost 360 acres of land that had been returned to the environment. That was our highest amount to date. Additionally, we have some 4,800 acres of land under active reclamation in Canada. We have worked with local stakeholders, first nations, and governments to ensure that the land is returned to its original state and in certain cases is enhanced. That is the case with the recent project we undertook as part of our ongoing support of the Foothills Research Institute. For example, in 2011 we took an abandoned well site from the 1990s and converted it into a wetland to provide habitat for a diverse range of species. Since the reclamation has occurred, we've seen grizzly bears, moose, and birds moving into the area.

In closing, I would like to reiterate that it is our opinion that conservation and environmentally responsible development can and should proceed together. Strong regulations ensure that environmental concerns are a priority and are sensibly balanced with development activities.

The examples I've provided from our operations in the Horn River basin of northeast B.C. highlight the importance of technology, effective planning, and collaboration among governments, communities, first nations, and industry partners in enabling the economic sustainability of our industry in an environmentally responsible manner.

Thank you very much.

● (0935)

The Chair: Thank you.

Mr. Collyer, did you want to close before we go to Ms. Kenny? Is that my understanding?

Mr. David Collyer: I just have a few brief wrap-up comments, Mr. Chair, if that's okay.

The Chair: That's great. Proceed.

Mr. David Collyer: I will be very brief.

I hope that our presentations have conveyed a couple of key themes. The first is that CAPP and its members are supportive of efforts to develop a broad vision for conservation in Canada through what we would characterize as a national conservation framework. This should build on and enable what we believe to be a lot of very good work that's already under way in our industry with respect to conservation.

The NCF should be grounded, we believe, in the same principles that apply to broader environmental, social, and economic policy and regulation. As I said earlier, we encourage the committee to take a broader view of the scope of conservation initiatives. Just to summarize, those would be reducing impacts in the first instance; focusing on reclamation, restoration, and protected areas where it's appropriate to do so; and encouraging innovation and excellence in land use approaches in the application of a diversity of conservation tools.

We also strongly encourage the committee to develop recommendations on the NCF that build on current initiatives and that focus on specific opportunities for improvement in our collective approach to conservation and biodiversity in Canada, all within a broader policy and regulatory construct that enables the responsible development of Canada's oil and gas resources.

Thank you very much on behalf of our collective panel. We look forward to your questions.

The Chair: Good. Thank you so much, Mr. Collyer.

Finally, we'll hear from Ms. Kenny, from the Canadian Energy Pipeline Association.

Dr. Brenda Kenny (President and Chief Executive Officer, Canadian Energy Pipeline Association): Thank you.

I think you'll find our comments to be fairly consistent with what you've heard from the upstream. Just to set the tone, what's different for our industry is that this is about long, linear infrastructure.

I represent the Canadian Energy Pipeline Association. We're very pleased to be here today. Thank you for your time in hearing these views.

Our members represent the companies that move virtually all the oil and natural gas that's produced and used throughout Canada and North America every day. We currently operate over 100,000 kilometres of transmission pipeline companies. These pipelines are energy highways, if you will, really the only feasible and the safest means to transport large volumes of oil, natural gas, and refined products. Our member companies are job creators in themselves. We're currently on the cusp of investing over $20 billion in nationally significant projects, but these job creators themselves are also enablers of the functioning of an appropriate energy system in Canada and enablers of trade over a very long time. So when we look at conservation we're thinking about how to construct an appropriate pipeline that might be needed, but also keeping in mind that these are very long-lived assets. They're not moving around. They're typically there for many decades.

We believe that the national conservation plan or framework is a very positive and progressive step forward. It helps to integrate and modernize Canada's overall framework for environmental legislation to meet the goals of sustainable development in the 21st century. We support the work of the committee in advancing this initiative through some very clear and practical recommendations, eventually to the Minister of the Environment, on how best to move forward with the development of this approach.

We would note that Canada's legislative framework related to energy, environmental assessment, and environmental protection is multifaceted and very complex. Many different acts are involved, some recently promulgated and some that have been in effect for many years. The passage of each piece of legislation reflected the needs of the governments and people of Canada to address specific issues and concerns at that time. Unfortunately, in the past the mindset tended toward prohibiting or regulating certain activities against harm.

I'll come back to that, because we believe that part of the challenge we face in appropriate conservation strategies and in the work under way to look at legislative change is a result of years of effort of trying to knit these processes together. Regardless, there's a real mismatch of legal requirements, and often that's resulted in only a modest improvement in results and a need for some fundamental change. So we support the efforts under way to change legislation with regard to regulation. We believe that the national conservation plan or framework is a great opportunity to change the focus, to complement this change further, by changing the focus from a prohibition of activities to creating better environmental outcomes than are possible today, in part with agreed principles and objectives. While we see various pieces of legislation contributing and mutually reinforcing, this updated framework is important.

How could this work? We think it is time to look at environmental protection as only one component of environmental conservation. The word “protection” brings the context of stopping harm—and clearly environmental protection is necessary in some circumstances. But the word “conservation” really connotes a broader set of actions that promotes desirable outcomes and includes protection.

We believe that conservation should be the business of project proponents, regulators, and citizens alike, and that legislation should enable and support that engagement and productive outcome. A project that is found to be in the public interest could proceed along with an agreed set of conservation objectives that reflect current policies. The attainment of specific permits for activities such as water crossings that have been proven over time to be relatively benign or fully mitigated could be looked at in new and better ways.

Let's be specific. A large pipeline project today costs billions of dollars. Environmental studies, consultant and legal fees, and costs to develop extensive applications to support environmental assessment and regulatory permitting are all part of those costs. We don't begrudge that, but we would observe that currently the estimated costs spent on these permitting activities by our proponents are anywhere from 3% to 5% of the capital cost of each large project. For a billion-dollar project, that amounts to between $30 million and $50 million.

● (0940)

Dr. Brenda Kenny: In complementing the legislative changes that are proposed in the budget implementation act and looking to this conservation plan, imagine an outcome where we could redirect some of those funds away from details permitting and look at positive environmental results, in effect creating an environmental legacy for the project. It would have a direct link to the pipeline under consideration but contribute to environmental objectives in the area through which that project passes. CEPA believes that this is an important conversation to have. It could change the relationship away from an adversarial confrontation to one of mutual objectives.

We must make this point clearly and directly. In this conservation-focused scenario pipeline companies would continue to build and operate pipelines in an environmentally sound way, using standards and mitigation measures that have been proven in the past and continually improved. We would continue to assess and deploy new technologies to advance both safety and environmental performance.

At the same time, the primary regulator, in our case the National Energy Board, for large national projects would have and continue to build a sound understanding of best management practices. So the conservation focus would rely on those practices and really focus on outcomes and results on the ground.

In essence, then, we have to recognize that any development, even the construction of a hospital or a school, will have some environmental impact. The approach we have described here is based on the concept of conservation offsets as one vehicle just to enable the possibility that in a broader scheme where you have construction, rehabilitation, and protection of ecosystems you would at the same time recognize that there are sometimes unavoidable residual impacts that can be addressed on a broader scale. There are many studies and examples of this, and we believe that it complements very well what's under way.

One specific example I would point to is a project that was completed just a few years ago. The Kinder Morgan Canada pipeline was expanded through Jasper National Park and Mount Robson Provincial Park. To achieve this the company did extensive multi-stakeholder engagement in advance of final design and realized that we needed to take a net benefits approach. The Trans Mountain Legacy Fund was put in place, which recognized that the major challenges in that region were not in fact about the pipeline at all, but were about ecological connectivity between railways and roads, etc. So a legacy fund was put together to allow that to be established because the pipeline project took the broader view.

I'll just quickly run through a couple of other observations.

So what is the purpose? Clearly the purpose would be to define clear principles, goals, and priorities at a national scale that could be adapted and adopted at the provincial, territorial, and local levels. It should enable effective integration of rules and goals.

The goal itself should be one of sustainable development. This integration is key, so that you have goals of protecting species at risk as well as enabling watershed protection. You need a path to bring these forward, and this plan can do that.

The guiding principles are really all about this linkage and focusing on outcomes and results. For new developments the national conservation plan should be focused on the principle of a conservation agreement, so that project proponents can look ahead and understand their overall fit into that landscape.

Some of the factors would obviously be looking at how to optimize outcomes. These agreements should not be viewed as a penalty for development but should in fact recognize that when development proceeds it needs to be done in the best possible way, and this gives a path to do so.

Let me close by simply saying that this is an important way to move forward. We are very supportive of how to integrate the three pillars of sustainable development, look for potential tangible outcomes, build our economic future, and create jobs and social outcomes for today through responsible development.

Thank you.

● (0945)

The Chair: Thank you, Ms. Kenny.

We will now begin questions from members. I'll introduce the members who are before us today.

Monsieur Pilon and Monsieur Choquette are with the official opposition, the NDP. They are both from Quebec, and I want to welcome them. We also have Mr. Lunney, from the Nanaimo area, and Mr. Toet, from Manitoba, both of whom are with the government, as am I.

We began our tour on Monday of this week on the island. Then we heard from witnesses in Vancouver on Tuesday. Yesterday we had a tour of Olds College and then went to the Kirkwood Ranch. So we've seen a lot already.

My hope is that in the questions and testimony we will consider reclamation. A number of you have made comments on the importance of reclamation. We saw the importance of wetlands being part of that reclamation, so that it's not just returning the sand and the overburden but also including wetlands as part of that equation, so that the ground waters, when they are recharging, are clean and are receiving clean water.

Anyway, thank you so much.

We'll begin with Mr. Lunney, for seven minutes.

● (0950)

Mr. James Lunney (Nanaimo—Alberni, CPC): Thank you, Mr. Chair.

Welcome to all of our witnesses today, and thank you for very interesting presentations. There was a lot of material in there and food for thought.

I want to begin with something Mr. Collyer brought up. It's probably the first time it's been presented to us this way.

You made a distinction between the national conservation plan and a framework. Some people will have difficulty grasping the difference at first blush. I notice later in your presentation you make a comment that the national conservation framework should "strive to integrate conservation and biodiversity considerations into a broader planning framework". So we have planning and framework mixed together, and the distinction is sometimes lost on some people.

I notice, Ms. Kenny, as well that in your remarks you used the word "framework". You said that a national conservation plan "should create a framework within which all...".

I just wonder if you care to comment and expand a little bit on what you see as the difference between a national conservation framework and a national conservation plan.

Mr. David Collyer: I'm happy to start. Thanks for the question.

I made the comment that there's more than a semantic difference, and I believe there is. I guess I'll start with the view that conservation is a multi-faceted activity with many different stakeholders and many different governments involved in the process. Obviously provincial governments have responsibility for land-use planning. The federal government has a role in conservation. The aboriginal community has a role in conservation. Certainly industry and many other stakeholders do.

Our view is that with so much complexity and diversity, it does not lend itself well to a plan. What we really should be striving for is a common set of principles or objectives on alignment across those diverse interests to create momentum and consistency and alignment in the approach we take to conservation, both within the regular policy and regulatory context and in the actions we take.

For that reason, we believe that characterizing this initiative as a framework rather than what we would view as a more prescriptive plan—which I think is actually very difficult to achieve and implement across those diverse interests—might be a better way to think about it. What we're really trying to do, I think, is to create a vision as to what we want conservation to achieve in Canada, and then let it be implemented and let the planning piece of it, if you will, be undertaken by the diversity of players who are involved.

I don't know whether that helps to clarify the difference, but I think of it more as a framework or a broad strategy, and then we should let the implementation roll out through all of the various players who will be involved.

Mr. James Lunney: Ms. Kenny, would you agree with that perception?

Dr. Brenda Kenny: I do agree with that. I think I would just observe that the word "plan" does often lead to a very prescriptive outcome.

If a conservation plan is used to say that you plan to protect Canada's boreal forest broadly, that's fine, but then to Dave's point, you need a very flexible framework with sub-plans within that. It is really important to get the language right. If this committee were able to deliver on the structure of a broad framework that enables regional response, I think that would be important.

One final thing I would add very briefly is that any outcome of this for Canada's future must be adaptive. As you've heard from this panel, there will continue to be great practices learned about and advanced. We'll monitor them, I hope—government capacity to monitor is important to industry requirements—and that will continue to give us insight into how we need to further improve and adapt.

The framework, to me, provides clear objectives, but with the flexibility to get better over time.

● (0955)

Mr. James Lunney: I appreciate the distinction, but I think the government leans towards plan. And I think Monsieur Pilon is nodding in agreement over there.

The government leans towards economic action plans—phase two and so on of the economic action plan. The distinction actually is quite an interesting one, because the complexity of the terrain in Canada, the ecological variety across the nation, is very different from region to region. I appreciate your underscoring that difference to us.

Ms. Kenny, how long have we been building pipelines in Canada?

Dr. Brenda Kenny: It's over sixty years on the big transmission pipelines and a hundred years on more local systems.

Mr. James Lunney: I know Kinder Morgan had some discussion about that.

The pipeline comes through Burnaby on its way to the port in Vancouver. It's been there for about sixty years, and now they're talking about doubling the impact. Actually most people in Burnaby were not even aware of the pipeline being there until concerns were raised recently. There weren't a lot of concerns until recently, with the talk of doubling the pipeline.

Dr. Brenda Kenny: I want to clarify that it would be doubling the throughput, not doubling the impact. There's a right of way. There's space in that right of way to add additional pipe capacity, and that is what is being proposed at this point in time.

Mr. James Lunney: Exactly. I appreciate your making that distinction.

You drew attention to a pipeline extension in 2007 and 2008 through Jasper National Park. I think we can agree that Canadians would value that as a highly sensitive and high-value area. There is a connection with Mount Robson Provincial Park, and you actually created a legacy fund to improve the function of those parks. Could you take a moment to describe that to us?

Dr. Brenda Kenny: That's a good illustration of an absolutely iconic landscape that any well-meaning citizen would take great pride in and great care with. From a pipeline point of view, it is private investment, but there is a duty to move energy to where it's needed, and that implies crossing landscapes that are vast and varied. The example of Jasper was an existing pipeline right of way that had been there for sixty years and needed to be enlarged to meet further needs.

The company, Kinder Morgan Canada, had extensive consultation in advance of putting forward an application. One of the outcomes was to recognize the question of the biggest challenge ecologically in that region, and that was the mobility of large mammals. You may have heard, from a conservation point of view, about Y2Y: the objective of having a connectivity all the way from Yellowstone to the Yukon for large mammal breeding. That was something the pipeline company put forward, and the outcome of that was a pipeline hearing that lasted only a day and a half.

Mr. James Lunney: What—

The Chair: Your time has expired.

Monsieur Choquette, you have seven minutes.

[*Translation*]

Mr. François Choquette (Drummond, NDP): Thank you very much, Mr. Chair.

I want to thank all our witnesses for being here today. I am going start with Mr. Dunn.

You talked about shale gas companies, among others. I had the privilege of meeting with a representative from British Columbia. He was somewhat concerned about a coal bed methane project under way in the northern part of the province.

I am pretty familiar with shale gas, given the big dilemma it presents. My riding of Drummond is home to a lot of shale gas; it's incredibly plentiful. But the residents are very concerned. There are 16 shale gas watch committees made up of citizens. Several hundred people are joining forces to find out what is going on. They are extremely worried because the water being used for the project is well water, groundwater.

There are two systems: the shale gas, which is roughly one, two or sometimes three kilometres deep; and the coal bed methane, which is less than a kilometre deep. Is there any scientific research to confirm that, under a national conservation plan, both of these systems are safe, or should we avoid one of the two?

● (1000)

[*English*]

Mr. Richard Dunn: I appreciate the question. You bring up a good point in terms of doing the work responsibly.

My opinion is that, yes, both resources can be developed in a responsible manner. Again, there are effective regulations that we operate under that ensure that the work is done responsibly.

One example of those regulations is with regard to shale gas. There are a number of concerns that stakeholders generally would bring forward, and they're very valid concerns, that both the industry and regulators have been addressing in this past year.

To give you a few examples, first off, you've heard a lot, as you mentioned, with respect to disclosure of the chemicals that are used in hydraulic fracturing. The industry as well as the provinces have moved, both in British Columbia and in Alberta, and the industry across Canada has moved, to a commitment to disclosure of those chemicals that are utilized in the hydraulic fracturing process.

Secondly, in terms of the protection of the quality and quantity of fresh groundwater, industry made a number of commitments through the Canadian Association of Petroleum Producers earlier this year in terms of the practices around well-bore integrity, protecting the shale operations, and physically separating them, with solid well-bore integrity, from any kind of potential contamination of groundwater... and as well, in terms of the sourcing of water for the use in hydraulic fracturing operations, made the commitment to look for alternative sources, one of which I mentioned in my talk in terms of looking for the Debolt saline water as an alternative to the use of fresh water.

So between the commitments that industry is making and the regulations we operate under, yes, it can definitely be done, and I think that has to get through to the stakeholders in the area.

[*Translation*]

Mr. François Choquette: I want to stay on this topic, as the issue is of the utmost concern to my constituents. A crucial part of a national conservation plan is to make sure water is properly protected. As everyone knows, water is the future.

As you may know, the Canadian Environmental Assessment Act has been amended. Regulations are going to be put in place. We're going from trigger-based assessments to an approach based on a list of projects. Do you think shale gas should be on the list of projects that are subject to a federal environmental assessment?

[*English*]

Mr. Richard Dunn: Yes, we're used to regulations that address where water is used and the amount. For example, in British Columbia the Ministry of Environment, in their environmental assessment office, has thresholds of water extraction projects that are subject to environmental assessments.

For example, the Debolt project that I mentioned, which provides our source water for hydraulic fracturing in Horn River, was subject to the B.C. environmental assessment process.

[*Translation*]

Mr. François Choquette: I want to ask another question on the same topic. I know that, in British Columbia, you have some fine plans to use saline water, for instance. For the time being, though, the contaminated water is mostly concentrated in wells, which we all hope are well insulated to prevent the polluted water from leaking out.

Do you have any plans to reuse the water rather than bury it in other wells? I think the ideal solution would be to reuse the same water. That would be more efficient than losing water, even if it is saline water.

[*English*]

Mr. Richard Dunn: Definitely looking for alternatives is one of the strategies, but certainly there's also reuse and recycling, utilizing it in other areas to minimize the amount of fresh water we use.

Shell, for example, has a very innovative project where they utilize waste water from the city of Dawson Creek as some of their source water for their hydraulic fracturing operations.

So absolutely we are looking for alternative means to the use of fresh water.

You mentioned the disposal. I will just mention very quickly that there are very strict regulations that govern the integrity of disposal wells in Canada. In fact, in Alberta and British Columbia there is no surface disposal of produced water; it's only allowed underground, under strict regulations.

● (1005)

The Chair: Thank you very much.

Next we'll hear from Mr. Toet. You have seven minutes.

Mr. Lawrence Toet (Elmwood—Transcona, CPC): Thank you, Mr. Chair.

Thank you to our guests who are with us today. I very much appreciate the input you've given us.

I'm going to start with a question for Ms. Kenny. In your presentation you made a statement that I found quite intriguing. You said that we could create better environmental outcomes than are possible today because of regulatory issues. I'm hoping you can quickly expand on that. I don't want to spend a lot of time on it, but I found it quite intriguing.

Dr. Brenda Kenny: I'll use a specific example of past and future. Some of these changes are being addressed through the current budget implementation act.

A large pipeline project—we'll say it's travelling over 1,000 kilometres—might cross over a hundred streams. In the old world you would get worried about each and every stream, as you should in terms of mitigation. But the permitting down at that granular level leaves you with a very incremental view of what's going on. Instead of saying we are going to use best practices and there are standard operating approaches and those should all be applied, let's plan ahead and say that If there were eight of those streams that, during construction, might be impacted, instead of eight little offset projects, why not think about a legacy project that is equal to ten of those? Then you're talking about some significant fish habitat improvements or wetland improvements, etc.

So it's taking a more strategic view than is currently enabled in the legislation. This conservation framework gives you that eye to say we should actually be asking those strategic questions during big project planning.

Mr. Lawrence Toet: You would acknowledge, though, that there could be cases in that where there are some unique situations within crossings that should be looked at in a slightly different context.

Dr. Brenda Kenny: Absolutely. And of course when you're actually evaluating the design and the plans, you look at each level. But I am saying that those would be integrated into your plan and addressed on a location-specific venture. But at the same time, you would look strategically at the overall impact of the overall project and ask, how can I do a better job to have—as you heard from some of the other speakers—a net zero impact? That is different from a punitive approach that says that for any damage you deserve a fine. That's not the point. The point is that these projects are for the public interest, and how will you do them best.

Mr. Lawrence Toet: You went further, as you talked about this in your presentation, about the 3% to 5% that it costs for each project going through the process, etc., and that there would be potential savings in that. The implication was that there would be an ability to direct those funds. You used the $1 billion example, so $30 million to $50 million, and you'd talked about the ability to direct those to the larger aspect.

How do we ensure that those funds would actually flow in that direction, and not just be seen as savings, so to speak, and not move to the conservation aspects you had talked about?

Dr. Brenda Kenny: That's a great question. I just tried to put that out as an illustration of the kinds of investments that are made that aren't necessarily resulting in any better environmental improvement. For all of those industry investments, keep in mind as well, there are government bureaucrats chasing paper, as opposed to actually doing environmental protection. So I think it's just rethinking where we direct our energy or focus our capital. If there were a decision that the level of investment was necessary, that's fine.

I think you want to take through the framework an overall view of what we are trying to achieve, how best to do it, and how we get there effectively. More process does not result in better environmental outcomes.

● (1010)

Mr. Lawrence Toet: Right. The outcome is the ultimate goal. I understand and appreciate that 100%, and we want to enhance those outcomes.

I want to be assured by the statements you've made here. You said that you don't have any problem and the industry doesn't have a problem with the costing, and that's fine. You would look at this as not necessarily a savings but as a way to convert more money into creating better environmental outcomes, parallel to the project.

Dr. Brenda Kenny: In your project design, I would say yes. That's what some of these legacy projects are. Certainly some of the examples provided here do cost money. I don't know what the right quantum is.

I would say that before the major projects management office today, for resource projects, is a total of I think close to $200 billion worth of shovel-ready infrastructure. Using our estimate, that means that you're planning to spend $6 billion to $10 billion on process. When I talk to ENGOs and others and say here's a cheque for $5 billion and I ask them how they would like to invest it in environment protection, they don't say to tie it up in processes for years at a time. They say let's get on the ground and figure out what we can do.

Mr. Lawrence Toet: I have a quick question regarding the need for education that was touched on in the Suncor presentation. Also, Mr. Collyer, you touched on it. Suncor's call to action was the need for greater education about biodiversity and what it means to Canadians.

Have you considered what this would be and how it could be accomplished? I agree with you that there is a great need for that education. Where does that start, and who are we aiming at in this education process?

Mr. Gordon Lambert: I think it really starts at all levels of education. At the research level, I touched on the integrated land management research chair at the University of Alberta. At the fundamental level of science and understanding of biodiversity, we still have a real need to develop a better understanding of how to accommodate for biodiversity and understand how ecosystems function in a way that can inform decision-making. In that research realm, we really need to devote resources to move that along.

In terms of other levels of education, it is increasing public awareness of their impacts on the land and how they might mitigate those and think differently about preserving biodiversity.

Mr. David Collyer: I think at the one level, as Gord mentioned, there is a need to educate about conservation and biodiversity. But I would add to that the need for education on the linkage between conservation and a broader framework. The question is the line of sight between resource development impact and conservation objectives and biodiversity objectives and how we integrate those two. They're not two islands unto themselves.

How can we better convey to the public what responsible development means and the fact that any sort of economic activity in oil or gas or other things is going to have some sort of environmental impact? How do we best address that? And how do we relate it back to the economic and other benefits that derive from it? I think that line-of-sight question is an ongoing challenge.

The Chair: Your time has expired.

We're normally starting the five-minute session. I'm going to use my discretion and give Mr. Pilon seven minutes, and then we'll do another round. We're moving quite quickly. Is that okay? Good.

Mr. Pilon, you have seven minutes.

[*Translation*]

Mr. François Pilon (Laval—Les Îles, NDP): Thank you, Mr. Chair.

My first question is for Mr. Collyer and Mr. Elliott.

In your presentations, both of you said the sites needed to be protected and, once the land had been used, restored to their original state. Do you believe the national conservation plan should go as far as halting certain activities if, during the course of the project, we see that it will do irreparable harm?

[*English*]

Mr. David Collyer: I would answer that question at two levels. First, coming back to the point I made just a moment ago, there will be some form of environmental impact from almost any industrial activity. Our job is to try to mitigate those impacts, and as I said earlier, as a matter of principle, to try to land with regulators and governments and other stakeholders on the appropriate balance between environmental protection and economic growth.

I would certainly not suggest that any sort of economic activity or industrial activity, should it have an environmental impact, be stopped. Our job is to try to mitigate those impacts and find the right balance. As I said in my remarks, I think it's important to think about conservation in that broader context. We try to mitigate or reduce impacts in the first instance. You've heard many examples of that, as Murray will comment in a moment.

We try to make sure we restore and reclaim land that is impacted. In some cases there will be high-value areas that legitimately should be protected, and where land activity in one form or another should be minimized and in some cases precluded. I think it's important to look at it in that broader context and to think about all of this under a broad principle, which is that we need to find the appropriate balance between economic activity and environmental performance, and also think about it in a temporal context whereby you can develop and impact the land and still come back to conservation and other objectives over a period of time.

Murray may want to add to that.

Mr. Murray Elliott: Sure. Thank you.

First, I completely agree with Dave's comments about the need to have that balance. There are lots of examples whereby projects or activities are recognized to have a more significant impact over time than what was originally approved or thought of. You're seeing adaptive management approaches and changes to legislation and regulation.

Certainly from a Shell perspective, we're about driving continuous performance improvement in our environmental performance, as we are with the rest of our business. So if we find defects or things we see that are not accessible, it's about driving that performance, looking at ways to mitigate it, and potentially looking for ways to offset it.

I agree that we have to find that larger balance and we have to have those logical decisions about what are acceptable impacts at the very front end of these kinds of large projects. The change in regulation is really about having a national conservation framework that would allow us to achieve those objectives over a broad context.

● (1015)

Mr. David Pryce (Vice-President, Operations, Canadian Association of Petroleum Producers): Just building on what Murray said, one of the things we said in our presentation is that in order for this to be a comprehensive framework, one of the elements needs to include the monitoring and reporting. As we go ahead with a project's development and as we look at the desired outcomes with respect to conservation, we need to be testing whether the plans we put in place are effective enough to apply the mitigation and have the mitigated results.

We are advocating that an effective monitoring program also be there to look at what those results are, and, if we need to, apply further adaptive management strategies.

[*Translation*]

Mr. François Pilon: Thank you.

My next question is for Mr. Lambert.

What do you mean by "reclamation"? I will explain. I'd like to know whether, when you restore sites, any research is done first. You talked about planting trees and closing ponds. We've been around and we've seen that, sometimes, well-intentioned people can restore the land, but if no research is done first and the site is restored any which way, it can have a negative rather than a positive impact.

Do you do any research before you restore a site?

[*English*]

Mr. Gordon Lambert: Certainly reclamation plans are filed at the front end of our projects that document how we're going to commit to restore the landscape after our use of it, but it is adaptive management. To Murray's point, it is learning by doing.

I think over time what you're seeing is that the science of reclamation has advanced tremendously. The techniques of reclamation that are being applied today are very different from ones that would have been done 40 years ago. The effort is to approximate as closely as possible the regional landscape as it existed before. You would see a progression of science of reclamation from those early days to what we do today.

[*Translation*]

Mr. François Pilon: You all talked about conservation and above-ground reclamation, but no one mentioned what you do when a well is closed. What do you have to do to mitigate the underground impact, not just at the surface?

[*English*]

Mr. David Collyer: Could we have David Pryce respond to that?

Mr. David Pryce: Thank you.

For us, the regulatory environment is very clear with respect to the abandonment and reclamation of wells. In essence, what we have to do is go back into the well when we're finished producing it, seal it off, and remove any surface equipment. At that point we go in and do the surface reclamation, which involves restoring the topsoil, doing the grading, if necessary, to put it to the natural grade so that we ensure that the drainage is consistent with the region.

The process for that is monitored by governments. We're required to get a reclamation certificate, which means, in essence, that we get inspected or audited on our work. It usually takes several years for the government to confirm that the work has been done appropriately and successfully. They take their time to make sure that the work is sustainable and is representative of the surrounding landscape.

Does that answer your question?

Mr. François Pilon: Thank you.

The Chair: Mr. Lunney, seven minutes.

Mr. James Lunney: Thank you, Mr. Chair.

Ms. Kenny, you stated in your remarks that CEPA believes that the industry and the National Energy Board, our primary regulator, have a sound understanding of best management practices and their effectiveness.

Opponents of pipelines will say they will leak. Can you explain to us how common the problem is and how industry manages it? Presumably there are valves along the way and you can shut them off. How do you manage disturbance in the pipeline delivery?

● (1020)

Dr. Brenda Kenny: First of all, prevention is the number one thing you address. Canadian companies routinely use internal inspection to keep an eye on what's going on inside the pipeline and through the wall of the seal. It would be similar to your experiences with your doctor in terms of medical opportunities today to keep an eye on things through MRI or CAT scans, as opposed to always having to go in for exploratory surgery if you suspect something.

That has helped place the Canadian transmission pipelines best in class in the world in terms of safety, which is a remarkable achievement, and one we're committed to continually improve.

To further prevent any incidents from becoming a challenge, there are things like valve spacing, 24/7 monitoring, automatic shutdown, emergency response, etc. All those things are well known and well regulated. Again, our commitment is to continuous improvement.

I would stand before you today and say that our absolute unequivocal goal is zero incidents. That is something our full board is behind. We have a number of management system components and best practices we're pursuing around that. Can I say there will never, ever be a pipeline incident in Canada? No, I cannot, any more than any of us getting on an airplane today can say there will never, ever be an airline incident. But can we be best in class and continually improve? Absolutely.

Mr. James Lunney: Thank you for that. I appreciate your putting that on the record.

Mr. Dunn, you were talking about the Debolt source water plant. You mentioned in this instance that you were able to access some 800-metre-deep saline water deposits for the hydraulic fracturing process. Can you comment on how common such deposits might be? Is this a rare phenomenon, or are such water sources relatively abundant?

Mr. Richard Dunn: It's definitely area-specific, but we're certainly investigating. It's not unique in any sense. For example, in the Dawson Creek area there's another large unconventional gas play called Montney. It's a very prolific play. We're currently looking at subsurface aquifers there as well, roughly in the same kind of depth. They are there. Western Canada is a sedimentary basin, and that does afford those saline opportunities.

There's a timing aspect to the whole thing as well. As you go in to prove up your natural gas play, you initially look at the use of fresh water or near-surface waters, but as you start to get more and more confident that there's long-term development there, at the same time you'll start to look for these alternative water sources. One of the areas we look at is the subsurface saline aquifers.

Mr. James Lunney: Thank you for that.

The Chair: Mr. Pryce wanted to comment.

Mr. David Pryce: I have a quick comment. The policy environment in which we operate, particularly in Alberta, requires us to look for alternative sources of water. We look to fresh water first. The saline water isn't always geographically available or chemically appropriate, but the companies have to look at that before they make their decision on what they would apply for in terms of a water licence.

Mr. James Lunney: Thank you for that.

Mr. Lambert gave us a number of examples of partnerships and arrangements Suncor came up with to improve environmental outcomes. One of the projects you mentioned in passing after talking about what's now the Wapisiw Lookout, if I'm pronouncing it right, is the former tailings pond. At the end of that remark you talked about Suncor wasn't able to cancel four planned tailings ponds. You mentioned a $1.2 billion program to employ this technology. Are you talking about a TRO technology? Could you describe what you're talking about, and where this investment is expected to take you?

Mr. Gordon Lambert: Correct. TRO is the acronym for tailings reduction operations technology. The TRO technology is the treatment of the tailings to remove water at an accelerated rate. This will allow us to return dry tailings to the mine, versus having to store them in tailings ponds for long periods of time. It takes a process that would normally take 40 to 50 years to consolidate these tailings down to a very short timeframe. During the summer months we can dewater these tailings in days instead of decades.

It is a major breakthrough. The $1.2 billion I mentioned is the capital that's being invested to deploy that technology at commercial scale. That's occurring as we speak, which is a significant shift in our mining technology and overall approach.

Mr. James Lunney: Thanks for that. We've had tremendous advances in technology in the past decades, and it's great to see those being employed to improve outcomes.

The Chair: Mr. Collyer.

Mr. David Collyer: He's raised an excellent point.

I have a very quick add-in. Gord, I think you mentioned this in your remarks. It's very important also to highlight that this technology is being shared and deployed across a number of different companies. You've heard the recent COSIA announcement around accelerating environmental performance technology and sharing intellectual property across companies.

It's important to talk about it in the context of what Suncor is doing. It's a great piece of work, but I think it's also important to recognize that this technology is being shared and applied more generally.

Mr. James Lunney: Thank you for that. I appreciate that.

The Chair: Thank you, Mr. Lunney. Your time has expired.

Mr. Choquette, you have seven minutes.

[*Translation*]

Mr. François Choquette: Thank you kindly.

I want to pick up on environmental assessments, which I mentioned earlier. The budget calls for changes to the Canadian Environmental Assessment Act. I am extremely worried, but it does not have to do with the national conservation plan we are discussing today. That was just an editorial comment in passing.

The Canadian Environmental Assessment Act underscores the importance of assessing projects properly. We've talked about shale gas and oil projects. I hope the future list will include those major projects.

My question has to do with what you said about the importance of strict regulations in order to have agreement among all the industries. I've heard criticism as far as the cumulative effects go. You do a really good job on a single project, but you don't look at the cumulative effects.

If you are to have a good reputation, if people are to believe that oil companies are worried about more than just production, if they are to see your activities in a positive light, would it not be advisable to make that component part of a strict regulatory regime? While a single oil well might not overly harm the environment, 20,000 wells in the same area could have a tremendous cumulative impact.

● (1025)

[*English*]

Mr. David Collyer: I'd be happy to take a first pass at the response to that.

We've been very clear that we're supportive of the initiatives around regulatory reform. We're also very clear that in no way should this compromise environmental outcomes, and I don't believe that to be the intent at all of the proposed legislation.

We are strong proponents of land use planning as a means by which to address the cumulative effects issue. We're on the record at CAPP as supporting the land use planning process, for example, in northeastern Alberta. We think that's the most effective way to deal with the broad regional issues. Then individual projects can operate within that framework in a more simplified regulatory review process in our view, because the broader issues around planning have been addressed through the land use planning process.

That's where we believe the equivalency approach and other elements of the proposed legislation are the right thing to do. They do bring to bear a simplification of the process, but they also ensure we're continuing to focus on environmental outcomes. Where there's a good process in place at the provincial level—and we would argue that the lower Athabaska regional plan is a good process—that should be implemented effectively and will provide that broader framework within which we can operate.

● (1030)

Dr. Brenda Kenny: I want to add, from a pipeline point of view, that we also believe the budget implementation act suggestions will open the door to a better environmental outcome, in part because the consolidation allows you to look at the whole set of opportunities for improvement in a project plan and to address it in an integrated way, which is the core for sustainable development.

On cumulative effects, which I agree with Mr. Collyer are best addressed by looking at the landscape, and we also are supportive of land use plans, I will go back to the example I shared as one illustration—and there are many on pipelines of the Kinder Morgan project—looking at the regional impact of large mammals. In fact I would say that legacy project reverses cumulative impact by allowing for better wildlife mobility.

Sometimes development can contribute to some of the solutions. These suites of legislation and the framework you're addressing in this committee can work hand in glove to achieve some very good outcomes.

[*Translation*]

Mr. François Choquette: Thank you.

Yesterday, we were at Olds College. I met a number of teachers who were working on the wetland project. We discussed the importance of reclamation. There is currently legislation stipulating that for every acre of wetland that is destroyed, two or three additional acres must be rebuilt. When companies do it, however, there is no follow-up unfortunately. These wetlands don't survive more than two or three years.

One teacher said that it may be worthwhile for companies to consult each other more. For instance, instead of building 10 roads to access the same section, there should be only 1. Instead of building 10 pipelines that go to the same section, why not have just 1 that companies could all use?

The teacher also said that companies should work together more closely. I mentioned the cumulative effects, and the lack of consultation is one such effect. The number of roads is on the rise, as is the scale of the repercussions and infrastructure. I am going to let Mr. Pryce answer my question, but I want to add something first.

To ensure that ecological groups—which have more expertise in this field—carry out land reclamation, the teacher suggested a fund be created. It would be administered by you and the universities, say, and result in more effective and efficient reclamation.

Those are two things I'd like addressed, and the person with the most to say on the matter can have the floor.

● (1035)

[*English*]

The Chair: Mr. Pryce.

Mr. David Pryce: I have maybe a couple of points on that.

Gord touched on the fact that there is a chair at the University of Alberta for integrated land management. That's something that industry has been very supportive of over the years. The key objective of that is to look for ways to have companies, not just within our industry but across the resource-developing industries, work together for that very point you're talking about—looking at common roads, common pipeline systems, common timing of access, those sorts of things. So we're certainly live to that as an important tool, and quite frankly a necessary tool, if we want to get the right to access the land.

I think the other thing that's relevant here is that as we move from the conventional business, where we go and drill a well here, and we go and drill a well there.... Mr. Dunn talked about the shale gas development opportunities and the fact that we look at pad drilling, which means we work 16 wells on a pad to produce a vast area underground. I think that serves to minimize the impact. But as we're looking at that, so are our regulators. The current regulatory infrastructure in Alberta, as an example, is talking to us now about requirements to work together more effectively, just as you're speaking to, so that we do minimize the footprint and take the opportunity to minimize the footprint, working together.

The Chair: The time has expired, and in fact has way expired, but if you can keep your comments short, go ahead.

Mr. David Collyer: I'll just be very quick. I know that Brenda wants to make a comment as well.

I wanted to come back to your last point, about relying on environmental groups and others to do this. We work very closely with academia, research institutions, environmental groups, but I would also highlight the fact that the companies that are appearing here today also have on their staff many environmental specialists. In fact we have far more of those kinds of people than we used to because of the focus on this area.

So there is a lot of expertise in the environmental area within all of the operating companies as well.

Dr. Brenda Kenny: Just very briefly, I was going to say that, I agree, regulatory capacity follow-up, monitoring, and adaptation are all part of the package. In the current BIA there is $14 million more for the National Energy Board to do more inspections, more audits. We welcome that, because transparency in the follow-up is part of this. It's part of the regulatory infrastructure, and it's a shift away from thinking that up-front permitting again is the answer as opposed to a full life-cycle collaboration and ongoing improvement for this conservation agenda.

The Chair: Thank you.

I think every member of our committee in our travel to Olds College was very impressed with the wetland project they have there. My question for them was on how involved the oil sands industry was in reclamation and consulting, which is a growing science. We hope that industry and science work together.

As we heard, the tailings ponds science is changing in a very short period of time. Two years ago, when the committee travelled to the oil sands, that wasn't even considered at the time. Here we are now, two years later, and we've made some major breakthroughs. So wetland development, as part of reclamation projects, needs to be strongly considered.

We have Mr. Toet, for seven minutes.

Mr. Lawrence Toet: Thank you, Mr. Chair.

Through you, Chair, perhaps I could make a request. Ms. Kenny said she'd be pleased to provide the committee with examples of projects that could be considered on a pilot project basis. If she would indeed provide those examples to the chair or to the clerk, that would be greatly appreciated.

Just quickly, I want to try to clearly define what we're working through here in terms of some of the examples and thought processes that have been brought forward.

I believe, Mr. Collyer and Ms. Kenny, you've both talked about the change in perspective in working through the national conservation plan. Tell me if I have this correct—and correct me if I don't—but what you're desiring to see, as we go forward with the plan, is that we clearly define what we want to achieve, what our desired outcome is through the plan, and then within that context have a plan that allows flexibility as technology and innovation come aboard in order to actually achieve those outcomes.

Is that a fair summary of what you've been saying, or would you like to enhance that a little bit?

Dr. Brenda Kenny: I think that's a good summary, because this is really about being results-oriented, as opposed to prescriptive. We need to be clear about the objectives we're trying to achieve and then enable an array of options to get to that end point, and monitor whether we get there, and if not, why not, learn from that, and continue to move the science. So I think that's a good summary.

● (1040)

Mr. David Collyer: If I could add to that, it would be to say very much the same thing Brenda said. I think this is all about trying to define outcomes, creating alignment among the diversity of interests stakeholders have a view on and a role in for conservation and biodiversity, and then allowing innovative practices and plans to be developed across a multitude of jurisdictions and interests to actually achieve that objective, rather than trying to be prescriptive.

As the chair just mentioned a moment ago, we're not smart enough to see out too far in terms of where technology might take us, for example. We want to define an outcome and allow flexibility in terms of how that's actually achieved and enable that alignment and innovation to take place.

Mr. Lawrence Toet: The one thing I'm hearing here then is actually the third aspect, which I maybe never touched on, and that is the need to monitor the progress on those outcomes to make sure we are actually meeting our goals and objectives. That is a very important component of it.

Thank you.

I have a quick question for Mr. Dunn, from Encana. In your presentation you talked about the dialogue and the collaboration you had, and you especially talked about that with regard to the Horn River basin project. I'm just wondering if you could give us a sense of how that worked, also from a conservation aspect, and how the buy-in from stakeholders was, and how you believe that effected a very positive outcome.

Mr. Richard Dunn: Certainly I think all eleven companies were very supportive of the opportunity and recognized the advantages of effective planning. The single road, the single pipe that was mentioned a few minutes ago, or the need for that planning not just to deliver minimized land disturbance but also to enhance the economics of the project by sharing facilities, roads, pipe....

A good example is the Cabin Gas Plant, which we put in as a shared processing facility up there and for which five of the companies collaborated on a multi-hundred-million-dollar gas plant for the processing of the gas.

I think from a stakeholder perspective, the producer group is very well received. It allows an avenue, as I mentioned, to come in and shape the development, to express concerns, and to gain that understanding. So there is that single portal, rather than working with eleven different companies as might be appropriate. Accessing a single avenue to get information and also to provide input into projects is a very efficient way for stakeholders to gain insight as well.

Mr. Lawrence Toet: How did the other stakeholders we talked about—first nations and communities in the area—react to going through that process that way, actually having one conduit, rather than, as you say, having to talk to eleven different parties? Was there a positive reaction from them on that in the final outcome?

Mr. Richard Dunn: There was, very much. I think they're very supportive of the producer group, and I would suggest that's the way they look at doing business with us now.

For example, we have monthly meetings, oftentimes in the area, but oftentimes in Calgary as well, to which representatives of the community and first nations are able to video-conference in and talk to the company representatives who sit in the producer group and gain an understanding of what's going on and express their concerns.

I think it has really become the way we do business up there so that they can see that common planning and the common approach.

Mr. Lawrence Toet: Thank you.

I have one last thing, and whoever wants to react to this can.

One of our witnesses from the Nature Conservancy of Canada made the statement—and I may not have it perfectly word for word here—that industry is just as keen on seeing conservation areas as anybody else is. Would you agree with that statement?

Mr. Gordon Lambert: Yes, absolutely. We want certainty of where we can develop and under what conditions. We also recognize that conservation of important natural areas is an important part of the landscape and the mix. There's always this balancing of our economic, social, and environmental interests, but we know conservation has to be part of the mix. Getting clearer of what that outcome is, and sooner, is absolutely important to us as investors.

● (1045)

Mr. Lawrence Toet: Mr. Collyer.

Mr. David Collyer: The point I would make is that the point of integration or the point of balance differs across different interest groups. I would say the level of alignment we have with groups like the Nature Conservancy is quite good. I would make a similar comment about the Alberta Conservation Alliance. We don't have that same point of commonality or interest, if you will, with all environmental groups, but a number of those would be seen as very reputable, very credible conservation groups in Canada, with whom we're quite well aligned, as Mr. Lambert has suggested.

The Chair: Thank you, Mr. Toet.

Monsieur Pilon.

[*Translation*]

Mr. François Pilon: Thank you, Mr. Chair.

I have three short questions about points that require clarification.

The first question is for you, Ms. Kenny. When you build a pipeline, you have to restore the land to the extent possible. Is there any legislation requiring you to restore a site in the event of a leak or something similar? Is all you have to do fix the pipeline? Are you required to fix environmental damage, if there is any?

[*English*]

Dr. Brenda Kenny: Very extensive regulations and an array of actions are taken if there is a leak. That includes extensive cleanup and repair, so there's assurance that if the pipeline is opened again for operation, it's high integrity and will be safe, and that it is completely restored in the locale where there may have been some damage. That is in place in a range of regulations and requirements, and frankly, it's the right thing to do.

The only other thing I would add is that some people might look at the picture of a leak on day one and think it is horrific and permanent damage. It is something we work extremely hard to avoid, but I can assure you it is not permanent damage. In fact, I'm aware of several instances when the cleanup left the landscape cleaner than it had been. A good example of that is in the port of Vancouver, following an incident when an oil pipeline was struck by a contractor. It was not the company's fault, nor was there any need to be concerned about the safety of the pipeline itself, but that was a very industrial port area, and by the time it had been cleaned up it had been very much improved from the state it was found in at the time.

[*Translation*]

Mr. François Pilon: Thank you.

My next question is for you, Mr. Dunn. You said you were going to use saline water as much as possible. What do you do with it after it becomes contaminated? How do you dispose of it?

[*English*]

Mr. Richard Dunn: That's a good question.

While we hydraulically fracture the well, we produce the water back into a secure containment. That water is then recirculated and pumped back into that same reservoir in a slightly different location, an 800-metre-deep reservoir. So we dispose of the water that comes back from our hydraulic fracturing operation back down into that same-source reservoir. It's a closed-loop system and it's recycled back into that saline aquifer, right back into the source. Again, the integrity of the pipelines and the well bore is engineer-designed, but also well regulated to protect the fresh water.

[*Translation*]

Mr. François Pilon: I have one last question for you, Mr. Dunn.

You work with aboriginal communities. Can you give me a tangible example of that cooperation?

● (1050)

[*English*]

Mr. Richard Dunn: Yes. Again looking at the Fort Nelson First Nation area, where we have the Horn River, certainly as we go forward to do our development, we consult extensively in terms of understanding first nations' concerns. If there are any sensitive areas that we need to avoid, for example, areas that are important to first nations, be they spiritual sites and such, we integrate their traditional knowledge into the development. We will consult, and it will affect our development.

Then, as I mentioned, we work to make sure that both the aboriginal and non-aboriginal communities get to benefit from our activities as much as possible. This might include opportunities from a business perspective, that they understand the contracting opportunities, for example. I know both Shell and Suncor do that extensively as well, to build up that capacity. We will be ensuring they have that understanding.

We also have programs to build that capacity in the aboriginal community. One good example is that we sponsor a program called the Ch'nook business school, out of the University of British Columbia, which starts to build up management capacity for aboriginal businesses. Oftentimes this ability to effectively manage and run a business is one of the critical success factors. That's one example of a program that we sponsor.

The Chair: If there are no additional comments, I want to thank the witnesses for being with us today.

Thank you for your commitment to a sustainable development of our natural resources. Your suggestion that our study be called a national conservation framework, not a plan, will be taken into consideration.

We will suspend until 11:15.

Thank you so much.

● _____ (Pause) _____

●

● (1115)

The Chair I'll call the meeting to order.

This is the 37th meeting of the parliamentary Standing Committee on Environment and Sustainable Development.

I welcome the witnesses who are with us today as we continue our study on the creation of a national conservation plan.

There are 12 members on the committee, and five of us around the table today. We are looking forward to hearing from the witnesses. Each witness has up to 10 minutes, but you don't have to take the full 10 minutes, which will be followed by questions.

I will hand it over to the witnesses, beginning with the Alberta Grazing Leaseholders Association. Mr. Sears, you have 10 minutes.

● (1120)

Mr. Larry Sears (Chairman, Alberta Grazing Leaseholders Association): Good morning, everyone. Thanks for the opportunity to appear before you today.

First, to give you a little background about me, I'm a fourth generation rancher from the foothills of southern Alberta. My boys are the fifth generation pursuing agriculture in Alberta. This is a bit of an unusual situation as we've had a great deal of trouble keeping our youth in agriculture. My family celebrated a hundred years in the province in 2010.

I'd like to tell you a little about my association, the Alberta Grazing Leaseholders. There are roughly 5,700 grazing leases, which is crown lands under agricultural disposition, in Alberta. That's about 5.2 million acres. Alberta's land mass is estimated to be roughly 150 million acres, not including water. This would put the grazing lease acreage at less than 5% of the land base. The beef cattle industry generates roughly $3 billion in farm cash receipts. The success of our industry relies on an efficient and productive cow herd with access to an extensive feed supply. Approximately 20% of the grazing requirements come from the use of crown grazing leases. These crown lands have a designated priority for agriculture, and most are best suited for cattle grazing. The average lease in Alberta is just over a section and supports approximately 50 cows.

I would like to take this time to offer some insights on the benefits of livestock grazing and its role in maintaining and, in fact, conditioning habitat on the range for other wildlife species. Most ungulates and many of the cherished and so-called endangered species, or endangered animals and birds, are reliant on cattle grazing for their particular habitat to be favourable for them. Grazing is not only complementary, but is beneficial to lots of wildlife. That isn't the message that is being pushed by the species at risk folks, but it is factual knowledge based on more than 130 years of grazing in this province. If we were to believe some environmentalists who want to eliminate cattle because they threaten wildlife, you would wonder how wildlife continues to thrive with cattle in the equation at all.

That brings us to the contentious issue of $50 million being channelled to species at risk programs. We happen to think there are more beneficial and efficient methods of conservation than putting money in the hands of preservationists.

Let me give you a quote from Ayn Rand to give you some clarity as to why many of us dislike and mistrust that policy and the direction of the species at risk legislation. She said: Economic power is exercised by means of a positive: by offering men a reward and incentive, a payment of value. Political power is exercised by means of a negative: by threat of punishment, injury, imprisonment, destruction. The businessman's tool is values; the bureaucrat's tool is fear.

I think the classic example is when a farmer is faced with a slough or wetland he has to make an economic decision on. In the past, it was very clear: drain the slough, get rid of the ducks and geese that are eating your crop, and get more income from additional acreage harvested. That was the mindset of the wheat monoculture in the past. There are now some other options available through incentive programs that may work well enough for you to maintain a wetland for groundwater recharge, depending on your skill as a negotiator with outfits such as Ducks Unlimited.

So here we are. The truth is not for all men but for those who seek it, and I hope you will seek it. That being said, why wouldn't we have incentives for those who maintain habitat through grazing cattle or sheep, as long as it is done sustainably? Those stewards of the land have been doing this for more than 100 years and have maintained wildlife habitat in spite of well-intentioned but naive environmentalists and bureaucrats who try their best to expand their pet parks or nature reserves.

There are more efficient and effective ways of ensuring that the stewards of the land who are already there will continue to maintain habitat for most species. The regulatory environment we all find ourselves under is not business friendly, nor is it conducive to maintaining future generations in agriculture. Quite frankly, there needs to be a total revamp of the balance between economics and the environment. While we applaud the recent announcement of the streamlining of the approval process for projects, we believe that the balance is still tilted towards those in the green movement, who have no understanding of economics and no skin in the game, so to speak, except ideologically.

I believe that the tipping point was reached in 1973, when the Endangered Species Act was passed in the United States. While initially supported, and believed by many to be the right thing to do, it was quickly hijacked by the anti-business green crowd and has foisted literally billions of dollars of unnecessary and irrational costs on all business and activity in the United States. Putting mice, lizards, insects, etc., above and in front of humans is insanity. Our species at risk legislation has tried to mirror some of the same approaches, claiming subspecies that are bogus, numbers that are ridiculously low, etc.

What started out as a game for some of these folks, because these groups didn't have any economic skin in the game, has become big business. Many of these groups fearmonger to raise money and bully to get grants and handouts. These green groups will eventually grind the economy to a halt.

All conservation efforts that get taxpayer dollars should have community support and be able to verify results. Giving money to large green groups, such as the Nature Conservancy to purportedly protect ranches and farms from being subdivided is sheer folly. Some of the land they have purchased conservation easements on will never be in danger of being subdivided. They merely needed to pad their portfolio to look better to fundraisers. It is far better that those initiatives have private donors who are naive enough to donate to frivolous causes.

Taxpayers should demand more effective use of their dollars. If government feels the need for effective conservation measures, they need to enable a landholder to continue to do the right things as far as management goes, and encourage, not discourage the person from doing so.

That's my presentation today. Thank you very much.

● (1125)

The Chair: Thank you.

Just before we proceed with additional witnesses, I would like to share with you the scope of the study of the committee. We sent out six questions.

What should be the purpose of a national conservation plan? What should be the goals? What are the guiding principles that would govern a national conservation plan? What conservation priorities should be included? What should be the implementation priorities? And what would the consultation process the minister should consider look like?

I encourage the witnesses to consider that scope as they make their comments, because the mandate of this committee is to report back, using those six questions as our guidelines for our trip here to Calgary.

We'll next hear from the Alberta Riparian Habitat Management Society—Cows and Fish.

Mr. Lorne Fitch (Provincial Riparian Specialist, Alberta Riparian Habitat Management Society - Cows and Fish): Thank you, and good morning. In your sweep across Canada coming from the west, thank you for bringing rain. It brings joy to our prairie souls.

Canada has some core natural resources, such as biodiversity, fresh water, fertile soil, breathable air, and a comparatively benign climate, which have no real substitutes. The suite of ecological goods and services, or natural capital, underpins the economy and society of this nation, although there is a significant reliance, particularly here in Alberta, on non-renewable resource extraction.

There is an ecological infrastructure in need of investment in Canada. Concern about damage to the economy needs an accompanying level of reflection about loss of natural capital. The credit crunch has a parallel meaning for society living beyond its ecological means. Our economic soundness is a direct function in the short-term and long-term of the strength of our ecological foundation.

A national conservation plan can create an objective for conservation in Canada, while opportunities and options still exist to create balance, awareness, and a future for subsequent generations. The Alberta Riparian Habitat Management Society, better known as Cows and Fish, has worked for 20 years to engender a stewardship ethic towards shared resources of water, watersheds, and biodiversity.

Cows and Fish is a non-governmental organization that operates at ground level on public and private lands, in both rural and urban settings, on the essential task of conserving and managing riparian areas—the interface between land and water. We think our experience, which also includes helping other areas in Canada to develop capacity and tools for watershed conservation, has applicability to this initiative for the national conservation plan.

We appreciate the opportunity to briefly share some of our learnings. They may be useful in the deliberations on the elements, principles, priorities, and implementation of a national conservation plan. Our work revolves around stewardship, as this national plan should. Stewardship is an amalgam of awareness, ethics, and action. These elements are not divisible; they are related and are a continuum.

The first, awareness, is achieving a level of understanding or knowledge that provides the foundation for the next two. The second is the development of a set of ethics, an encoded sense of responsibilities and obligations, to care for land, water, and air as part of our conscience. The third, action, is exhibiting appropriate choice, embodying balance, restraint, and a sense of legacy.

The way Cows and Fish applies these elements of stewardship assists in community-based conservation through a process of engagement that creates opportunity to move from conflict to cooperation. Stewardship opportunity is created through a five-stage process, beginning with ecological awareness. Engagement begins with awareness, an effort to help people understand some of the ecological processes that shape the landscape they live on, and from which many make a living.

● (1130)

The second step is assisting in the development of teams or partnerships at a community or watershed level. A network of resource professionals, landowners, and others who value riparian landscapes has to form in order to solve issues and problems in a multidisciplinary fashion.

Step three is the assemblage of technical advice and tools for management changes to provide options and alternatives to current practices. Much of the information is gathered from innovative, progressive and practical solutions already being used by a select group of landowners. The task is one of locating those individuals involved, understanding the management action taken, and translating that action into an alternative for others to assess for possible application to their operation.

Other tools help the community group link biodiversity, economics, and water quality to management actions and alternatives.

The fourth step is critical. It is a transfer of responsibility for action to the community that is in the best position to make the changes and benefit from them. Part of the critical initial messaging is that there are choices and alternatives to current management practices. As the antithesis of the centralist or top-down approach, Cows and Fish encourages the formation of local or community teams, composed of technical, producer, and other local interests, to engage with each other to drive the process.

Although the process steps are constantly repeated, the fifth step is the monitoring phase using ecological measuring sticks to assess riparian function or health. Those measuring sticks allow an objective review of watershed condition to set benchmarks, link ecological status to management, help galvanize community action, and provide a monitoring framework for landowners and others.

The essence of the Cows and Fish program is bound within the five elements of the process I've just described. The program has a watershed or landscape focus relating to restoration and management of landscape health. Science is applied to assist in ecological understanding, including measuring sticks for landscape function. Our process changes the way we engage with landowners, to move from situations of conflict to areas of cooperation. Through the process, communities and others begin to see, value, and use landscapes differently and create a landscape vision that includes elements of ecological restoration and maintenance.

Cows and Fish is not a government program but works with agency staff to increase their effectiveness in communities. The program and its elements undergo periodic evaluation to monitor progress and determine impediments or barriers to stewardship actions. The Cows and Fish process has direct and proven application to conservation efforts in agricultural communities. The process also has utility for the resolution of other land-use issues to achieve a stewardship and conservation outcome.

Riparian and, by association, watershed actions need to be community based, locally driven, and largely voluntary. To help a community to arrive at this point requires knowledge-building, motivation, acknowledgement of problems, and empowerment. The reasons for positive action may be enhanced awareness, motivated self-interest, concern about legislation, marketing opportunity, or altruism. The net effect will be a return to a landscape that maintains a critical ecological function and provides a greater measure of support for agricultural operations.

The following are the principles upon which Cows and Fish operates. It is science-based and ecologically relevant. It uses stewardship as a driver. It is built on ecological literacy, building awareness within communities. It is system-oriented towards watersheds. It is scope- and scale-driven, that is, driven by restoration of ecological function. It is long-term and future-focused. It is community-based and delivered. It links sustainable actions to economics, and it is measurable and measured. These principles may have direct applicability to the design of a national conservation plan.

Cows and Fish is about building a cumulative body of knowledge that we all should have, including that on how riparian systems function and link us, how watersheds work, the vital signs of landscape health, the essentials of how people need to work together, how solutions need to benefit us all, as well as the kinds of information that will enable us to restore or maintain natural systems and build ecologically resilient communities and economies. These might also characterize the outcomes of the national conservation plan.

Thank you.

● (1135)

The Chair: Thank you very much.

Next we'll hear from Mr. Jamieson.

Welcome. You have up to 10 minutes.

Mr. Bob Jamieson (As an Individual): Thank you.

I'm actually from just over the mountains in British Columbia. I'm a systems ecologist. I've been around for 40-odd years, but I'm a little bit of a different bird, because I've also ranched for 20-odd years.

I wanted to explain something about people like Larry and me. To survive as a cattleman, you have to be a very good business person, but you also have to be a very good ecologist, because we're not ranchers, but grass managers. If you don't manage that grass, you lose the basis of your business. So people like Larry and me are kind of caught. A lot of you know that cowboys are generally bowlegged and we assume that's because of riding broncs. The fact of the matter is that we have one foot in the economic realm and the other in the natural world, and we've built this picket fence between them, and we're always trying to survive in that sort of system. I think that's a big part of the problem we face here in trying to develop a national conservation strategy.

The first point I wanted to make was that as part of the multicultural landscape in Canada we now have greennecks and rednecks in addition to first nations and all the other cultures, including the francophone culture and everything else. These people do not communicate very well from the two sides of the debate. That's one of the things we have to resolve.

There was an interesting piece on CBC a couple of days ago when this young woman described herself as an “eco-holic”, recycling and doing all these green things, and I thought that on the other end of the spectrum, there are “dollar-holics” or “stuff-holics” who create this dilemma. The problem I see for Canada is that we try to address conservation issues in what I call combat-based decision-making. We have two sides, two positions, and we throw rocks at each other and there's not a lot of room, almost no room, in the press for people like Lorne who has spent his life working in the middle ground trying to find solutions.

The reason I've had to think about this is that I've been involved in issues in our valley across the mountains. We have three issues or conservation conflicts that have gone on for 15 years in our valley. We have no real solutions in any of those situations, and I think we're up around $100 million to $150 million in expenditures on the part of government groups and people in our community trying to solve these problems. It's becoming a big problem for our community. I think it's happening across Canada.

I'll tell you a little story about how far it's gone in our valley. You may be aware of this debate over a ski resort called Jumbo. It has split our community. The other day I was talking to someone who was perceived as being for this development proposal. He happened to play guitar and he asked another friend if he could jam with him to make some music; this other fellow is a professional musician. He said that would be great. He went to his band members and said so and wanted to come and jam with them, and one of the other band members said he couldn't jam with them because he's for Jumbo. That just breaks my heart to see our communities being pulled apart by these issues in that way.

The role of a national conservation strategy, in my view, is to at least think about these dilemmas and use this national conservation strategy as a tool to bring people together. I've done some thinking about this that I'd like to share with you. One is what I call individual context. For all the computers we have in this world, our decision-making software is a million years old. It was developed when we were all living in caves. There was a very interesting piece of information in *Scientific American* recently. They have chemicals that allow scientists to see which neurons are operating when they put you in an MRI scanner. They put people in the machine and ask them questions and when they're under stress and have to make a difficult decision, the neural activity shifts from the people's cortex to their lower brains, their emotional selves. Under stress we respond emotionally instead of intellectually. We all have examples of how that kind of response has happened over environmental issues across Canada.

The way it plays out is really interesting. I was chairing a group during the “war of the woods” in B.C. many years ago. A deputy minister for forests came. He gave a real barnburner of a speech and said it was absolutely imperative to “recycle” the land use problems in B.C. He meant to say resolve, but he was so caught up in the emotion of the thing that he provided a brilliant Freudian slip.

● (1140)

So I think it would be useful for us to look at the best of modern science in neurology, psychiatry, and psychology to see what we know about the brain and how our minds and brains work. This might allow us to see if there are some tools that we could develop to allow us to make better cooperative decisions.

The other piece of the puzzle is what I call the Walt Disney version of resource and wildlife management. We have people who think that the best thing Larry can do on his ranch is to keep all the calves. But if he does that, it's going to put him out of business. We have this sort of thought process that is antithetical to proper wildlife management and to actually getting things done and happening on the landscape.

In my view, our present approach to resource issues in Canada is counterproductive, not just for people but for wildlife. I want to give you an example that is quite fascinating to me.

We have a thing called a badger, which is like a groundhog from down east, living in our valley. It's a listed species. Under present regulations, you cannot disturb the habitation of an endangered species or a listed species. It makes sense for birds, which have one nest. Badgers have a hundred to a thousand holes where they dig up gophers. You can't tell which of those they are trying to raise their young in.

What is happening in our valley is an eco-restoration program that is fundamentally shifting our landscape from scrub timber to grassland that can support gophers and badgers. We're required by the act to leave a patch of timber around every badger hole. It's costing the forest companies doing the work hundreds of thousands of dollars, and it's counterproductive for the badgers, because they're a grassland species. The problem is that nobody in the whole system, from the local biologists with the forest company to our provincial people and up through them, is willing to sit down and say this is stupid. The response has always been that we have to follow the regulations, whether they make sense or not. We have to do some work around the listed species reports to make sure they work.

Another problem we have to think about is that we've had things like wolves and grizzly bears in our system in this part of the world for a long time. We're realizing that there are secondary and tertiary impacts from these animals that are causing serious problems for the ranchers in the world and creating major conflicts.

It's interesting. I drove here over the mountains yesterday. I went for a walk in Kootenay National Park. We were talking about wolves here today. I'll be a son-of-a-gun, but I had two wolves, from me to the far end of the table, at this time yesterday. They're beautiful animals, but they have a major impact on things.

In terms of solutions, what I want to suggest is that we spend a lot of time focusing on species. We have to shift our thinking to sorting out how those species are going to survive in a grassland system, or whatever kind of system. You will see in my notes that one of the other things that's important to understand is that we have landscapes managed by the national parks. We also have really important national landscapes of national importance that are run by east slope ranchers. It's the cultural equivalent of something that maintains those landscapes. To me, that's really important.

The final thing, and I'm with Lorne here, is that the focus of how we approach this conservation problem in Canada should be to do it locally. The major problem with groups that are trying to find common ground and work together is that you cannot make these decisions without controversy. When you have controversy over these issues, the end result is that it improves the funding opportunities for the people on either pole. The government and other people say, oh, we don't want to be near controversy, and for the groups in the centre that are trying to get things done, the funding ends. We have to find a mechanism to deal with that.

There you are.

Thanks very much.

● (1145)

The Chair: Thank you, Mr. Jamieson.

Finally, we'll hear from the Calgary Zoo.

We wish we had time to visit it. I visited the Calgary Zoo many years ago with my children, who are all grown up now, but it was a great experience visiting there. Yesterday, we visited Olds College, and then the Kerfoot Ranch, and it was a great day. Unfortunately, we didn't get to the zoo, but we're glad you're here.

You have 10 minutes.

● (1150)

Dr. Jake Veasey (Director of Animal Care, Conservation and Research, Calgary Zoo): First of all, I would like to thank the honourable members for the invitation to provide comment on the development of a national conservation plan for Canada. My intention this afternoon is to speak not only on behalf of the Calgary Zoological Society but also to represent accredited Canadian zoos and aquariums and illustrate collectively what we can and should contribute both to the development and the implementation of this worthwhile initiative.

Given the time constraints, I will focus on two key areas in which the contribution of zoos and aquariums is arguably unsurpassed by any other conservation sector, namely public engagement and captive breeding for reintroduction. However, committee members should also know that zoos have a growing and substantial role to play in conservation efforts in the wild across the globe through fundraising, the provision of expertise, and direct action, as they are mandated to do so by the world zoo and aquarium conservation strategy.

First of all, let me provide you some background information on zoos that may provide context to our potential contribution to this initiative. In North America more people visit zoos and aquariums annually than attend professional sporting events. In Canada, one in three Canadians visits zoos accredited by the Canadian Association of Zoos and Aquariums every year. In essence, more people vote in favour of zoos by visiting them annually than support any single political party at election time. These visitors represent a democratic cross-section of Canadian society, cutting across generations and socio-economic and cultural backgrounds, as well as including the physically able and those living with disabilities. So we're uniquely placed to bring different communities together to engage in constructive discussions relating to issues of the environment.

While visits to national parks and historic sites within Canada are in decline, attendance around the world at good zoos like the Calgary Zoo continues to grow. Zoos, therefore, have a huge, growing and potentially receptive audience for environmental education. Despite Canada being truly blessed with natural wonders and resources, Canadians, and our children in particular, are increasingly environmentally illiterate as communities become ever more urbanized. This worrying trend is perhaps illustrated by the decline in young visitors to Canada's glorious parks.

Zoos, working alongside parks and schools, are uniquely positioned to help reverse this trend toward a nature deficit disorder in our urban young. In connecting communities with arguably Canada's most cherished assets, its wonderful natural resources, Calgary Zoo has worked with educators from Parks Canada for the past two years trying to do just that, connecting our guests with nature and Canada's national parks network. The Canadian Association of Zoos and Aquariums also has a memorandum of understanding with Parks Canada on pursuing shared objectives of education and outreach.

Recent round table discussions on the development of a national conservation plan suggest that education, communication, and working with urban communities should be central components to this plan. Whilst many may challenge the impact that zoos have on environmental education, I know my personal journey in conservation was shaped by my early experiences of London Zoo as a child growing up in that city, and I know that many of my colleagues working in conservation share similar stories. I put it to the committee that the accredited Canadian zoos and aquariums provide a unique opportunity to engage Canadian citizens in discussions about conservation initiatives, connecting them with nature in an environment that sensitizes them to crucial messages in a way that the classroom or TV rarely can. In doing so, hopefully they will inspire us, as zoos did for me, to take action in our lives that can make a lasting difference to wildlife.

Beyond engaging people, zoos globally are already key players in biodiversity conservation. The 300-strong World Association of Zoos and Aquariums network contributes approximately $350 million a year to in situ conservation.

However, beyond conventional conservation activities, zoos are the experts in captive breeding and conservation genetics and reintroduction, strategies identified as key to 55% of Canadian species recovery programs. Furthermore, captive breeding and reintroduction has already played a role in 25% of the successful vertebrate species recovery programs worldwide.

Of course, extinction is forever, and zoos are likely to be the last hope for many species. Zoos already have guardianship of approximately one in seven of the threatened species on earth. Sadly, habitat protection alone is unlikely to prevent an inexorable decline of many species, including amphibian populations imperilled by the devastating spread of chytrid fungus; Asian freshwater turtle populations decimated by unsustainable and uncontrollable harvesting for food; and species impacted by accelerating environmental change, such as coral reef communities that are declining due to ocean acidification.

For these and many other species, zoos may genuinely be the only hope. It is for that reason that zoos should play a meaningful role in the development of a holistic conservation strategy for Canada. Zoos, after all, have already proven their effectiveness in helping to save many iconic Canadian species.

The Calgary Zoo, for example, has partnered with other zoos and conservation organizations across Canada and beyond to help reintroduce and recover the Vancouver Island marmot, whooping cranes, the swift fox, black-footed ferrets, and burrowing owls. In partnership with Parks Canada and the B.C. government, we hope to soon start work on restoring the iconic mountain caribou to the mountain parks of western Canada. We not only contribute captive-bred animals for release to such programs, but also provide expertise on population management and reintroduction of science and monitoring.

I hope I've shown that accredited zoos and aquariums may have a crucial role in the implementation of a national conservation plan. I also believe we can contribute to the development of that plan. After all, zoos are cooperative consensus builders.

Globally, captive-breeding and reintroduction is absent from the policies of most governments, and yet it is recognized to be pertinent to over half of Canada's species recovery strategies. Therefore, it would seem inconceivable to develop a conservation plan for Canada without recognizing and including the experts in this field.

Furthermore, zoos are already helping to shape national conservation policies. For example, the staff at the Calgary Zoo have been involved in co-authoring national species-specific recovery strategies for the swift fox, black-footed ferret, and black-tailed prairie dog, and they are currently active in planning the recovery strategy for the mountain caribou. In addition to this we also have international experience in conservation policy development.

In spite of their potential and actual contributions to conservation, historically zoos have not been widely acknowledged in the development of overarching environmental policies. Two recent federal and provincial documents commissioned on ecosystem strategies and species conservation make no mention of zoos and their past or potential contribution to Canadian biodiversity conservation.

Why is this? Is this oversight because zoos are thought of as commercial attractions alone rather than serious conservation organizations? I hope my presentation today has helped to illustrate that zoos are serious about conservation. Or is this oversight because of concerns that some have raised about captive animal welfare, leading to a political reluctance to engage with zoos? I'd like to address this point directly.

Professionally operated accredited zoos are passionate about and dedicated to the highest standards of animal care. They are held accountable to that by our accrediting bodies and, perhaps more importantly, the public. However, zoos must be open to constructive insights in order to move forward and seek continual improvement in animal care. I believe and hope that this is increasingly the case.

My own background in part is in the field of animal welfare science and policy development. I see only great synergy between a commitment to animal welfare and the role of zoos as conservation leaders, since conservation is in many ways about maintaining population and ecosystem welfare. In short, I believe the mandate of zoos has to be conservation in all its guises, including the contribution to initiatives such as this, but our moral licence to operate must be based around excellent animal welfare.

● (1155)

In summing up, and speaking on behalf of accredited professionally managed zoos across Canada, we have much expertise, enthusiasm, and skills to contribute to a national conservation plan, both in terms of development and subsequent implementation. We would be delighted to work with our government to help ensure that we collectively leave a rich and bio-diverse environment for future generations of Canadians.

● (1200)

The Chair: Thank you very much.

We will now move to questioning. We will begin with Mr. Lunney. Mr. Lunney, you have seven minutes.

Mr. James Lunney: Thank you, Mr. Chair.

I'd like to welcome all of our guests. Thank you for being here to help us talk about a national conservation plan. A previous group suggested that maybe we should be talking about a national conservation framework. I think you brought some issues before us in a manner that we haven't heard before, using some very creative descriptions and metaphors on the role of the rancher as an ecologist in managing his land successfully. It was a very interesting metaphor you used, Mr. Jamieson.

You guys, particularly the cattle ranchers here, correctly talked about the divide, the polarization, that happens when there's conflict, stereotyping, and antagonism rather than collaboration.

Mr. Fitch is sitting in-between the two of you. Your organization, Cows and Fish, seems to have had some experience in trying to bridge the divide. How long has your Cows and Fish organization existed?

Mr. Lorne Fitch: It's been in existence for 20 years.

Mr. James Lunney: You talked a lot about engaging people and getting community buy-in. That is a concept we're very interested in.

Our zoo friends talked about how urbanization has really led to a separation of people from the environment. Rural populations in many cases are in decline. The kinds of experiences that people growing up in rural communities have, just scratching around and taking for granted when learning about nature through daily life when interacting with it and managing it, are a minority experience when we look at Canada's population as a whole. Connecting people is one of our objectives here.

Mr. Fitch, if you can, could you give us an example, in your 20 years' experience, of how your organization has helped to resolve some conflict or helped to bring some successful ecological outcomes?

Mr. Lorne Fitch: Briefly, sir, over that 20-year time span, we've had the opportunity in Alberta to work with about 80 watershed or community groups. We currently work with close to 50 watershed groups.

That work is primarily on the backs of five specialists who engage and interact with those communities. They help those communities start not just to understand some of the issues they face but also how to resolve them.

Of course, in many cases those issues may be large and diverse. It's helping the community pick the issues that they can most reasonably deal with at the time. One might be water quality. One might be changes in riparian and watershed health which have resulted in lower water quality and perhaps finger-pointing from other organizations.

The way that we have been successful—and I'll give you some of the statistics from independent evaluations that have been done of our program—is that our specialists engage with rural communities, and increasingly with urban communities in later years, at a level that develops a relationship.

Those relationships that our specialists have been able to make with community members have led to trust and credibility. They've led to higher rates of learning. I might say it's a two-way process: It's not just about our delivering learning; it's about our learning from rural landowners as well. It also revolves around the frequency of contact that our staff have with rural landowners.

The end point of that—the awareness that builds when we bring people together in a sense of synergy to deal with issues, giving them or providing them an opportunity to see what tools are available and what the options and alternatives to current management practices are—has allowed people who form community groups at a watershed level to make management changes. Over the span of our existence that has meant at a community level that about 65% of the people we work with make a management change within about a three- to five-year time span of interacting with us.

It's based, though, on frequency of contact. The more frequent the contact, the more learning levels there will be and the rate at which management changes are done will increase. So it hasn't been done through the lure of financial incentives. It's been done largely through a stewardship ethic, built on a foundation of awareness of the landscape and the ecological functions and process of that landscape, and by helping people to understand their footprint and how to lessen that footprint while at the same time maintaining their economic opportunity.

● (1205)

Mr. James Lunney: Thank you for that.

Who funds your organization, or how is it structured, and where do you get your resources from?

Mr. Lorne Fitch: We cobble together money from a vast array of sources. The livestock industry helps us. Conservation interests help us. We get periodic grants from the provincial government. Municipal governments in Alberta help us. In the past the federal government provided some funding, but that is not on the table at this point in time. We'd be happy to take contributions today.

Mr. James Lunney: Can you describe the qualifications of five facilitators or specialists that you refer to?

Mr. Lorne Fitch: These are people with biological degrees. They are both conservation biologists and professional agrologists.

Mr. James Lunney: Thank you for that.

Moving over to our parks folks, with regard to zoos—and I'm speaking for aquariums as well—I appreciate your being here and raising a question. You asked why a couple of major studies were done recently. I think that was the question. Two recent federal and provincial documents commissioned on ecosystem strategies and species conservation make no mention of zoos, and you asked why that is.

I think your presence today is actually helpful. You make a valid point about engaging Canadians. For a lot of Canadians, especially urban ones, their first experience seeing the animals they might have seen on TV or in a book is at the zoo.

The Chair: Mr. Lunney, your time has expired.

Mr. James Lunney: You're kidding.

Hopefully, I'll get another round.

The Chair: Thank you.

Monsieur Pilon, you have seven minutes.

[*Translation*]

Mr. François Pilon: Thank you, Mr. Chair.

My question is for you, Mr. Fitch. You talked a lot about your organization's overall operation. Could you explain to us how a project works, more specifically? That would give us a better idea of how your organization works.

[*English*]

Mr. Lorne Fitch: By all means. Thank you.

A community generally at a watershed scale may face some issues. Perhaps they have a water quality issue that's been identified as part of a larger sub-basin bit of research. They realize they have to do something. They don't know exactly what to do. Based on our experience and the fact that we're known in rural Alberta, we get a call asking for our help with this issue.

We step in. I will use one watershed group as an example. The Beaver Creek Watershed Group at the south end of the Porcupine Hills, part of the Oldman watershed, asked us to help them resolve what it was that was causing an issue with water quality. So we helped them form. Ironically one of the first steps we had to take was help them re-form their community. Rural communities don't exist in the cohesive way they used to, and so we had to help that community re-form so that they had a body of people suitable to start resolving the issue.

Mr. Lorne Fitch: We provided them a series. This took a time span of at least three years of ecological awareness. How do riparian areas function? What is the role of watersheds? What is the role of riparian health in relation to water quality? How do healthy riparian areas, the essential filters and buffers, help resolve water quality issues?

We then worked with them, and I might add others, to look at pilot projects, experiments, if you will, with engaged landowners who were willing to change management practices and move cattle wintering sites out of the stream valley to off-stream watering sites. They changed the distribution pattern of livestock so that they didn't spend so much time in a riparian zone or in the stream zone.

Then there was engaging the community in a series of field trips and social events, eventually leading them to the realization that they had to measure riparian health. They had to have a benchmark of where they were. Creating that benchmark was done over a span of a couple years. Then there was coming back in about a five-year time span and remeasuring riparian health, based on the management changes they had done. Then there was helping them use that information to promote the idea that they would be good, and were being good, stewards of the land and were making progress, even though there were big challenges. Those changes would have to happen probably over the span of a decade or two, not overnight.

In so doing, they were providing a message to the outside world that these people were not destroying riparian areas. They were not destroying the watershed. Indeed, they were working on creative and consultative ways of increasing riparian health, and in so doing, water quality for downstream water users.

We're still working with that watershed group and probably will continue to work with them for the foreseeable future. I think we've been working with them now over the span of nine years. This, quite literally, is a patient person's business.

● (1210)

[*Translation*]

Mr. François Pilon: A few times, you said it had to be voluntary. Do you think there are any areas where it should be mandatory, where immediate action must be taken even if everyone isn't in full agreement? Are there areas where intervention should be mandatory?

[*English*]

Mr. Lorne Fitch: I think we need good rules of the game. I think we need strong legislation and strong policy. I believe, and this is based on almost 30 years of engaging with rural landowners, that until you provide them the awareness, the basis for understanding what the legislation is supposed to do, you will not get acceptance and uptake. Yes, there are situations that are so egregious that they have to be handled in an enforcement way. But in the vast majority of cases, I believe that the responsible action is to have education and awareness leading to an acceptance of that legislation and policy. In so doing, you create a much stronger bond for landscape health. You also create a situation of longevity, where people keep at it over the longer span of time.

The Chair: You have another minute and a half.

[*Translation*]

Mr. François Pilon: Mr. Veasey, you said you reintroduce species into nature. Do you have any figures on roughly how many species you reintroduce a year?

[*English*]

Dr. Jake Veasey: It varies on an annual basis. We also do more than simply put animals back into the wild. We are active in whooping crane and the Vancouver Island marmot at the moment. We're due to be sending Przewalski's wild horses back to Asia, as well, outside of Canada.

We have a conservation research department that provides a lot of the science behind the ongoing monitoring and development of those programs. It's not as simple as saying that all we do is provide animals. We actually provide a scientific foundation for a successful reintroduction program. It's a very holistic, long-term approach.

The Chair: Thank you.

Next is Mr. Toet, for seven minutes.

Mr. Lawrence Toet: Thank you, Mr. Chair. Thank you to our witnesses appearing this morning. It is greatly appreciated that you have taken time out of your schedules to come here to meet with us.

I wanted to start with Mr. Sears. In your presentation, you made a comment regarding livestock grazing and its role in maintaining, and in fact conditioning, habitat for other wildlife species. I'm just wondering if you could expand on that a little bit and explain how that process works, bearing in mind that several of us around the table are urban residents. If you can just give us a bit of education on that, it would be very helpful.

● (1215)

Mr. Larry Sears: Certainly. Many of these species, including the burrowing owl, the Richardson's ground squirrel, or the common pest we call a gopher, prefer grazed-off land so they can see predators coming—issues like that. They certainly don't survive in ungrazed conditions where the grass is tall; they don't feel comfortable there. When you look at elk and deer, for instance, they prefer conditioned ranges that have been grazed and will have lush, green grass this time of year, and have a nice carry-over for the wintertime that isn't old and decadent—four or five years' worth of old grass that isn't nutritious and useful to them. They prefer our winter and spring pastures, and get along quite well in hayfields as well. Ungulates are smart and very adaptive animals. As far and elk and deer go, they go to where the best available and most succulent grazing is. They will follow the cattle around. That's where they are going to be.

Mr. Lawrence Toet: Thank you for that. I think it's an aspect that is important for us to understand and see. I can actually attest to that. Although I'm urban resident, I do live right at the edge of the city and I have fields behind me where deer are all the time. Exactly as you say, they tend to want to pick out the fields where they have the most ability to move rapidly from danger. It's a pretty easy observation even for me to make, as a non-cattle rancher in any way, shape, or form. I appreciate that insight.

I wanted to quickly ask Mr. Veasey something regarding the zoos. You talked about the education of youth, especially urban youth, which is one of my key issues as we go forward on this, and you even had a phrase for it here. You called them “environmentally illiterate”, and I think you spoke about the “nature deficit disorder” amongst our urban youth. You have been working with Parks Canada in order to educate them and, to my understanding, moving them away from just a visit to the zoo—which is great in and of itself—but out to our national parks and even to our other wonderful landscapes outside of the park setting. There are some great areas within Canada. You don't necessarily have to go to a national park to see some wonderful nature. We need to conserve that.

Can you elaborate on some of the programs you have done and the effectiveness of them, and how we can learn from them and implement them with maybe more of a nationwide strategy?

Dr. Jake Veasey: If you don't mind, I'm going to defer to Kevin Strange, who is responsible for that.

Mr. Kevin Strange (Senior Advisor, Conservation Outreach, Calgary Zoo): Maybe I could describe the Parks Canada partnership. We have national park interpreters resident at the zoo in July and August. They have been doing so for the last couple of years. The theory is that by flicking on a microphone at the zoo, they could be talking instantly to 200 or 300 people at a time, and doing that all day long. They would really have to hustle to find an audience that size in the national park. What they are trying to do, in part, is to teach Calgarians in this case that they have these resources not very far down the road from their homes, and that these things should be valued. Parks Canada is at the zoo trying to generate customers and people who could be stewards of those parks later on. It's working very well; the visitor numbers are huge. We're going to keep going with that program this year.

We also work with the Palisades Stewardship Education Centre, a residential program in Jasper, where students from the Edmonton and Yellowhead area mainly are going to Jasper to the old warden training facility for a longer period of time. They are immersing themselves in the park. We help them develop the curriculum for that and pilot some of their programs.

We've been introducing students to some of the research that Dr. Veasey talked about. We then put them on buses, eventually getting them up to Jasper to carry on with that program. So that's another way.

I have partnered with some of the parks people at conferences in the U.S., to talk to park managers there about how to engage an urban audience in national parks' issues. We have Banff's airport in Calgary. A lot of visitors are just landing in Calgary and then heading out to the park. They become management issues for the park. If we can intercept them at the zoo, they will be much better, more informed users of the park when they get there.

The same thing goes for all the natural areas around Calgary. Over the years we've had partnerships with a Nature Conservancy project just south of Calgary. We partner with a great many organizations throughout the province, doing environmental education initiatives.

● (1220)

Mr. Lawrence Toet: When you say your visitation rates are way up, is that at the park or within the structure you're working within at the zoo?

Mr. Kevin Strange: It's within the zoo. We have national parks interpreters in national parks uniforms, looking like parks employee in every way, and they're standing in front of the grizzly bear enclosure at the zoo, talking about all the same kinds of things they would talk about at the park related to grizzly bears.

Mr. Lawrence Toet: Has Parks Canada been able to quantify whether they've also seen an increase in visits to the parks? Is there any follow-up or any way of their tracking that?

Mr. Kevin Strange: I'm not aware of that yet, but I believe they are trying to track it. They're quite diligent about counting heads and rear ends in the seats at the zoo, for sure.

The pilot project happened two years ago, and they're thrilled to keep going with it. It's been working well for them. They're now under a mandate to try to increase the number of youth, new Canadians, and urban Canadians. These are the people at our zoo.

Dr. Jake Veasey: If I might add, we are in long-term discussions with Parks Canada about developing this program further. In the zoo's master plan a zone is due to be developed that will tell the story of parks conservation in Canada. Obviously, we want to work with Parks Canada to bring that forward.

The Chair: Thank you.

[*Translation*]

Mr. Choquette, you have five minutes.

Mr. François Choquette: Thank you kindly, Mr. Chair.

I want to thank the witnesses for being with us today.

Some earlier witnesses advocated more of a framework than a plan. I want to make it clear that they were the only witnesses, of all the people we have met with, who talked about a framework. I hope our report will not endorse a framework, but instead a plan. It would be pretty outrageous if that were the case, since it was just a single group of witnesses who recommended such an approach. All our other witnesses spoke to the importance of a conservation plan. I just wanted to set the record straight on that.

Yesterday, we visited a ranch, and it was quite impressive. They were fine examples. I am not sure whether you support a partnership with a nature conservation group that would enable a rancher to do their work in harmony with nature.

Should a national conservation plan call for such partnerships? One of the three witnesses can answer that.

[*English*]

Mr. Bob Jamieson: Do you mean conservation easements specifically?

[*Translation*]

Mr. François Choquette: Is that something you support? Where do you stand on that? We visited a ranch. I can't remember the exact name.

An hon. member: Kerfoot ranch.

Mr. François Choquette: There is indeed some easement, but it enables the rancher to carry out all their activities without any problems. What are your thoughts on that kind of easement?

[*English*]

Mr. Bob Jamieson: I'm sure Larry will respond, but I'll give you my sense of it.

This landscape to the south of Calgary called the east slope, where Larry lives, is an absolutely spectacular place. It's been maintained so that it's basically the same as it was when I was a kid. There are no subdivisions, but it's because of the culture of the people who live there. Ranchers like Larry, in my sense of things, are caught between those people who want to subdivide that beautiful landscape and conservation interests who want to develop conservation easements —like NCC, the Nature Conservancy of Canada—but who are also perceived as trying to control how they manage the land. So it's a real dilemma for people anywhere when we're doing this.

The Nature Conservancy in the States has made some pretty serious mistakes in how they've handled ranches down there, and those stories have come north and created a lot of problems on our side of the border.

So it's certainly a very powerful tool, but it has to be applied with the agreement and support not just of the specific landowner but also of the community.

● (1225)

Mr. Larry Sears: Conservation easements can work in certain situations and may be the right tool for some people who are in need of a cash infusion to maintain their operation.

The difficulty some of us have with conservation easements, in particular, the Nature Conservancy, is that these conservation easements are in perpetuity, forever. That's a pretty big step for, say, someone like me to make for my children and their children. I'm not sure that everything will always be the same and that the best use of that land will always be represented by Nature Conservancy.

The other issue we have with Nature Conservancy, as Bob mentioned, is the ability or inability of the operator to manage and control as he formerly did. It depends on the skill of the negotiator and how badly Nature Conservancy wants a piece of this particular property.

The other aspect about it that bothers some of us is that recently Nature Conservancy has had the use of, I believe, $760 million of taxpayers' money to go out into the marketplace and compete with individual landowners who may be wanting to purchase that property as well. If it were private dollars raised by Nature Conservancy from people who thought conservation in this particular area was appropriate, most of us would have no trouble with that at all. But to have to compete with taxpayers' dollars if you want to buy a neighbouring ranch that Nature Conservancy wants is patently unfair and we don't believe it should happen.

Thank you.

The Chair: Mr. Lunney, you have five minutes.

Mr. James Lunney: Thank you for that.

I'll go back to where I was a few minutes ago. We were talking to our representatives from the Calgary Zoo.

You also mentioned aquariums there. A few days ago the committee was out on Vancouver Island. We were looking at habitat issues out there, but we also were hosted by the Vancouver Island shellfish research centre, which had a very interesting display there in some of the tanks. They said they brought us to the tanks at the end because once you get a group in there it's hard to go on with any other program. Of course we were looking at the various aquatic species interacting in a tank where you can touch them and observe them up close, and so on.

We have another aquarium about to open in Ucluelet, on the west side of Vancouver Island.

The sea, for those of us on Vancouver Island—and we have people living on the land and we have the marine area there, and a lot of people just do not interact with what's going on—has a whole world of activity just below the water. Getting kids engaged in tide pools and looking at the aquatic life and the intertidal zone and so on is such an important experience.

Coming back to where you were just a minute ago when Mr. Toet asked you questions, you mentioned some environmental education in the zoo. You mentioned the parks people being there, but are you doing any programs in the zoo, or going into the schools, for example, to make presentations there and just taking them out in the school yard?

What can be done in an urban setting to help people appreciate nature that's around them in a way that's positive and not structured?

Dr. Jake Veasey: We have in excess of 25,000 formal school visits a year at the Calgary Zoo. We have 1.2 million visitors overall.

We hope everyone who visits the zoo will take something beneficial away from it. A lot of that is not necessarily through formal education, but merely by the experience of getting the opportunity to see animals, to get close to animals and to smell them. You described the experience at the aquarium. There is a very real difference between being up close and personal to a living animal. I think it sensitizes people to conservation messages, which TV and classroom-based education really can't.

We approach conservation education on a whole bunch of levels, such as formal teaching programs in the zoo and keeper talks throughout the day.

Kevin might be able to talk about the numbers of people we think are exposed to educational experiences at the zoo.

● (1230)

Mr. Kevin Strange: Something like 300,000 people attended programs at the zoo last year. There are years when the total audience for the organized programs at the zoo is 500,000 people. As well as the 25,000 children who attend formal curriculum-based programs at the zoo, there are another 25,000 who attend on a more informal basis at the Calgary Zoo. That pattern is probably the same in CAZA accredited zoos across the country where they exist in urban centres. They are very popular field trip destinations for anybody who is living in a city and teaching in a city.

Maybe I could just make one comment about getting out into the community and teaching people to engage with nature. We have a program that involves school yard naturalization—not school yard beautification, just school yard naturalization. It creates a setting in a school ground, which usually has a couple of species of grass and a lot of asphalt. It creates an opportunity for kids to see a little more biodiversity. The trick is just to get kids in nature, to roll around in the grass, play in the dirt, and get their fingernails dirty. We're starting to sense, as a growing body of research indicates, that a person's world view about nature may start to form as early as age two. For a child who is just playing in the dirt, that could have a profound impact. A child who's squeamish about earthworms is probably going to grow up to be someone who is not a steward of nature and doesn't really care much about the environment.

If you go to the zoo today, you'll see a lot of moms, mostly, who are pushing two-year-olds around in strollers. In schoolyards on the week-ends you'll see a lot of small children playing in the dirt with their older brothers and sisters. Those things are making an impact, which I think zoos are fairly uniquely positioned to do, because they exist in urban environments.

Mr. James Lunney: Thank you for that.

The Chair: The time has expired.

[*Translation*]

Mr. Pilon, you have five minutes. Go ahead.

Mr. François Pilon: I have a short question for the zoo representatives.

Where does your operations funding come from?

[*English*]

Dr. Jake Veasey: I think in the region of 80% of the money comes directly from visitors and self-generated income. We get an operating grant from the City of Calgary.

[*Translation*]

Mr. François Pilon: Thank you.

I also have a quick question for Mr. Jamieson.

Do you think increasing grazing production could prevent wetland destruction?

[*English*]

Mr. Bob Jamieson: The way I look at the grazing system in western Canada is that in 1800 we had a couple of million bovids, animals with big hooves and square mouths, grazing the landscape. We've replaced them with domestic cows. The timing is different, but cattle play a very similar role in the system that bison or buffalo played a long time ago.

It's a very complicated process of thinking through grass management, but in effect how that works ecologically on the east slope in the Cypress Hills and the sand hills has not changed a lot. It certainly hasn't changed to anywhere near the degree that it's changed on landscapes that we cultivate and where we turn over the soil over, etc.

Part of my view of the world here, as a systems ecologist, is that we now have a mix of natural and industrial systems that fit together. Cattle have replaced bison, logging has replaced fire; there's a whole bunch of ways in which....

The ecosystem restoration in our valley is entirely dependent on the presence of the pulp mill, for some very complicated reasons. We have to think about these things as systems rather than always focusing on the fate of ferrets or sage grouse or caribou. We have to think about things in a fundamentally different way, in my view.

I'd like to add one more comment, if I may, just in support of the zoo guys. I happened to work with these guys in Africa. In addition to the things they talked about in terms of educating people here, they are involved in something called the Wechiau hippo sanctuary in west Africa, near where I used to work over there. It is one of the best examples of community-driven conservation on the planet. That role played by zoos is one that they haven't mentioned here, and it's really important to understand.

[*Translation*]

Mr. François Pilon: Mr. Sears and Mr. Jamieson, as has previously been mentioned a few times, we toured Olds College yesterday. They showed us that being ecologically minded and profitable were not mutually exclusive.

I'd like to know where both of you stand on that.

[*English*]

Mr. Bob Jamieson: I think you can't make a profit if you aren't thinking about the ecology of the landscape you manage. It's crucial. That's where, in my view, we're not thinking appropriately about these things.

Larry is the land manager of a big chunk of the Porcupine Hills. His role is critical, and he is frustrated—if I may speak for him—as a lot of people in that part of the world are, because they're treated like the enemy when in fact they are the most important part of the entire system.

The other point with that, as we try to find solutions, is that I think we've done a way better job in Canada around watershed management and water issues than we've done around land issues. We have to think through how we would get the people in the Beaver Valley or the east slope to deal with the water element of issues there but also the land issues. I don't think the watershed group for Oldman is going to want to talk about wolf issues, or sharp-tailed grouse, or sage grouse, etc. We have to figure out a mechanism to deal with the land issues in the same community-oriented way as we do with the water issues.

● (1235)

The Chair: Time has expired.

Mr. Toet, you have five minutes.

Mr. Lawrence Toet: Thank you.

I'd asked the Calgary zoo people about education, but I think it's also a very important aspect here. I'd love to hear the insights from Mr. Sears and Mr. Jamieson as simply ranchers.

Do you feel there's a role that you can play also in the education aspect of rural versus urban? One of you talked about the cultural divide that we have. How can ranchers play a role in bridging that divide, bringing the two parties together, and getting rid of that conflict aspect? Do you feel there's a role that you can play? And if you do, have you thought about that? Or are there actually some things in place that are already bringing that about?

Mr. Bob Jamieson: As a kid I had the huge opportunity to work, as one does at 14, on the Stampede Ranch in the Eden Valley. That place was Guy Weadick's, the guy who started the Calgary Stampede. It was a wonderful experience to connect me to the natural world. Watching a calf come out of its mother changes your world view.

In those days, 50% of my generation had that experience here in Alberta. Now it's 1%. The problem with that is that it's not about walking around looking for calves any more; it's about driving big machines.

I think a lot of us would love to have the kids out there—I have kids out to my place all the time—but it's hard to give them a sense of being involved. You don't want to put a 14-year-old on a tractor or a combine. It's not a simple proposition. But I definitely think, in the same sense that we take people out to show them national parks and give that experience to them, that they should be visiting operating ranches. We should have a national program to support kids going out.

I think you'd have to pay one of Larry's kids to corral them—you know, take care of them for the day and keep them out of trouble—but I think the concept is really important in terms of reconnecting with those landscapes.

● (1240)

Mr. Lawrence Toet: Mr. Sears, could you add to that?

Mr. Larry Sears: Definitely. Thank you.

I think we do have a role to play. It's been difficult to do it. As Lorne mentioned, relationship-building and trust are key. Experiential knowledge exists with us, as the land managers. Some of us may not have a degree from a university, but I have a master's degree from the school of hard knocks, I can guarantee you.

So there's a lot to be learned. As Bob mentioned, we represent the less than 1% of the population with rural roots anymore. Many people don't understand the practical aspects.

One of the agricultural groups here in the province has a classroom agriculture program, which is aimed at grade 4 students across the province. They get into as many classrooms as they can to give them a bit of an education. That's helpful.

For a lot of us, it would be encouraging, I guess, although somewhat of a burden, to entertain urban people who come out and have a look to try to understand how your operation goes. I've entertained lots of international groups. It's fun; they were our customers and clients at one time or another, and it's highly rewarding to be able to do it. Quite frankly, though, I don't have the time. We're too busy trying to make a living.

So it's difficult. It's a challenge.

Mr. Lawrence Toet: Yes. It is a challenge, but effectively it could have some great results if we could go forward on that.

Mr. Fitch, did you want to add to that?

Mr. Lorne Fitch: I'd like to point out that this is one of the premier awareness documents of the Cows and Fish program. There are about 75,000 of these circulating around North America and other parts of the world. Stories about ranch management and examples of ranch stewardship make up about half of the documents. These documents don't go just to the agricultural community; they're circulated through a wide variety of communities.

In addition, Cows and Fish has developed a kids game, called *Cows, Fish, Cattledogs and Kids!*, which we deliver to about 2,500 kids per year. It helps kids, primarily in urban centres, understand not only landscapes and watersheds but also how management actions on the part of farmers and ranchers can enhance watershed quality and quantity.

The Chair: Mr. Toet, your time has expired.

[*Translation*]

Mr. Choquette, you have five minutes.

Mr. François Choquette: I now have some questions for the Calgary Zoo representatives.

I am quite pleased to see the work you are doing. I will definitely return to Calgary to visit your zoo. You seem to be doing very valuable and fascinating work.

Yesterday, I met an urban park and nature area expert. Your extensive conservation program is more animal based, but I noticed that the island where the zoo is located is a wonderful place. It has a whole ecosystem.

As far as urban parks go, more and more, should we take an approach that focuses on natural areas, as we heard yesterday from Marie Tremblay, who did a Ph.D. on the subject? She said that was the best way to protect the ecosystem. Do you have an opinion on that?

[*English*]

Dr. Jake Veasey: Again, I think we're quite blessed at the Calgary Zoo. We are set along the river, and we have beautiful trees. I think having that more naturalistic, green environment does make people more receptive to the environment.

I think traditionally the Victorian-era zoos were far more formal. I think now, as we look more holistically at issues in terms of conservation, we're not just interested in species; we're interested in the environment of those species, where they come from.

The structure of zoos is becoming more naturalistic, and I think the same should be true of urban parks. There are environmental opportunities in managing urban parks in a slightly more relaxed, naturalistic way that I think have conservation benefits in themselves but also make people more receptive to conservation messages, because they reflect more accurately the natural environment than very well-mowed lawns and formal flowerbeds do.

[*Translation*]

Mr. François Choquette: Thank you very much.

Indeed, as you mentioned, having as many natural areas as possible in urban zones would also help with what my Conservative colleagues were talking about, that is, educating the urban population.

To the ranchers, there is no doubt that you are conservation professionals. As you explained, it's your livelihood. So you have everything to gain from nature conservation; that is clear. There is a tendency in cities, however, to brush aside the importance of nature somewhat. It really is key to bring people closer to nature, to spaces that resemble natural areas as much as possible.

You said you had a program to reintroduce animals into the wild. Do you keep track of those animals afterwards? I believe that involves the use of what they call tags. Is there any monitoring? Could you tell us a bit about that?

[*English*]

Dr. Jake Veasey: We have a conservation research department, whose mandate is to facilitate conservation action within western Canada and internationally. The animal care department of the Calgary Zoo will produce animals for reintroduction. Our conservation research department is also involved directly in the monitoring of those animals and the success of those programs.

The Calgary Zoo's involvement in the black-footed ferret program, for example, is not exactly in breeding of black-footed ferrets; we provide the science and inform those parks and the other stakeholders on how to implement that reintroduction program. We work very carefully on the black-tailed prairie dog, which is the prey species of the black-footed ferret. We have an excellent scientific foundation on which we can provide the stakeholders the skills and the knowledge to make that reintroduction project successful.

So we definitely don't release animals and walk away. We're very much into follow-up.

The Chair: Thank you, Mr. Choquette.

I want to thank the witnesses for being with us today.

I can assure Mr. Jamieson that we will do our best at using the logical-thought portion of our brain and come up with a good recommendation to the government.

Thank you again.

We're suspended until 2 o'clock.

● _____ (Pause) _____ ●

● (1400)

The Chair: I would ask everyone to take their seat as we begin this last session of hearing from witnesses.

I'd like to welcome and thank the witnesses who are before us today as we finish our 37th meeting of the Standing Committee on Environment and Sustainable Development, as we study and listen to witnesses regarding the development of a report to be forwarded to the government with recommendations for what a national conservation plan would look like and the form of consultation that it would take.

Each of you has received an invitation. Thank you for being here with us today.

The scope of our study is contained in the following six questions: What should the purpose of a national conservation plan be? What should the goals be? What should the guiding principles be? What conservation priorities should be in the plan? What should the implementation priorities be? And, what consultation process should the government consider?

Welcome and thank you so much for being here with us today. We have to end at 4 o'clock sharp or a little before, because some members have very tight flight connections. So we will begin by hearing from Alberta Beef Producers.

Mr. Sawyer, you have up to 10 minutes.

● (1405)

Mr. Doug Sawyer (Chair, Alberta Beef Producers): Thank you, Mr. Chair.

I would like to refer to our executive director, Rich Smith, to do the actual presentation. He's a far better speaker than I am, so we'll get Rich to lead off, please.

Mr. Rich Smith (Executive Director, Alberta Beef Producers): Thank you, Doug.

I think Doug is maybe a little too modest about his speaking. I'm Rich Smith. I'm the executive director of Alberta Beef Producers. Doug Sawyer is the chair of our organization, and he's a cattle producer from near Red Deer.

First of all, I would like to thank you and the members of your committee for the invitation to come and make a presentation here.

By way of background, Alberta Beef Producers is a democratic and representative organization that works on behalf of more than 25,000 cattle producers in the province of Alberta. Our job is to work to try to make the industry more competitive and sustainable. We are an organization of producers working for producers, and we have been a strong and consistent voice for the industry in Alberta for over 43 years.

Cattle and beef producers across Canada depend on land and water for their livelihood, and we believe that the vast majority of these producers are good stewards of the land and water resources of the province. While producers use our natural resources for the sustainable production of food for consumers in Alberta, across Canada, and around the world, cattle and beef producers are also concerned about protecting and enhancing natural areas and ecosystems. They understand the importance of these landscape features to society and to the public, and within the economic constraints of a competitive industry, they are prepared to provide some level of conservation for the benefit of the public.

A national conservation plan that recognized the contributions agricultural producers can make to the conservation of natural areas and ecosystems, along with the need to maintain agricultural production in many of these areas, likely would be supported by most cattle producers. If a national conservation plan included a comprehensive program that provided fair and significant compensation to landowners for conserving natural areas and ecosystems, the acceptance and adoption of this plan by cattle producers would be enhanced considerably.

To address the questions that were presented as the scope of the study, in our view, the purpose of a national conservation plan should be to conserve valuable and important natural areas and ecosystems while ensuring that an appropriate balance is maintained between the societal and environmental benefits provided by the national conservation plan and the economic benefits generated by the productive and sustainable use of our natural resources in real working landscapes. The goal of a national conservation plan should be to provide a level of protection, enhancement, and restoration of natural areas and ecosystems that truly reflects the priorities and thresholds that are established by government, industry, and the public.

We spent a considerable amount of time on the principles we thought should govern a national conservation plan. We thought this was one of the most important of the questions, and we identified a number of principles. We think it is very important that there be a clear identification of priorities and thresholds for natural areas and ecosystems to be conserved.

The national conservation plan must identify which landscape features are to be conserved and how much or how many of these features will be covered by a NCP.

A national conservation plan must be developed and delivered by a partnership of government, industry, and the public. Local and community-driven partnerships will often be more effective than national agencies in achieving conservation goals. This has certainly been our experience in this province.

A national conservation plan must recognize the contribution that agricultural production and agricultural producers make to conservation. The most effective and widely used conservation strategies will be complementary to, not in competition with, agricultural production.

For it to be really effective, a national conservation plan must apply to both public and private land, but it must also respect the property rights of landowners. Well-managed private lands can make a significant contribution to the conservation of natural areas and ecosystems.

The national conservation plan must identify and assess the value of the landscape features and ecosystems that are to be conserved. The plan must recognize that not all landscape features and ecosystems have equal value, and very few of these features are in a historically natural state. A national conservation plan that tries to conserve all natural areas and ecosystems or attempts to return these areas to some perceived former natural state likely will not be successful.

While some level of government legislation and regulation will be necessary to establish the framework for a national conservation plan, the primary driver for the plan should be voluntary incentives and market-based mechanisms. If the conservation of natural areas and ecosystems in a plan represents realistic and defined ecological goods and services, an effective and comprehensive program that provides fair compensation to landowners for supplying these services will encourage widespread acceptance of the plan.

The legislation, policies, and programs of a national conservation plan must not encourage significant purchases of land or the removal of land from food and fibre production to meet the requirements of the national conservation plan. The conservation strategies must be largely consistent with the continued production of food and fibre from working landscapes.

Establishing the conservation priorities in a national conservation plan must be done through consultation with key stakeholders from government, industry, and the public. There certainly does not seem to be a shortage of priorities that have been identified by a wide range of stakeholders already, but establishing appropriate priorities for a national plan will be a challenging task, and it will require a great deal of collaboration and consultation among the stakeholder sectors.

Similarly, the implementation priorities will become apparent through the development of the plan, but the implementation priorities must follow the principles governing the national conservation plan.

The strategies for conserving various natural areas and ecosystems will have differing levels of urgency depending on the current state of the features and the degree to which they are threatened. This circumstance will clearly have an impact on the implementation priorities of a national conservation plan. Implementation priorities and the effectiveness of implementation will be greatly affected by the perception of the process. Using an effective consultation process that creates a true partnership of government, industry, and the public in the development of the national conservation plan will help ensure the commitment of these partners to the implementation of the plan.

We suggest that the minister must consider an open and transparent collaboration and consultation process based on the meaningful involvement of a broad range of stakeholders. This should probably be a staged process of consultation building from regional to provincial and finally to national discussions and culminating in a national conservation plan that reflects the input from all of these stakeholders.

For this process to be most effective and efficient, there will be a need to balance the desire to include a broad range of stakeholders with the equally important task of restricting the involvement of people who may represent narrow societal and environmental interests, small segments of society, and stakeholders who are not directly affected.

That concludes my presentation.

Doug and I are prepared to answer questions.

● (1410)

The Chair: Thank you very much.

Next we'll hear from the Canadian Cattlemen's Association.

Mr. Grant, or Ms. Jackson, go ahead, please.

● (1415)

Mr. Lynn Grant (Chair, Environment Committee, Canadian Cattlemen's Association): Thank you.

My name is Lynn Grant. My family and I ranch in southwest Saskatchewan, near Val Marie. I want to thank you for the invitation to speak on behalf of Canada's 83,000 beef producers in regard to your conservation plan. As chair of the environment committee of our association, I can assure you that this is an area of great importance to cattle producers.

Farmers and ranchers are conservationists by nature. For us, it's a business essential to have sustainable production and management. It's not a luxury, it's an essential, and we have been practising it to the best of our ability and knowledge to date.

Ranchers are in a unique position, as we are able to own and operate dynamic, profitable businesses within a natural habitat. This habitat includes grasslands and pastures.

Grazing is essential for a properly functioning grassland ecosystem to remain healthy. Grasslands National Park, near my home, reintroduced cattle to the park after 20 years of excluding this major grazer. Their studies had shown a reduction in biodiversity and ecosystem function without the major grazer on the landscape. So eliminating cattle is not an answer; they are part of the solution.

Canada has 160 million acres of agricultural land. Approximately one-third of that, or over 50 million acres, is grass. That is a sizable acreage that we manage and can manage to the benefit of both our productive needs and the ecosystem's requirements.

These grasslands are among the most biologically diverse agricultural landscapes. They are an important part of the carbon ecosystem. A worldwide study by Gilmanov et al. in 2010 showed that non-forested ecosystems like grazing lands and croplands can exceed forests in net ecosystem carbon exchange. Today the importance of these remaining grass acres is escalating, as there is increasing pressure to convert the land to other agricultural and development uses.

In addition to the beneficial impact of beef production on conservation in Canada, the industry contributes about $26 billion to Canada's gross domestic product. Agriculture, especially grass-based agriculture, is part of the solution, not the problem.

There are three important areas for consideration as the development of the national conservation plan moves forward: firstly, research, knowledge transfer, and monitoring; secondly, recognition, not regulation; and thirdly, the importance of collaboration.

With regard to research, knowledge transfer, and monitoring, our effectiveness in maintaining and enhancing the sustainability of the land under our management is dependent not only on our intuition and inherent skills as land managers but also on the science that Canada's researchers have developed and must continue to develop. We recognize that the knowledge that got us here today must continue to evolve to take us effectively into the future. Continued expansion of our understanding of ecosystem functions is essential.

Many of our species are migratory and rely on healthy wintering grounds in other parts of the world. Our research studying interactions between agriculture and the environment needs to encompass both national and international perspectives. Research enables producers to make improvements to agricultural systems so that we can do a better job of profitable production while enhancing the ecosystem that we operate in.

This is especially important as land use competition increases. Improvements in productivity through applied production research and technology transfer are integral to maximizing production on the existing land base and minimizing the impact or need to disturb more environmentally sensitive landscapes.

While the use of grazing animals on a grassland landscape is essential for the ecosystem's health, we are also aware that the misuse of grazing can be detrimental to the health of the same resource. The problem isn't the tool; it's how the tool is applied. Ranchers need to be both profitable and knowledgeable to make correct management decisions.

Today's consumer is becoming increasingly aware of the attributes of the food they eat, yet the growing disconnect between consumers and food producers means that there is often a great misunderstanding of the production practices we use today. It is imperative that we measure our conservation efforts in a quantifiable manner so that we can recognize success, continually make improvement, and hopefully market these attributes to our global market.

The national conservation plan needs to take into consideration the importance of investments in research, knowledge transfer, and monitoring of these working landscapes. Financial support for these initiatives needs to be increased and needs to be long term and predictable.

We need recognition, not regulation. The conservation efforts of Canada's agriculture producers go largely unrecognized, despite the fact that prudent environmental management benefits the entire public. Continuous and vast areas of well-managed native and tamed grass are important for carbon sequestration, water quality, preservation of natural habitats, biodiversity, and grassland species. A study done on Canada's community pastures showed that the public value of this resources was pretty well equal to the direct grazing value. Currently that is not recognized on anybody's balance sheet.

Going forward, we in agriculture, as well as society as a whole, will need to develop new revenue streams for the grassland grazing ecosystem to remain competitive with other uses. If you don't value something or put a value on it, why would you expect someone to continue to provide it?

We encourage the government to explore opportunities to appropriately recognize and reward the role that land managers play in supplying environmental goods and services to the Canadian public. We would like to emphasize the fact that recognition and reward are significantly more effective in seeing positive impacts on working landscapes than are costly regulations. The regulatory approach taken by acts such as the Species at Risk Act and the Migratory Birds Convention Act place unwarranted liability on ranchers, which, in turn, acts as a disincentive to having the species on their operations. If these species are viewed as a potential liability to the rancher, they will always be at risk. We, and the bigger “we”, that is, society as a whole, need to develop ways to make these species an asset to everyone, especially the land manager.

As you begin planning for Canada's national conservation plan, we would like to stress the importance of the carrot versus the stick, as win-win programs and policies are more effective and efficient at achieving desired goals on these landscapes.

When we examine successful agricultural conservation programs, such as Cows and Fish, there is one obvious key to success, and that is collaborating with the primary land manager on the land. Finding common goals and objectives is imperative to achieving the sustainable outcomes we want. If the rancher is an integral part of the process for conservation, the success rate of the program will be much higher. This principle of collaboration is important at all levels of conservation, from grassroots programs to policy setting. As you move forward with the national conservation plan, we encourage you to collaborate with all stakeholders, work with existing successful entities and programs, and ensure that appropriate goals are set and that all stakeholders are equally invested in the goals and the desired outcomes.

In conclusion, I would like to emphasize that Canada's cattle producers are front-line stewards for the environment. It is important to support applied production research and research at the agricultural and environment interface, to develop and transfer the knowledge that will enable ranchers to continue to make positive contributions to society and to the environment, to work towards policies that reward positive contributions to the environment, and in all these activities to collaborate with the land managers who rely on the sustainability of our grassland ecosystems. Together we can continue to make positive contributions to Canadian agriculture, the Canadian environment, and our society.

Thank you for the opportunity to present to you. I look forward to your questions.

● (1420)

The Chair: Thank you, Mr. Grant.

Next, we'll hear from the Southern Alberta Land Trust Society.

Mr. Gardner, you have 10 minutes.

Mr. Alan Gardner (Executive Director, Southern Alberta Land Trust Society): Thank you.

Ladies and gentlemen of the standing committee, we appreciate the opportunity to make this submission for your consideration.

Developing a national conservation plan is a very difficult task. In the process we have a great opportunity to strengthen the foundation of Canada as a world leader in conserving the natural assets that contribute so much to our standard of living and make us an example to the world.

When talking about conservation, one would expect to hear mostly about animals, birds, fish and the importance of protecting and preserving their habitat.

We, on the other hand, are here not so much to speak about them directly, although that's why we are here and what we do. Rather, we are here to speak about people, about Canadians, for it is Canadians who will benefit from good planning, who will suffer from ineffective planning, and, in the end, who will implement whatever plan comes out of a national conservation structure and process.

I'm the executive director of a conservation lands trust, the Southern Alberta Land Trust Society, or SALTS as we call it. We protect landscapes using the conservation easement tool and supplement that activity through environmental education and research projects. We focus our conservation efforts on water, wildlife, and western heritage, that is, we protect watersheds and wildlife habitat and connectivity, and we promote good land stewardship as part of our western heritage and culture. While doing that, we have a lot of contact with a lot of landowners, especially agricultural landowners, but also with other organizations that are more environmental in nature all around southern Alberta.

I was sorry that, for example, Dr. Stelfox wasn't able to present to you this morning. We have worked with Dr. Stelfox and Lorne Fitch, whom I believe presented earlier this morning. We work with a lot of these people on a very regular basis.

We at SALTS believe in a shared landscape. Canada is a large country, and there's room for wildlife, resources extraction, agriculture, recreation, and other activities that lend themselves to a high standard of living. We also believe that the sharing of a landscape should be planned in a rational way using science and not simply driven by every person or corporation that shows up with a dollar and a dream wanting to fulfill some wish of their own.

When considering some form of national conservation planning process, we expect that the outcome will be used to drive future policy and future budget items. We also understand that to be fully effective it must apply to both public lands and, to some extent, private lands. For the latter, such policy must revolve around various incentive systems, including, for example, market-based instruments and, of course, things like conservation easements, which we're involved in under, for example, the ecological gifts program through Environment Canada.

An asset contributes to one's standard of living by providing a value stream. Like money in the bank that generates annual interest, a natural capital asset can generate a value stream in the form of ecological services and resources, for example, energy and minerals. Of these two, ecological services are the least understood and, in our opinion, the least appreciated. In fact, these two value streams can often be in conflict considering that resource extraction can damage the flow of ecological services. We would argue that an effective NCP would give these two value streams a much more relative, equal value.

We understand that the current consultation is a very preliminary one. From the questions posed it appears to be focused on developing a form of terms of reference for whatever group or process that would develop such a plan. We believe that such a process should involve communities and be as inclusive as possible. It should also be based, as I said, on science and on facts. The process should not be one of hiring a large organization and simply saying, “Here, we'll give you some money and you go ahead and develop a plan for us”—a kind of a top-down plan—but rather something that comes from the bottom up, consulting with communities and Canadians on the ground, especially landowners, agricultural organizations, as we're doing here today and environmental organizations, and so on.

With these considerations in mind, we will proceed to answer the six questions.

First, what should be the purpose of an NCP? We believe that it should be to clarify a vision, and I underline the term “vision”; define goals; set a timeframe; and then plan how to effectively allocate resources, stimulate efforts, and remove impediments to achieving the goals. To me that's, very simply, the purpose.

As for the goals of an NCP, there are seven goals that seem to make sense to us. These are very general. It seems to us that, first of all, that you need to develop a vision for Canada and various unique geographic areas. It may therefore be premature to look at specific goals; however, I will look at some. Those goals, from our point of view, are as follows.

First is the effective management and conservation of landscapes and geology that are critical to water capture, filtering, and storage.

I will talk a little bit later about our comparative advantages, and I very much believe that one of them is water and agriculture.

● (1425)

Second is wildlife habitat for the purpose of conserving and enhancing biodiversity. Third is landscapes that are important to the production of environmental and climatic services. Fourth is agricultural land that is most suitable for food production. We all understand the problem of urban sprawl and how that is, in many cases, happening on some of our best soils.

Fifth is oceans, and lentic and lotic water systems that are important to aquatic life. Sixth is landscapes suitable for outdoor recreation and education. Seventh is features that are important parts of our aesthetic and cultural heritage. From our point of view, those should be, in rough order of priority, the seven things that a national conservation plan should look at.

Now you've looked for guiding principles that we should suggest. We have twelve of them.

First of all, the long-term value of a productive and healthy natural ecosystem to the well-being of people should be recognized and protected—watersheds in particular.

The vision and wishes of the local community should be respected. This doesn't mean that you should slavishly follow that, but within some form of framework and vision for a national conservation plan, the local communities are very important. Part of that is because if you do not have the local people on side with you, the chance of achieving your goals is much less.

Third, the need of the landowner and the larger community, including industry, to use the land in order to make a reasonable living should be respected, provided it doesn't significantly damage the ability of the ecosystem to provide value to others. There needs to be some balance there. For example, feedlots are a poor use of land in a watershed. They may be appropriate in other areas, and so on.

My next point is that the signs of cumulative effects analysis on defined landscapes should be used to determine limits to specific development types in specific locations. Going back to Dr. Stelfox, he has software and a great deal of knowledge and experience in developing analyses around cumulative effects, and we believe that is very important in developing any type of national conservation plan. It does involve value in land, not necessarily in dollars but certainly in the relative value of different land parcels.

When productive and healthy ecosystems are damaged due to industrial or other activity, the developing organization should be held accountable for restoring the ecosystem under a pre-defined timeframe, and the planning for this should be done prior to the start of the project.

One of the key things here is that in many cases, of course, we know historically that , corporations and organizations often try to put off restoration to later on, and we feel it should be carried on their balance sheets as a liability. That way everybody understands this, and there is quite a strong incentive for them to actually restore the landscape as the process ensues, rather than at the tail end.

Where planning conflict occurs between industrial development and the protection of the health and productivity of natural areas, the NCP should provide clear direction on resolving a conflict. Too often, I have seen cases where, in the case of conflict between different groups, the wording and the structure gets watered down to the point almost of irrelevancy. Market-based valuation of ecosystems has a useful but limited role in making decisions when it comes to conflict between development and conservation.

A conservation planning process should respect the rights of property ownership. We've heard that before. Land trusts and conservation easements are effective and invaluable tools in implementing these kind of measures and should be supported in policy and funding, and of course that's what we do. We already have the ecological gift program, and I'm sure there are other issues in terms of market-based instruments as well.

Any conservation plan needs to set up a method of measuring those natural assets—and again, measuring these assets is something we do not do very well. We measure GDP, but we don't measure assets very well.

Last, the precautionary principle should be seriously considered when dealing with natural assets that are of critical importance.

In terms of the priorities and goals, we feel that in many ways it is almost too premature to look at priorities, as we feel they will be developed during the process of developing a national conservation plan. With that said, thank you very much for your time. I appreciate it.

Any questions would be answered.

● (1430)

The Chair: Thank you, Mr. Gardner.

Next we'll hear from the Western Canadian Wheat Growers Association, and Mr. Vandervalk.

Mr. Stephen Vandervalk (Alberta Vice-President, Western Canadian Wheat Growers Association): Good afternoon. My name is Stephen Vandervalk, and I'm the Alberta vice-president for the Western Canadian Wheat Growers Association.

I'm also the president of the Grain Growers of Canada, an umbrella farm organization representing 14 farm organizations, including the Western Canadian Wheat Growers Association. I am here today representing the wheat growers association. I also farm about an hour south of Calgary.

Thank you for this opportunity to appear before you today to speak on the development of a national conservation plan. For 42 years the wheat growers association has been a strong proponent of sustainable agriculture. In fact, it is reflected in our mission statement, which simply reads: “Our mandate is to advance the development of a profitable and sustainable agriculture industry.”

Today I will talk about how modern farm practices are improving the conservation of our soil, air, and water, and comment on the elements that the wheat growers association would like to see in a national conservation plan.

First I would like to discuss how farming practices have changed on our farm. I'd like to take you back to the 1970s and to how my dad used to farm with the tools of the day. Back then we used a chemical called Treflan to control wild oats. It had to be incorporated into the soil up to four inches deep. That meant you had to apply the chemical and then cultivate your field twice. After these operations, you had to apply fertilizer, and then seed, meaning you had to go over your land up to four times.

This excess tillage pulverized the soil and robbed it of valuable moisture, often lowering yields and leaving the soil susceptible to wind and water erosion. In my area we get very high winds. Watching your land blow or wash away is a very sickening feeling. The nutrients and topsoil that are lost often end up in our waterways, with negative downstream effects.

Thankfully those types of wasteful and erosion-prone practices are a thing of the past on our farm. Today we do not usually till the soil in the spring. Instead, we control weeds with a pass of the sprayer, and then apply seed and fertilizer in a single pass in a way that keeps disturbance of the topsoil to a minimum. These zero and minimum tillage practices have substantially reduced fuel consumption and minimized soil erosion on our farms while increasing crop yields dramatically.

The census of agriculture that was released last week confirms these trends. In the past 20 years, land seeded under zero or conservation tillage practices has gone from 31% to 81%. Less than 20% of the land is now prepared for seeding using what has traditionally been called conventional tillage practices. The result of this change in farming practices means that we burn far less fossil fuel today, and our soil organic matter in some places has increased 25% to 30%.

Another important development in the last decade or so is the widespread adoption of GPS technology in our field operations. The use of GPS has reduced our fuel consumption and reduced overlap in the application of seed, pesticides, and fertilizer.

Precision farming techniques, in which inputs are applied at various rates throughout the fields, are now also being adopted. Again, this offers the opportunity for farmers to be more judicious in their use of farm inputs and to use no more fertilizer and pesticides than are necessary to produce a good crop.

I do want to make a comment on organic agriculture. You might ask, why not cut out fertilizers and chemicals altogether? The wheat growers association respects farmers and consumers who make this choice; however, we note that it results in less food production per acre and requires increased tillage for weed control. According to crop insurance records, crop yields under organic production practices are typically one third less. That's one of the reasons why you do not see widespread adoption of organic operations in field crops. On the prairies, about 2% of farms are certified organic. We do not expect this number to change significantly, given the growing global demand for food.

It has been said that global grain demand will double by the year 2050. To meet this challenge, Canadian farmers will need to continue to be early adopters of new technology. With very little new arable land left to bring into production in the world, the only way to meet this demand is to grow more with the existing land base. We need an innovation agenda that allows us to produce more food per acre, more food per gallon of fuel, and more food with the same or less fertilizer.

To help us achieve this goal, we ask your committee to recommend that the following elements be included as part of a national conservation plan.

First, we would like a recognition that Canadian farmers have made tremendous strides in conservation practices over the last three decades, including the adoption of conservation tillage, reduced fuel consumption per acre, and better application of fertilizers and chemicals.

Second, include the fact that these practices have led to reduced soil erosion and energy consumption while at the same time increasing grain output per acre.

● (1435)

We also need a continuation of research directed toward farming practices that can allow farmers to reduce and improve the application of pesticides. In this regard, we note that prairie farmers have widely adopted the spraying technology research undertaken by Agriculture Canada. This research has improved the application of pesticides and has reduced damaging spray drift.

There needs to be an emphasis on an innovation agenda that promotes the development of new seed varieties requiring less water and nutrients. Such technology will lead to the development of drought-resistant wheat varieties. It could also lead to varieties that make better use of nutrients, which in turn would reduce the amount of fertilizers farmers need to apply, with less risk of leaching or runoff. Varieties that are more resistant to insects or disease will also reduce the need for pesticide solutions.

The Western Canadian Wheat Growers Association supports conservation programs that provide payments to farmers for ecological goods and services. The ALUS, alternative land use services, program is one such program that has been developed and appears to be having some success. It is mostly privately funded, and quite frankly, we think it should remain so. In our view, there is greater buy-in from farmers and the general public if these programs remain privately funded rather than being just another government program that might be subject to budget cuts in the future. A privately funded program is more likely to be sustainable.

One area where government could be helpful in water management is in the development of a program that would assist farmers in improving their drainage systems and on-farm water management. In recent years, we have had excess rainfall in much of the Prairies, which has led to increased soil erosion and lost nutrients due to poor drainage capability. The Western Canadian Wheat Growers Association would welcome programs that assist farmers in adopting water conservation and drainage strategies.

In summary, let me emphasize that farmers continue to be good stewards of the land and leaders in soil conservation. Changes in farming practices over the past two decades have significantly reduced soil erosion and improved organic matter. We face a significant challenge to produce more food with the same or fewer resources. Strengthening conservation programs and creating an investment climate that allows new technology to be developed will ensure that we have the tools and ability to increase our food production while continuing to be good stewards of the environment.

Thank you for your consideration of our views.

● (1440)

The Chair: Thank you, Mr. Vandervalk.

Next we will hear from the Western Stock Growers' Association. I'm not sure if it's Mr. Ward or Mr. Newton who will be making the presentation.

Dr. Bill Newton (Member, Board of Governors, Western Stock Growers' Association): Thank you, Mr. Chairman. Actually, Mr. Ward and I will share the presentation. Thank you to the committee for allowing us to make known our views.

The Western Stock Growers' Association was founded in 1896 under an enactment of the Northwest Territories some nine years before Alberta and Saskatchewan even became provinces. Our originating members were graziers primarily from the southern prairie grassland who, as we look back, were mostly concerned with ensuring a sustainable livestock industry in that natural ecosystem.

Today, our members are ranchers predominantly from that same geographic area, whose operations encompass a significant portion of western Canada's remaining native grasslands. Those grasslands are either directly owned by those ranchers or, in many cases, under long-term lease arrangements with the province or other private entities. In most instances, it's a combination of the two.

While the wolves and the mange that concerned our predecessors are somewhat less worrisome now—mange is pretty well taken care of, at least—the competing land uses faced by our founding members continue to threaten the sustainability of our industry. As we look around, there has been a tremendous amount of development of the original grasslands operated by the founders of the Western Stock Growers' Association. The land this hotel sits on was, at that time, probably a grassland. Virtually all of that development occurred because resource managers and the owners of those lands sought increased financial or marketplace returns, and growth of the population and the economy was desirable to government as well.

When considering a national conservation plan, it is critical to realize that conservation is not the result of a plan. Rather, conservation is the result of the decisions and actions of resource owners and managers who must operate their businesses in a market environment. Problems arise, however, when certain ecosystem services, such as food, are freely traded in a relatively functional marketplace, while other ecosystem services lack a functioning marketplace to drive their production and distribution.

Since the production of some ecological services, for example, corn or wheat, occurs at the expense of the production of others, for example, biodiversity, this tilted marketplace eventually drives resource managers to decisions favouring profitable environmental service products.

Additionally, as the supply of ES products shifts over time with the favouring of the profitable ones, and as demand for certain ecosystem service products changes with increasing population and increasing standards of living, some of those products that were once abundant become scarce. This situation in fact likely provides some of the impetus for a national conservation plan.

What the Western Stock Growers' Association wants to emphasize, and what I think we all must acknowledge, is how effective the marketplace can be in allocating scare resources and balancing supply with demand. Too often, in our opinion, governments interfere in what could be a functioning marketplace for ecosystem services.

Throughout our history the Stock Growers have been strong advocates of contractual and property rights and sustainable, market-driven production practices. In the 1890s we lobbied on the federal grazing lease issues and somewhat illegitimate trade barriers that at the time mainly Britain had, as well as on predator control and disease issues.

When Eugene Whelan was the Minister of Agriculture, we were successful in lobbying against his proposed supply-managed system for beef cattle. More recently we've been heavily engaged in the beef industry recovery post-BSE and the Alberta land-use framework process. All of this is in accordance with our motto “The Voice of Free Market Environmentalists Since 1896”.

Interestingly, as we look back, the Canadian federal decision to assign grazing leases back in the 1880s—leases with certain property and contractual rights as a mechanism to settle and hold claim to the west—resulted in a far more positive outcome for those grasslands than was the case just across the 49th parallel in the United States where a free-range policy was adopted. Theirs, in many ways, was the classic tragedy of the commons.

Norm.

● (1445)

Mr. Norman Ward (Member, Board of Governors, Western Stock Growers' Association): Good afternoon, everyone.

In the late nineties, Western Stock Growers' Association and Alberta's Land and Resource Partnership met with the standing committee studying species at risk, and I was one of those fortunate enough to be a witness to that standing committee. A common concern at that time to all the resource users we represented included the lack of compensation with regard to species at risk. This very issue continues to generate significant problems as it relates to not only the recovery of species at risk but also the management of the lands in those recovery areas.

I bring this forward today as it relates directly to the potential elements of the national conservation program. SARA failed to recognize and address the whole, which takes into account three broad areas that must be united into a symbiotic relationship. These basic principles are the environment goals, the goals of the public or society, and the financial goals, which must provide the necessary capital to sustain the environmental and societal goals.

It is important to note that SARA narrowly focused on species at risk, often at the peril of other living organisms in the same ecosystem. This lack of focus on the whole—or to put it another way, this linear response to a complex ecological system—has continued to create problems that we hope will be addressed in the new national conservation plan.

Further, the lack of financial goals associated with SARA resulted in property owners taking all, or a significant portion, of the financial burden on behalf of Canadians.

It is imperative that the national conservation program address all factors within the greater whole, addressing societal, environmental, and financial goals.

The purpose of the national conservation program will be to identify the whole and to help in the development of the environmental and social goals. These will be very broad at a Canadian level, but as we drill down, we will ultimately end up with more defined wholes associated with air, land, and water features, as well as flora and fauna. At this level it is imperative to focus on a three-part goal with the inclusion of all stakeholders in the region.

This is usually a difficult exercise for governments that are defined by their very linear and centralist approach to problem solving. Again, we must emphasize the need for a non-linear response to the management of a complex ecosystem.

Land goals must be developed with a view toward a functioning water, mineral, and solar cycle.

When it comes to societal goals, a healthy, complex, functioning ecosystem has a benefit for all Canadians. Water storage, carbon sequestration, habitat for endangered flora and fauna, viewscape, recreational opportunities, and ecologically sustainable business opportunities are but a few benefits.

With regard to the financial aspect, the lack of a clear understanding of how financial goals provide for the capital required to sustain the environmental and social goals continues to result in reduced success for many conservation programs. Western Stock Growers' Association firmly believes that a market-driven system for environmental goods and services in combination with government guidelines for the environment is the appropriate mechanism to fulfill a conservation program.

By linking wealth to good stewardship, a large number of land managers are able to generate a multitude of solutions. Since there are many varied mini ecosystems within the greater ecosystem whole, it is imperative that each land manager be able to respond to time and place specific information. We believe this is best handled in the marketplace.

● (1450)

The Chair: Are you finished?

Dr. Bill Newton: No, we'll go on to talk about the guiding principles we believe should be in place for a national conservation plan.

First of all, we think it's very, very important that a national conservation plan use a three-part decision-making process to determine its goals, something that balances environmental, social, and financial outcomes.

We also believe it will be critical to have a non-linear or holistic response to the conservation of a complex functioning ecosystem. These are very dynamic and complex systems, and a linear approach will not be successful.

We're somewhat familiar with the calculation of cumulative effects. One type of land use has some impact and another type has additional ones. Eventually those all add up, but they haven't all been taken into consideration when we determine whether we should have all of these various land uses. We think that calculating cumulative effects provides the baseline information, which then must be used to balance the three-part goal with all of the elements of the whole.

The Chair: Unfortunately, your time has expired.

Do we have Mr. Zimmerling or anyone from the Alberta Conservation Association? Is Mr. Zimmerling here with us? Okay.

We will now move on to questions. Ten minutes go by very quickly. I'm sure you have more to say, and opportunities will be provided to you as we ask you questions.

I want to introduce you to the members of the Standing Committee on Environment and Sustainable Development. We have Monsieur Pilon and Monsieur Choquette from the beautiful province of Quebec. They are members of the official opposition. We welcome them. Mr. Lunney and Mr. Toet are members of Parliament from British Columbia and Manitoba. They are members of the government, as am I. There are 12 members. Today, five or six of us will be asking questions.

We will begin with a seven-minute round by Mr. Toet.

Mr. Lawrence Toet: Thank you, Mr. Chair, and if you think 10 minutes goes by fast, seven minutes goes by really fast.

Mr. Grant, you talked about grazing being essential to biodiversity. You talked about grass-based grazing as being part of the solution. You touched on that very quickly, and I'm hoping you can expand on that for us. Could you explain how that works and why it is such an important aspect of conservation?

Mr. Lynn Grant: The prairie grasses or native grasslands evolved with major grazers. They co-evolved and one relies on the other. A major ruminant, which most grazers are—that is, bison, cattle, and sheep—are effectively nutrient cyclers. They take grass, which is non-usable to a lot of the other species that occupy the grassland ecosystem, and they convert it to manure, which insects feed on. Then songbirds feed on the insects. It's a whole dynamic process. If you take one element, namely, the major grazer out of it, you simplify the ecosystem and you don't have a highly functioning biological ecosystem.

Bison, and a bunch of other factors, filled that role naturally on the North American great plains. We domesticated livestock in Europe and brought them over here. They provide the revenue stream currently that we get off the grasslands. The other byproducts, which are some of the ecological goods and services that some of the other people mentioned, don't provide some of that same revenue stream.

Grasslands National Park found out that you can't have a functioning grassland ecosystem without a major grazer. They have bison on one part of it, and they have cattle on the other part. Cattle are more controllable than bison. We have to evolve our science to evolve that. We have had very little science on major ecosystems, and that is my emphasis on research, which is that it's government's role to assist in providing that research capability for everybody's benefit .

● (1455)

Mr. Lawrence Toet: Right.

However, we are seeing some of these things coming through from the research, as in the example you used—that this was truly shown to be a required element in the grasslands.

Mr. Lynn Grant: If I could also mention, in agriculture and especially in a grass-based agricultural production system, we can have our cake and eat it too. We can have the financial returns, and if done properly, we can enhance the ecosystem, the conservation, and the biodiversity of that same resource. They are not exclusive; they are inclusive.

Mr. Lawrence Toet: Your example of the grasslands states that pretty clearly, that the two can work together hand-in-hand.

One of the things that we've seen a lot as we've gone through the process here is stewardship. We acknowledge that there's a lot of great conservation that has happened, whether by the beef producers or the cattle...or the farms. We understand that you are naturally stewards of the land, and that you see that as part of what you're doing. I also see, and I think it has come through in a lot of our testimony today, that the long-term sustainability of your work requires that attitude and approach.

One of the comments made by the Alberta Beef Producers was about recognizing the conservation that has been done already. Could you share with us an example of that? How could those activities be reflected in a wider NCP strategy moving across Canada, and what should the priorities be as we go forward in that? Could you share some of those activities that you've undertaken to date and the core aspects of them?

Mr. Doug Sawyer: They vary regionally and from farm to farm. In my area, we're in the hills and sloughs area, where many of the producers in the seventies broke land up and drained the sloughs in order to grow crops on them. Other producers chose not to. They realized the ecological value of the grassland, and the difficulty was going to be to grow grain. So they left their waterways and their sloughs and their wetlands intact.

Today the guys who broke it up are able to benefit and get paid to put it back in, but there's no recognition of the producers that left it in from the beginning. That's one example of these types of issues.

Certainly, as you've heard across the table here today, we don't get recognition for any of the ongoing processes that our parents, our grandparents and, personally, my great-grandparents started in order to keep that land in production, as well as an ecologically viable environment—for perpetuity, I hope, as I have two kids coming into the farm now.

As we have worked in that ecological system, those who have chosen to keep it natural and make a living off of it haven't gotten the same recognition as those who actually broke it up, did something different, and then came back and are now getting financial benefits for that.

● (1500)

Mr. Lawrence Toet: That's fair enough.

I just had one other question.

We've talked quite a bit about innovation and some of the different innovations. Mr. Vandervalk, you talked about the innovations that have occurred in farming over the last 20 years and the need for advancements of those innovations.

Do you see that as being part of an NCP or just as part of the recognition process or the enhancements to that? How do you see that working into an NCP?

Mr. Stephen Vandervalk: To be profitable now, you have to have your land. It has to be healthy. The returns have to be there. That means bigger crops and higher yields, and to do that you have to have healthy soil. We are naturally going that way and are farming it differently to make sure that the ground is better next year than it was this year.

I think maybe programs that would help farmers go in that direction, maybe education, would be good, because I think we're going to go there financially on our own. Other people have said, too, that everything has to be based on sound science so that there is a benchmark. There's no going all over the place; it has to be based on certain criteria.

The Chair: Thank you. Your time has expired.

Now we have Monsieur Choquette for seven minutes.

[*Translation*]

Mr. François Choquette: Thank you very much, Mr. Chair.

I would like to thank the witnesses joining us today. It's a full day, that's for sure. We've heard from a number of extremely relevant witnesses. It's always beneficial to learn how people at the local level are involved in nature conservation and the environment. That is essential for you, since your livelihood depends on a rich natural space where the environment is respected and preserved.

I have some questions for Bill Newton and Norman Ward.

You started talking about the significance of cumulative effects. We've had an opportunity to hear from numerous witnesses, and many of them talked about those effects. I, myself, sincerely hope that the significant role of cumulative effects will be addressed in the report our committee produces in the coming weeks.

A single project in a particular area may not have much of an impact, but 20,000 projects in the same area could have some rather serious effects. What would you recommend as far as a special focus on cumulative effects goes?

[*English*]

Mr. Norman Ward: Thank you for the question.

I think we need to go back and define what cumulative effects are. If we look at all of the effects on the ecosystem, we need to be very careful that we don't start to slot those or put them into silos. We may have cumulative effects for agriculture. We may have another set of cumulative effects for the oil and gas industry, and we may have another set of cumulative effects for a subdivision around a city. The challenge for government will be balancing those cumulative effects. In many cases, we see government, through societal goals, saying that they want to have a subdivision all the way around the city, and they start to look at the cumulative effects of that issue only.

We're saying we need to balance all of those. So we would look at the environmental, social, and financial, but all of those have a cumulative effect. An example may be—and Mr. Grant brought it up—where we have a grasslands park that didn't have a grazer in the park. That would be looking at a social, cumulative effect where it's as if we want to narrowly focus on that. Instead we should have balanced that social goal with the environmental and the financial, and built in all those cumulative effects together—quite a different concept.

Another example would be the development of oil and gas in northeastern Alberta, where government has focused very narrowly on cumulative effect with regard to the oil and gas sector, at the absence sometimes of environmental goals within the area. Again, we need to balance all of that.

● (1505)

[*Translation*]

Mr. François Choquette: Thank you for your comments. I agree with you entirely. That's something we have heard repeatedly during our hearings. Witnesses have highlighted the importance of taking cumulative effects into account. You added another key element, that of a more comprehensive approach, more ecosystem-based, more holistic. Other witnesses discussed that as well. You may have been the one who mentioned the importance of a holistic approach. The day before yesterday and a few weeks ago, other witnesses stressed that same point. Our national conservation plan must not disregard that aspect.

Could you elaborate on your recommendation for a national conservation plan? At the federal level, how should we develop such an approach, that is to say, more ecosystem-based, more holistic, and, if I recall correctly, more dynamic, as you put it? Could you sum up your recommendation for the committee?

[*English*]

Dr. Bill Newton: The term likely was less linear or more holistic, because these are dynamic, complex systems, and you can't pick out a single objective or goal and pursue it at the expense of others.

In terms of the federal government approaching this plan on an ecosystem basis, I think it comes back to how you make your decisions and incorporating the fact that they all have to balance—the social, environmental, and economic. So if the housewife in downtown Calgary thinks it's important to protect a certain species, that requires someone to forgo opportunity on their operations and their businesses. That same person needs to recognize that there will be a cost to them associated with that, so we don't have people making decisions and requests, thinking that it comes from nowhere or from government. In the end, we all have to pay for the decisions we make, and we all have to live within our means.

So I think one of the major challenges of a national conservation plan is to inform and educate all our consumers of ecosystem services that it isn't free. Carbon storage is not free. Water capture and retention is not free. Air quality is not free. Certainly to date we haven't had a marketplace for them, and they have been provided as a side benefit of other production systems, but as we continue to shift our ecosystem service supply and demand, we think we likely will have to come to a marketplace for those other services.

The Chair: Thank you very much.

Just for the benefit of the witnesses, when I am giving this baseball signal it means your time is up. You can finish your thought. You don't have to stop immediately, but time has expired.

Next we'll hear from Mr. Lunney. You have seven minutes.

● (1510)

Mr. James Lunney: Thank you, Mr. Chair.

Thank you to all the witnesses for their contributions so far.

You've all said so many interesting things. There are questions across the board here, but I'll just start with Mr. Sawyer.

You made a remark about wetlands and sloughs—I think you called them—and keeping land productive. There are ways, as we hear from other witnesses, to actually enhance or protect biodiversity in those sensitive areas on your land and still increase the productivity of your land.

Do organizations share best practices? I did hear you say there's a lack of recognition for those who have protected sensitive areas from the beginning, as opposed to those who are now recovering and getting some help and compensation for that.

What kinds of best practices are being shared? Maybe others would like to comment on that as well.

Mr. Doug Sawyer: Certainly all of our organizations collectively work towards that in terms of our extension and our outreach programs to producers. As producers see successes or new research becomes available to show the benefits, we try to get that out as quickly and as effectively as we can.

As we were saying, often in our previous practices or our ongoing practices we've done something that we felt was in the best interests of either our business or the land, and then we have come to realize that there's a better method. Generally speaking, in terms of the ranchland in particular, what's good for the ecosystem on the land is what makes me profitable and sustainable, and that's where I was going with that.

In terms of my land, it's the balance I keep on my land that gets me through some of the droughts, some of the tougher times, and also provides a variety of grass that is at its peak nutrition throughout the entire year. It's maintaining that natural balance that keeps me sustainable and makes me actually profitable. So I have the balance of wetland, by our choice, as a family over the years, because we need that, and we need a certain amount of bush land, and we need a certain amount of open land.

Mr. James Lunney: I appreciate your raising that point. It's a valid observation. Some people, some farms, and especially families have maintained effective stewardship over generations, and have maybe not been recognized for that.

Mr. Grant, you made a comment about having your cake and eating it too. You did give a very valid description, I think, of how grazers leave their deposits, which encourages insect growth, which attracts songbirds, and how the cycle works. We understand, even though most of us in this circle aren't farmers. Some of our other members actually have very strong rural roots and would be very glad to engage in this discussion, but for others of us, we appreciate hearing how this works.

I think the fact that grazing and cattle production are actually good for the ecosystem is not well appreciated or understood. We have a communication challenge here, and I think all of the organizations would maybe want to be helping us understand how we can engage the urban population, who by and large may not appreciate those aspects. How do we address that in a communications strategy?

Have you made some attempt to connect with the generation that doesn't have the experience of growing up in a rural setting, to engage with them about ranchlands, to give them a chance to actually see and learn? Collectively, all of you ranchers here are busy on your own land trying to generate a profit, but somewhere among you there must be someone who could take that on for the group, to engage the urban population with some demonstration projects to actually show off what you are doing to improve the environment.

Mr. Lynn Grant: Well, we all do it with our limited resources. We try to address that education process. Something we would need provincial governments to do—because education is very jurisdictional—is to get examples of that kind of stewardship into their readers and school programs, so it would become common knowledge as people grow up with it.

The other thing that we and the bigger society need to do, and this process is part of that, is to create a culture—and culture is what we believe as a society—of conservation that we haven't had before. In our history, it's really mostly in the last maybe 50 years that we've created enough technology to have the capability of doing some very significant harm to ecosystems in a very short time. Our thinking—and not just industry's but all of society's—has not caught up with that technological capability. Just as the medical community has problems with ethics concerning what they should do with some of the technology they have for keeping people alive, in the same way the thinking of society has not kept up with our technological capability to do some pretty significant harm.

But as Mr. Vandervalk said, advances in technology and understanding are now enabling us to do a better job of enhancing the ecosystem while we maintain food production and productivity, energy production, that sort of thing. So we all need to develop the ability to do that outreach and fit that in, because as a society, if you lose the connection to where your food comes from and how it gets to you, you lose the ability to make the system function effectively, and you elected people, especially, then have to cater to voters who do not properly understand the issues.

That's a real challenge for you guys, because you not only have to be politicians, but I would hope that each and every one of you would think of yourself as a statesman to do the right thing, for the resource and for the people, and not just to respond to uninformed political pressure to get re-elected.

The Chair: Next is Ms. Fry, for seven minutes.

● (1515)

Hon. Hedy Fry (Vancouver Centre, Lib.): Thank you very much, Mr. Chair.

I want to thank everyone. I also want to apologize for having to run out of the room; something is breaking in Vancouver, and I had to talk to the media about it.

I've been following this for three days now, and I must say I'm impressed by what I'm hearing from everyone. There seems to be an understanding of the holistic nature and the interrelationship of everything. I think the debate publicly has always been either/or—it has be this, at the cost of that—and not understanding all of the ways in which everything is interwoven. So I'm glad to hear you saying that, because it really does help.

I'm pleased to hear everyone talking about science and measurements and monitoring. You know, as the great Yogi Berra used to say, if you don't know where you're going, how are you going to know when you get there? The bottom line is that we need to monitor, we need to measure, and we need to set clear goals and clear targets. So I'm pleased to hear all that.

I just want to ask some straightforward questions. First, you talked about forms of compensation for people who are conserving on their own lands. I know that the ecological gifts program, which came in around 2004, looked at major land trusts that were donated by people who had a lot of money. What about the ordinary farmer who wants to do this kind of conservative farming, who makes sure that he conserves and does all of those things? How do you compensate them for that? Can you give me some really practical and concrete ways in which that kind of compensation can occur so that there can be ongoing stewardship?

Secondly, you talked about restoring a damaged ecosystem in a defined timeframe. How do you see that being measured, and what are the ways in which you can see penalties or other things being imposed if people don't do it in the defined timeframe?

Finally, you talked about measuring your natural assets. I think the precautionary principle in medicine we all agree with, and you're saying the same thing here, which is true. But you talked about measuring your natural assets. How do you do that, and what are the measurement instruments and indicators you would apply to measure that?

So those are my three basic questions.

I think it was you, Mr. Smith, who talked about forms of compensation. How do you see that occurring?

Mr. Rich Smith: You identified a very real challenge, in that there are often large-scale and specific initiatives that provide compensation for conservation. What we have generally lacked is a comprehensive system that provides compensation to a large number of what you suggest would be smaller-scale landowners, and a system that would work not in an either/or situation where you have a choice between production and conservation. We haven't had a comprehensive system that would provide compensation for conservation that was done in a complementary manner to agricultural production. There's a very real challenge for that.

Mr. Newton and Mr. Ward identified that society thinks that these benefits are free. Society doesn't realize there is a cost to them. We haven't established the kind of system that would work to make that happen.

● (1520)

Hon. Hedy Fry: What are the elements you see in that kind of system? Obviously, refundable tax credits would be one. The ecological gifts program looks at capital gains. What are the other ones you see?

Mr. Rich Smith: Because these are societal benefits, we need to find a way to engage society in paying for these benefits. That would take both the ability to measure, and that's a complex scientific challenge but one that's not insurmountable, combined with a framework of policy, markets, and a system that would engage society. For now, society hasn't been engaged in paying for these benefits. That would be an important step that I would see.

Hon. Hedy Fry: I think it was Mr. Gardner who talked about restoring an ecosystem if you have damaged it and restoring it within a defined timeframe. What do you see the defined timeframe as being?

Mr. Alan Gardner: That is a good question. Thank you very much for that.

There were three questions, I believe. If you wish, I can deal with all of them to some extent.

One question is the compensation for ecological services. We see this all the time. For example, there was a large corporation that was saying that it could buy huge amounts of land in Australia that had been totally ruined, and it could get credit to restore that land. We see that kind of thing all the time. There's a lot of money from government as well as corporations to be able to do that.

However, we also work in southern Alberta with a lot of stewards, as has been talked about, for example, by Mr. Sawyer, where we have good stewardship for what we call a good land ethic already. Yet when we as a land trust ask how we reward the people who have done a good job, we find that everybody says “Not us. We don't want to do that. We don't have any money for that.” It's a very real problem.

We have actually as a land trust developed a protocol for being able to do that. It touches on some of your other questions. One is the restoring, for example, in a defined timeframe. We all know that corporations and people who dig up the land, a gravel pit, the tar sands, an open pit mine, or whatever it may be, would prefer to put off restoration until the last minute, because in a sense, they are not carrying it on their balance sheet. They can say to their shareholders, “Look at the profit we're making.” That's perfectly fine, but if you want them to restore on a timely basis, that is, to restore as they go, especially in large-scale circumstances, then the best thing to do is to make them carry that liability of restoration on their balance sheet. Then their own shareholders and their accountants will be pushing them to get this stuff restored, because then they could get it off the liability side of their asset or balance sheet.

That would be a very good thing to look at within a national conservation plan as to how to do that. We will be extracting resources. The question is not whether we will, but how we restore afterwards.

Hon. Hedy Fry: Absolutely.

Mr. Alan Gardner: Your last question was a very good one.

We do a very poor job of measuring assets, as you pointed out. We measure GDP, and so on. Really, when you look at things, this is our income statement, if you like—how much money we are moving around the economy. We don't do a very good job of measuring the assets. As I indicated, when you have a house or another asset, that's the kind of thing that provides you with an ongoing value stream, which improves your standard of living. We really do a very poor job of measuring what happens when we extract resources, whether they are renewable or non-renewable resources, out of the landscape, and how we measure whether or not we're maintaining the asset value. It goes back to the question of stewardship. When somebody does a poor job of stewardship, then really, the asset level goes down. Multi-generational ranchers know this.

Anyway, going back to the land trust idea, this is something we have solutions for.

The Chair: Your time has expired. Thank you.

Monsieur Pilon.

● (1525)

[*Translation*]

Mr. François Pilon: Thank you, Mr. Chair.

I will continue with Mr. Gardner.

Generally speaking, do your ranchers have a good perception of your organization?

[*English*]

Mr. Alan Gardner: Yes. As a matter of fact, we have a number of ranchers on our board, actually more than half of the members. We have worked continuously since 1998, when we got going with the ranching family. I would say we are very well perceived by ranchers; in fact, they are our best friends in many cases. We understand their concerns and how to help them.

[*Translation*]

Mr. François Pilon: Should the plan target specific areas, or, as many seemed to say, focus more on the ecosystem?

[*English*]

Mr. Alan Gardner: In my submission I suggested seven aspects in relative priority. It's very much a holistic approach to things. When I say holistic, we have to be careful we don't get mired in superficialities. We have to go back to the science of things. This is where the work of Dr. Stelfox is really important in terms of cumulative effects and such. Yes, we do need a holistic approach to things.

[*Translation*]

Mr. François Pilon: To wrap up, you said in your presentation that it was important to provide for reclamation, restoring the land after it's been used. If something occurs during development, should the plan set out a method, something requiring that immediate action be taken to rectify any damage caused, given that it was not taken into account?

[*English*]

Mr. Alan Gardner: I think that time always makes changes as such. However, as Ms. Fry indicated, if you don't have a plan at the beginning, who knows how you're going to get there, or what happens when you actually get there.

It is very critical that some sort of restoration plan be in place at the beginning of a project. It may change as time goes on, but if you can have a plan upfront, at least everybody is aware of how it may happen. As I indicated, if it's on the balance sheet, there is a much greater incentive to restore as you go along, rather than wait until the last minute and then hopefully they will do it. Also, historically we know that in some cases, if the company runs into financial problems at the last minute, sometimes the restoration falls back on the public purse.

[*Translation*]

Mr. François Pilon: My next question is for Mr. Vandervalk.

You mentioned a new labour-free planting method, saying that 80% of farmers used it. Why aren't the other 20% on board?

[*English*]

Mr. Stephen Vandervalk: There could be numerous reasons. It could be the environment where they farmed. With the soil in certain parts of southern Manitoba, they have to conventionally till before they can seed. That's part of it. Some of it's education, not believing that going to what we call a one pass system is a financial benefit for their farm. There's some of that. Of the 20%, it's because of the environment, how their land is. If it's a certain type of clay-based land, or if their land floods, or if it's a very wet area, they have to conventional till to dry the soil to be able to seed. The majority of it would be for that reason.

[*Translation*]

Mr. François Pilon: You also said that only a very small number of farmers were going the organic route, because it was not profitable enough. If the science were to one day make organic farming profitable, do you think farmers would turn green?

[*English*]

Mr. Stephen Vandervalk: Oh boy, that's loaded. As for the "green turn", I would definitely argue that farming organically is not necessarily greener whatsoever. In fact, you could argue the other way in many cases, that it's not as environmentally sustainable as regular farming is. Farming organically is profitable. I wasn't trying to say that. A choice is being made. You get more value for your product in many cases, so lower yielding sometimes makes up for that.

As you said, unless technology gets to a point where organic farming can produce the same yield as conventional farming, it's going to be very difficult, because we are at this point.... And in the future it's going to get worse. We have a hard enough time feeding the world as it is. When you're losing 30% to 40% of your yield, that doesn't help trying to feed nine billion people. I think if technology changes you'll see people going in and out of it, and it's something that has to be based on financial considerations for your farm.

● (1530)

The Chair: Thank you.

Mr. Toet.

Mr. Lawrence Toet: Thank you, Mr. Chair.

One of the things we've heard a lot about throughout the testimony is the need for connecting Canadians. In this regard, I'm going to talk more to the agricultural sector.

Mr. Grant, you even touched on it a little bit when you said there's a growing disconnect between consumers and producers, and we need to address that. What are your thoughts and ideas on how we can foster that greater connectivity? Have you given any thought to how we can incorporate that into an NCP as part of the education aspect, particularly in regard to that disconnect between consumer and producer?

Mr. Lynn Grant: It's not particularly my field, but I do have some thoughts on it, not specifically with regard to a national conservation program, but just general comments.

One comment is that as a society we need to make sure we talk directly to any issue. I'm thinking of some of the so-called polite terminology that we use when we talk to our kids and relatives about grandma dying. I mean, she died. She's dead. We say she passed away. We use all this polite terminology to gloss over the reality. When we do that, we also hide the reality, and we also fail to make people, especially our kids, understand an issue like death. I use that one because it just covers everybody.

In our industry we have slaughterhouses, and they are just that: we kill animals to process them into food. We don't use the proper terminology, so that generally disconnected society gets very uptight and nervous when they understand that these animals are dying for food production.

By the way, when you pull a radish out of the ground, how long do you think that little sucker lives before he's technically dead too? That's just the way nature is. That's how we are when we die, except that we embalm ourselves so that the bugs can't live on us. Essentially that's it. When we use poor terminology and gloss over reality, that's what happens. As a society, we need to make sure that the public, which isn't aware of where its food comes from, at least knows the correct terminology and what really happens.

To get the connection back, we all, especially producers, need to take a more vested interest. We need to incorporate it into a school program and just use those examples.

I'm taking up your time.

Mr. Lawrence Toet: Mr. Vandervalk, can you add to that? You looked as though you wanted to say a piece on that.

Mr. Stephen Vandervalk: Yes. I'm on a board of directors for something called Agriculture for Life. It's made up of a couple of farmers and oil companies, power companies, and farm companies, and its mandate is to teach schoolchildren especially what's involved in farming.

When you ask students where bread comes from, a lot of them say "Safeway". They have no idea. We get them onto the farm, show them the technology, show them how farming has changed, how it's actually kind of cool. You don't steer the tractor. You don't do much any more. It's all done with a lot of high technology. There are school programs and stuff. Part of a plan could include getting more education on where the food comes from and on how rural life isn't a simple backwoods type of way to live but is actually a business—and a great business.

Mr. Lawrence Toet: Ms. Jackson, I think you wanted to jump in too.

● (1535)

Ms. Fawn Jackson (Manager, Environmental Affairs, Canadian Cattlemen's Association): At CCA we're very aware of the growing disconnect between consumers and producers. A lot of what we do today is we invest in our own youth. How can we leverage them to help spread our message? They have such large networks in terms of social media, Facebook, Twitter, and all these sorts of things. How can we ensure they have the tools to spread our message? That's one of the ways we focus on connecting the consumer to the producer. That is one of the areas we need to focus on in a national conservation plan: how to ensure that young people come back into the agriculture community.

Mr. Lawrence Toet: Thank you.

Do I have any time?

The Chair: Mr. Ward wanted to make a quick comment.

Mr. Norman Ward: Thank you.

I'll address that question and Ms. Fry's question at the same time.

Western Stock Growers' Association brought up the concept of a marketplace for environmental goods and services. One of the best ways to connect people is to connect a consumer to someone who produces a product. We've glossed over the opportunity to provide compensation to people through the marketplace. We truly think that an environmental services marketplace will provide some of the necessary help and impetus to a national conservation plan.

Here in Alberta, the Alberta Land Stewardship Act recently passed. There is a provision in the legislation for a marketplace for environmental goods and services.

Again, by linking those customers, we are able to start to bring that information forward to them.

The Chair: Thank you.

Monsieur Choquette.

[*Translation*]

Mr. François Choquette: Thank you, Mr. Chair.

I want to come back to Mr. Gardner.

I wrote down the seven-point vision you recommended. I believe the third point pertains to climate change. Is that right, or did I just misunderstand?

[*English*]

Mr. Alan Gardner: No, there is a fair amount of science that suggests that climate change may be occurring. Why is up in the air, but certainly that is true. I would say that from an economic standpoint Canada has a comparative advantage around the world in a number of ways. One is our ability to have agriculture. We have good soil, so far. Also, we have adequate water, so far, for the most part.

If you look at some of the literature and books that talk about food production around the world, the fact is that, other than resource extraction, which I know the federal government is focused on right now in terms of energy, food production and our ability to provide it through the availability of water is absolutely critical. It could mean the difference in the next many decades of Canada being a powerhouse, if you like, in food production, which of course would add to our standard of living.

Does that answer your question?

[*Translation*]

Mr. François Choquette: Yes, thank you very much. I agree with you that we need an approach that is not solely based on natural resources. It must also take other factors into account, such as the very crucial arena of agriculture.

You also mentioned urban sprawl. That was the fourth point of your vision, I believe. Urban sprawl is a massive problem, both in Alberta as well as in Quebec. In the area surrounding Montreal and Drummondville, there is tremendous uncontrolled urban development happening. A ban is even being proposed to stop rezoning, because farm land is being used for urban development projects and big box stores.

What do you recommend in terms of controlling urban sprawl and protecting our best farm land?

[*English*]

Mr. Alan Gardner: That's a very good question, and a very difficult solution, as we all know.

Having spent 15 years as an architect in Canada, and at various times having lived and worked in Montreal, Toronto, Vancouver, Calgary, Edmonton, and so on, I understand urban sprawl very well. Our cities are still based on a model developed in the 1950s in Los Angeles. Calgary is one of the very best examples of that. We're still building roads and highways, and, as normal, we happen to be doing that on some of the best agricultural land, not just in Canada but in the world.

I would suggest this goes back to cumulative effects. When you talk about cumulative effects, the key thing in my experience working with Dr. Stelfox is that ultimately you have to put limits on where things go. If you look at Europe, for example, Germany, England, or some of the places that have a much greater population than we do, they have resolved some of that. One of the solutions is the conservation easement solution that we use, which is that we can, through incentives to private landowners, ensure that good agricultural land even close to cities is maintained in agriculture.

I would say that is one of the very best tools. I would like that better, because in a sense it is a market mechanism using incentives rather than regulation, as has sometimes been tried out. I believe Toronto tried a green ring or zone around the city. It has not been that effective.

● (1540)

The Chair: You have five seconds.

[*Translation*]

Mr. François Choquette: I want to thank you for your great answers and your time.

I will now hand the floor over to someone else.

[*English*]

The Chair: Thank you, Mr. Choquette.

Mr. Lunney, you have five minutes.

Mr. James Lunney: I think it was Mr. Newton who was a DVM for many years before taking on the cattle persona in a latter career. Mr. Ward, it was one or the other or both of you who made the point about a non-linear response. I think what you're asking for is flexibility.

You made remarks about many and varied mini-ecosystems. Indeed, we're not only talking about Alberta here. We're talking about all of Canada, the variety. The committee will be travelling to the east coast in the near future, where the issues will be very different from the ones here, although there will be commonalities.

When you talk about a non-linear response, I think you're talking about flexibility. Earlier, one of the presenters said that a national conservation plan implies some form of rigidity, and preferred the concept of a national conservation framework, where the objectives may be common but the applications may be different, allowing people to choose from a suite of environmental objectives that may apply in one environment and not in another. Is that really what you're driving at with your non-linear approach?

Mr. Norman Ward: It would be in part. I think we need to realize that as we drill down into these smaller holes, you will find that we need people on the ground. I'm speaking from a rancher's perspective now. We will need those people on the ground who are able to make those decisions in a complex ecosystem.

For instance, on broad conservation plans maybe by non-government organizations, we see a very high level of planning, but a lack of detail that needs to happen on the ground somewhat. We need to be able to involve all of those people on the landscape so that they're not excluded but they're also able to make those pertinent ecological decisions as they happen. Too often in larger environmental groups it's very hard to make those complex decisions. We need to be able to have those people on the ground to do that.

Again, I'm speaking from a rancher's perspective, because I am on the ground and I am able to make some of those decisions when it's necessary.

Mr. James Lunney: Okay. Was it you or someone else, maybe Stephen Vandervalk, who made a remark that privately funded compensation is more likely to be successful? Maybe you'd both care to comment on that.

Stephen Vandervalk, was that you who made a remark like that, and could you expand on what you envisage by that?

Mr. Stephen Vandervalk: It's coming from the marketplace and therefore it's usually going to be profitable for both parties involved. That's far more sustainable than a program that's just paying somebody to do something from a government that may disappear in the future and then it just goes back to the way it was, because it's not profitable or it's not something that both parties really wanted to do.

I think it's kind of like Ducks Unlimited and Bayer CropScience, who formed a partnership to get farmers to grow more winter wheat. So they try to educate and try to help financially to get people to grow winter wheat, and they try to show them that it is a good fit for their farm and that it makes them more money and also allows more eggs to survive in the springtime. Something like that is far more sustainable than having the government come in and say it is going to pay someone to do something and then it's gone and we say actually it didn't really help us out that much anyway, so we go back to doing what we were going to do. I would say that's why.

Mr. James Lunney: I appreciate that. It was in 2007 when the government invested some $225 million, which groups like Ducks Unlimited and Nature Conservancy and others leveraged by a factor of three, if I understand it, to be able to engage with landowners and advance many of those objectives. But that process is still playing out from 2007.

I think, Mr. Vandervalk, it was also you who made some remarks about the tremendous changes in agriculture from where it was a number of years ago. Technology has changed considerably, and there are advances. You mentioned the tillage, GPS minimizing overlap and so on, minimal use of pesticides and herbicides. That all saves you money, so best practices is certainly an advantage to everybody.

You mentioned that we need more research on best practices and drought-resistant crops. I think I heard a comment that we needed help with drainage solutions, for example. Would you expand on that comment?

Mr. Stephen Vandervalk: Sure.

I've been fortunate enough to travel around the world, and I've seen what farmers around the world want as far as new genetics go, and it's fairly consistent: drought tolerance, greater yield with fewer nutrients. That's something that is very sustainable going forward if we can have more of that research to allow us to have that technology, that seed technology. If you put it all in the seed you need less pesticide and fewer inputs in the future. It starts right from the seed, so it's very important to have that innovation.

The Chair: Thank you.

I want to thank the witnesses for being here.

Just before we close, Mr. Vandervalk, could you just elaborate a little bit on the no-till policy? I'm trying to get my head around it. Not tilling is a new activity. The seeds are dispersed on the soil and they take root without having—

Mr. Stephen Vandervalk: No, no. There are a couple of ways to do it. Before you had to have what's called a sweep of 12 inches wide and you actually would cultivate and rip up all the ground and get all the weeds. Now we'll disturb anywhere from a “disc”, which is maybe half an inch on 10 inches. Or if shanks are going into the ground every 10 inches or 12 inches, you only have three inches that actually go into the ground, so you're only disturbing three inches out of 12 inches. So anywhere from 5% to 30% of the field is actually getting tilled where the seed and the fertilizer is put in. That allows the worms and the stubble and the material to stay in the ground, and you get the whole system going with more bugs, more bacteria, and everything. It is far healthier. The organic matter is increasing.

The Chair: Thank you very much.

Again, thank you so much, witnesses, for taking your time to come and share your expertise with us.

In a week and a half we will be in Halifax to continue our tour, and then we'll be providing a report to the government, so your information has been very valuable and much appreciated.

At this time, colleagues, we will adjourn the meeting and then proceed to the bus, because we have rush hour traffic here in Calgary.

The meeting is adjourned.

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