Mailing Address
PO Box 1372
Saskatoon SK S7K 3N9

Office
220 20th Street West
Saskatoon SK

p 306.665.1915
f 306.955.5852
info@environmentalsociety.ca

Written Comments to the Saskatchewan Ministry of Environment on the Prairie Resilience Document

From the Saskatchewan Environmental Society, March 2018

SES was pleased to have the opportunity to participate in the February 27th consultation meeting at which responses to the *Prairie Resilience* document were invited. We congratulate the Ministry of Environment for undertaking this public process. The meeting was well facilitated and produced many interesting suggestions from diverse sources. As requested, we are submitting these written comments to supplement what was recorded by your note-taker.

Our earlier recommendations (e.g. in a 2015 letter to Premier Wall following the Paris Agreement) are presumably on record, but we take this opportunity to briefly repeat and update these, as well as re-iterating the points we raised during the meeting. For your convenience in digesting this material, we present it in point form.

- **Failure to acknowledge the urgency of climate change.** While *Prairie Resilience* acknowledges that climate change is real, it makes no reference to the urgent nature of the issue. There is no discussion of what is at stake for the future of humanity – if greenhouse gas emissions are not rapidly reduced - in areas such as food security, water security, species decline, sea level rise, extreme weather events, or the risk that parts of the planet may become uninhabitable. Nor does *Prairie Resilience* make reference to the underlying premise of the Paris Accord: that in order to prevent global average temperature exceeding two degree Celsius, fossil fuels will need to be entirely phased out well before the end of this century. These are very serious omissions, and unexpected considering Saskatchewan has already presumably committed to this premise in signing the Vancouver Declaration on Clean Growth and Climate Change. Overall, these gaps set the tone for a document that falls well short of being an adequate response to climate change.

- **Unacceptable degree of ambition**. As part of its commitment to the Paris Accord, the Government of Canada has pledged a 30% reduction in national greenhouse gas emissions below 2005 levels by 2030. Saskatchewan's fair share of Canada's emission reduction commitment requires that we reduce CO_2e emissions by 35% from today's level by 2030 (the need for a 35% rather than a 30% reduction results from the fact that Saskatchewan emissions have risen significantly since 2005). SES estimates this reduction means that Saskatchewan must achieve approximately 26 million tonnes CO_2e in annual reductions by 2030. The strategies described in *Prairie Resilience*, although useful, do not have target numbers associated with them and will not, on their own, enable us to achieve the necessary reductions. Moreover, the Saskatchewan Government has failed to establish an overall reduction target for the province consistent with Canada's commitment, and has further failed to set reduction targets for sectors other than electricity and upstream oil

and gas. As the Provincial Auditor of Saskatchewan notes, without these targets "Saskatchewan may not be able to fulfill its commitment to Canada to contribute to the reduction of GHG emissions."

- **Unbalanced focus on adaptation.** On page 3, *Prairie Resilience* defines resilience as "the ability to cope with, adapt to and recover from stress and change". This kind of resilience is obviously required in the present situation, where our province is already feeling the effects of climate change in the form of irregular precipitation, forest fires and insect damage. However the most urgent challenge is to actually tackle the source of the "stress and change", i.e. to reduce the emissions. The very strong focus on adaptation rather than emission-reduction in Prairie Resilience leaves us vulnerable to the accusation of "climate apartheid" so powerfully expressed by Bishop Desmond Tutu and described by a participant at the February 27th meeting.

- **Carbon pricing.** By eliminating the most economically effective mechanism for emission reduction, *Prairie Resilience* makes the task before us far more difficult and expensive. Because the province would have the option of using revenues from a carbon tax in any way it wanted to, we reject the concept that it would be economically harmful. The options for use of the revenue include supporting vulnerable or trade-challenged industries, redistributing the revenue to all Saskatchewan residents or in rebates to low-income families, and facilitating the transition to efficiency and renewable energy. Realistically, if Saskatchewan does not introduce a carbon pricing system the federal government will impose one, so we suggest that it would be better for the Province to take the initiative so that it can control the way the financial returns are distributed. As a participant noted in the February 27th session, the simplest way to regulate non-regulated sectors is to introduce a carbon price to ensure they are facing a price incentive for emission reductions.

- **Forest sinks and sources.** The provincial Strategy assumes that we will be able to take credit for carbon sequestration in commercial forests. The Strategy notes "Saskatchewan's commercial forests store an estimated 3.5 Mt of CO_2e every year" (p.4). It is unclear from this statement a) whether "commercial forests" refers to managed forests as defined by Natural Resources Canada (NRCAN), b) whether 3.5 Mt represents the *net* of storage minus emissions from these forests, and c) if this storage is a result of deliberate policy interventions.

  Natural Resources Canada notes that in 2015, *net* emissions from the 226 million hectares that represent Canada's managed forests, totaled 221 Mt. This large number is primarily a result of large scale natural disturbances such as forest fire. However, NRCAN further notes that "forest lands managed for timber production continue to be an ongoing sink…26 Mt CO_2e in 2015." This apparent contradiction may be due to a difference in definition of "managed forests" and "forest lands managed for timber production". This requires clarification.

  If Saskatchewan is seeking credit for carbon storage in commercial forests, are these lands managed to maximize carbon storage potential? In the other words, is the carbon storage a result of deliberate policy interventions and management decisions? Are these lands immune to the impacts of insect outbreaks and forest fires that are anticipated to increase in severity and frequency as climate change intensifies? SES suggests that the Ministry should only seek credit for carbon storage that is a result of deliberate management actions or policy decisions. Further, and importantly, if Saskatchewan is seeking credit for carbon storage on these lands, what is the contingency plan in place to deal with the natural disturbances that will undoubtedly reduce the capacity of our forests to sequester carbon in the future? Will Saskatchewan then be seeking compensatory mitigation actions of equal magnitude in other sectors?

- **Soil sequestration.** Claiming credit for soil sequestration is very open to challenge as the capacity for absorption of additional carbon approaches its natural limit after a number of years of appropriate cropping practice. As was pointed out by a farmer at the February 27th meeting, many farmers have been building soil carbon by using conservation tillage for a couple of decades or more. While this early adoption is admirable, even if it was done for reasons other than to reduce greenhouse gas emissions, offset credit could be offered only for additional sequestration that has taken place since 2005. There may be a need to find some other way of rewarding farmers whose soil no longer has much capacity left for additional sequestration, but our national commitment and our global responsibility is to reduce below 2005 levels. To claim an offset we would need to know the amount of carbon in the soil in 2005 and the amount added annually since then. This will obviously vary significantly from farm to farm and will be difficult to document. Moreover, any reductions in emissions from soil sequestration in Saskatchewan have likely been offset by increases in emissions as a result of accelerated wetland drainage. In general, the SES recommends that if the Ministry is seeking credit for carbon storage in soils and managed forests they must also document carbon releases from activities such as wetland drainage, and forest and grassland conversion that are a result of policy decisions. To design a policy system that will adequately incentivize additional storage capacity on our landscape, Saskatchewan cannot ignore policies that lead to carbon losses while seeking credit for policies that lead to carbon storage.

- **Electricity – generation.** SaskPower's intention to have 50% of its generation capacity from renewable sources by 2030 is very encouraging. However, as electrical demand is projected to increase significantly over this time period, it is estimated that we will still have 3500 MW of fossil fuel-dependent capacity by 2030. While more of this capacity will depend on natural gas rather than coal, other measures will be required to eliminate the need for coal, and eventually natural gas, for electricity generation.

- **Electricity – renewable.** A feed-in tariff has been used successfully in other jurisdictions to facilitate the transition to the use of wind and solar resources. We recommend the introduction of this approach to accelerate the development of renewably-powered inputs to the provincial grid. We also recommend import of hydro power from Manitoba to meet part of the capacity requirement currently dependent on coal.

- **Electricity – cogeneration.** Fossil fuel demand could be reduced by policies that encourage co-generation at potash mines and other suitable sites.

- **Electricity – efficiency.** SaskPower currently has a rather modest program to facilitate improved electrical energy efficiency by its customers. Efficiency Vermont provides a good example of an approach that makes the use of efficient products and practices much more convenient and economically beneficial for commercial and industrial consumers. We suggest a substantive utility investment in electrical efficiency is needed to achieve a 500MW cut in required capacity by 2025.

- **Electrical rates.** Two changes we have previously recommended are a) an increase in electricity rates for large commercial and industrial customers so that they pay similar rates to those paid by residential customers; and b) an increase in rate as one's demand increases, rather than the reverse (which is the present system). These measures would provide incentives to large commercial consumers to invest in more efficient practices and equipment.

- **Electricity – carbon capture and storage.** The experiment at Boundary Dam 3 has been useful and instructive. However, it has demonstrated that the cost of this approach to carbon sequestration is too

expensive to be more widely used. SaskPower has numerous more attractive options for emissions reduction. We recommend that Saskatchewan's use of coal for electricity generation be fully phased out by 2030, with the exception of the existing CCS unit.

- **Oilfield methane.** We are very pleased to see the intention that the Province will regulate methane emissions from oilfield operations. This aligns well with the federal regulations on methane the Government of Canada also plans to put in place. We have noted a recent study (https://davidsuzuki.org/press/study-confirms-b-c-oil-gas-industry-government-underreport-fugitive-methane-emissions/) which reported that actual measured methane emission levels from oilfield facilities in BC were very much higher than the levels that had been estimated and reported to regulators. Undetected fugitive emissions are probably to blame. We suggest that the province commission an aerial study to more accurately determine the present emission levels in order to define a starting point from which reductions would be measured. We recommend consultation with North Dakota on their approach to reducing emissions, an approach that includes a ban on venting and support of systems to facilitate collection and processing of captured gas.

- **Buildings.** The intention to adopt national energy code requirements is a very good step forward. We look forward to the Ministry working collaboratively with the Government of Canada as it works to enhance the national building code, and increase ambitions for emission reductions in the building sector, such as via the adoption by 2030 of near zero energy standards for new building construction. We have also strongly recommended incentives for home energy retrofits, and for installation and grid-connection of solar power on private buildings.

- **Transportation.** Encouraging short-line rail use for freight is a positive move. We also recommend expanding use of rail transportation (e.g. restoring passenger rail service between major cities). At least, at a minimum, restoring bus service should be a priority. The province should work with municipalities to facilitate infrastructure development to encourage alternatives to the use of private vehicles. Better public transit systems, cycling paths and winter sidewalk maintenance would help minimize private car use. We have also recommended a reduction of the highway speed limit to 100km/hr in order to improve fuel use efficiency as well as highway safety.

- **Re-training workers and transition support.** Making a just transition from an energy-wasteful, fossil-fuel-based economy to one based on efficiency and renewable energy will require re-training of workers as well as policies to mitigate the effects on specifically impacted communities.

- **Agricultural challenges.** The agricultural industry is certainly our biggest challenge in reducing emissions. Minimizing use of synthetic nitrogen fertilizers would help. Commercializing alternative technologies for production of ammonia which result in lower GHG emissions would also be beneficial. A stockgrower at the February 27th meeting mentioned that alternative cattle-raising methods can reduce methane emissions from burping. The work of Darrin Qualman and the National Farmers Union on the climate benefits of smaller, mixed, organic or near-organic farms should be reviewed. Soil conservation, appropriate land-use, encouragement of preservation of wetlands will all contribute to a solution.

- **Transformational change.** Transformational change means more than changing how we do things. It means being open to changing what it is that we do. Saskatchewan is in the present difficult situation of having become reliant on an economy that is very greenhouse gas intensive and which is no longer tenable. We have to be bold in envisioning a different image of this piece of the planet which does not require us to make the world less and less a suitable habitat for ourselves and other creatures.

These comments are submitted on behalf of the Board of Directors of the Saskatchewan Environmental Society by Board members Ann Coxworth and Peter Prebble, and Hayley Carlson, Youth Affiliate to the Board.