



"To be truly radical is to make hope possible rather than despair inevitable."

Raymond Williams

January 2014

Happy New Year!

SAGE meeting Thursday, January 9th at Saigonee restaurant at 5:30 p.m.

New: Alberta Invasive Species Council. See the Invader Newsletter Volume 1. www.abinvasives.ca

CO₂ Left to Burn

The past year has seen the release of the latest IPCC report which has confirmed human impact on global warming and resulting climate change. Carbon dioxide concentrations in the atmosphere also broke the 400 ppm mark in northern latitudes.

Though some scientists have suggested a safe level of CO₂ in the atmosphere is 350 ppm, experts have placed the absolute maximum at 450 ppm. Beyond this level, there are concerns that warming above 2°C will be out of our control. Given the science, this means that we can consume no more than a half trillion tonnes of carbon, requiring a reduction of 80% by 2050.

How much can you reduce your consumption in 2014?

Public Pastures in Saskatchewan

The Public Pastures—Public Interest has had a positive year protecting grasslands after the federal government abandoned its responsibility to their long-term management.

In a press release, the organization outlined the results of effective lobbying and public support for these important lands, the most important being that virtually all of the land will remain publicly owned for the time being. The pastures will not be subdivided, and if sold it will be to pasture patron groups and only with a conservation easement. In addition, the penalties and enforcement system for land sold with an easement has been markedly improved.

Access for hunting and naturalists/scientists pursuing research will not be changed, in recognition of the public aspect of public pastures.

Another positive outcome has been the media exposure on the importance of public pastures, with interest groups sharing ideas about the future of the lands. In particular, the Province of Saskatchewan has repeatedly given assurances that species at risk and biodiversity will be protected through a provincial management system, including wildlife areas and heritage rangelands.

Saskatchewan is clearly recognizing the ecological value of public lands, something that Alberta can learn.

Satellite Research Measuring Wildlife Disturbances

The Oldman Watershed Council (OWC) Headwaters Action Plan is using 'linear features' as an indicator for the integrity of the Oldman River headwaters region.

Linear features include cut lines for forestry and industrial activity like mining and seismic, power lines, lease roads and trails. Once linear features have been created, other uses tend to follow, resulting in long-term degradation of the land with invasive species, wildlife disturbance, and erosion that effects the health of

streams and rivers.

A recent Canadian Press [article](#) announced an ambitious project to use high-resolution satellite imaging (lidar) to validate existing records and industry data in order to measure the effect of off-road vehicles on wildlife.

Wildlife that have been colored can be monitored in real time to correlate with the condition of the land, including weather, and human activity during the same period.

The article states: "Pressure on caribou and grizzly bears is increasing in Alberta's forests due to energy exploration and development and forestry. All 15 of Alberta's caribou herds have been shrinking rapidly. Some are expected to die out in a generation unless habitat is restored."

"The results of this work will probably be used to understand species at risk, their habitat needs and how resource development extraction may impact the needs of wildlife habitat," the researcher said.

"When we understand better what the animals do on recovered habitat, then we can better focus on restoration efforts."

One might hope that it would also support the preservation of wildlife areas from industrial activity. The ongoing impact of human activity in wildlife areas has only loosely been addressed in the South Saskatchewan Regional Plan. The OWC Headwaters Action Plan, however, has made clear recommendations to restore linear features and limit access in some areas so as to preserve habitat and protect the health of water systems.

SSRP visionary or a bad dream?

(Courtesy of Lorne Fitch, P. Biol., written 2013, published in the Lethbridge Herald)

A review of the draft South Saskatchewan Regional Plan (SSRP) leaves one with the sense that never have so many waited for so long, with such high expectations, for so little. We are building – perhaps inadvertently, but surely inexorably – the watersheds and landscapes of tomorrow with current incremental, cumulative and ad hoc decisions about land use. There is no question about the need for a regional plan. However, we are long past the time for a plan with a few baubles, some shiny things, a couple of diamonds but mostly the old “business as usual” car tarted up with a new paint job.

When logging began in the headwaters of the Oldman watershed before the turn of the last century, no one could envision the footprint or the residual legacy of issues it would provide. The same

things could be said of agriculture, especially the cultivation of most of the grassland and the development of irrigation with the considerable amount of re-engineering of water. We have a busy landscape, with the oil and gas industry, urban development, the road network and a myriad of other land uses. Our developmental footprint is neither strictly good, nor bad, but there are consequences of how, where and when we changed the landscape.

The point is we now have that history as a benchmark. If we use the tools of cumulative effects assessment, biodiversity metrics, landscape health measurements and water quality trends to inform ourselves we have a chance to set the trajectory for the future to one of sustainability, environmental integrity and livability.

Cumulative effects assessment is a key tool that will help us if we use it; it is counterproductive to ignore the past footprint of land use and begin as if that footprint doesn't exit. But, that is precisely what the SSRP suggests – ignoring the past and marching on as if it didn't occur. It would seem the mantra is, “Today is the first day of the rest of the SSRP, forget about yesterday.”

We should be using these tools to guide us and take the limited time opportunity to plan for a landscape and watersheds of integrity, with all the indicators of health for the foreseeable future. While economic development is important we need more than the lens of economics to be able to view our possible future. Real economic development is based on landscape integrity and biodiversity, not in doing the same things in

Interesting Links:

Shale Gas: How often do fracked wells leak? (Nikiforuk) <http://thetyee.ca/News/2013/01/09/Leaky-Fracked-Wells/print.html>

Wellbore permeability estimates from vertical interference testing of existing wells (Gasda, et.al.)
http://www.sintef.no/uploadpages/55483/Gasda_et_al_GHGT11_final.pdf

Endangered Species Condoms project
http://www.biologicaldiversity.org/programs/population_and_sustainability/index.html



Southern Alberta Group for the Environment (SAGE)

A Leading Voice for a Healthy and Environmentally Sustainable Community.

Visit us at: <http://sage-environment.org/>

If you are interesting in getting involved, contact us at:

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just bigger ways.

We can't do it today – that is too daunting a task. But, today we could begin to erase some of the past destructive footprint and vow not to add any more to it. Grasping that opportunity means we have to recognize and reconcile ourselves with the notion the current path we travel is unsustainable. The landscapes and watersheds of today are stretched; there are cracks and holes in the foundation of the South Saskatchewan watershed.

I would have hoped the SSRP would have helped us see the landscapes of tomorrow by providing more clarity and vision. What many were waiting for was a plan that defined measurable goals, set thresholds, provided performance expectations, used cumulative effects assessment as a tool, indicated monitoring was systematic, comprehensive and transparent and finally, showed the capacity and budgets to achieve this vital exercise. While many of the words are used in the draft plan what seems lacking is the will to acknowledge protection of the environment means tradeoffs and hard choices with economic and recreational interests.

Special economic interests have bypassed the planning process and insinuated their vision into the SSRP without any public review, input or acceptance. Input received by the Alberta government indicates that Albertans want to be part of solutions, and it should be acknowledged that lasting solutions occur only when

there is adequate, transparent and fair involvement. Ignoring public opinion, like the antipathy people hold for industrial logging and relying on industry-based planning, does not create a sense of comfort about the future. When viewed through the lens of economic development, everything is possible; when a wider lens is used, a "business as usual" approach is highly suspect.

There is still a chance to influence the outcome of the SSRP. What we suggest and what the Alberta government accepts and implements will set the course for the landscapes and watersheds of tomorrow. Those decisions will also determine whether our watershed continues to contribute the vast array of products, services, amenities and values it currently does. However, if we think the status quo ("business as usual") of doing everything, everywhere, all the time is sustainable we run counter to evidence based science.

To paraphrase Al Gore, "The hard truth is that the maximum that seems politically feasible still falls short of the minimum necessary to provide a vision for the SSRP and the actions that will take us into a desired future." I would hope that thoughtful, concerned Albertans will take the time to review the SSRP, reflect on the reality there are thresholds and limits and ask the provincial government to make the hard and necessary changes now. There should be a sense of urgency about this plan. Waiting, procrastinating and delaying the inevitable will ensure we miss the window of opportunity to make

those changes and fail to set a different, hopefully better course for the watershed.

Generations of future water drinkers, anglers, business people, recreationalists and workers will be served better if we accept thresholds, adapt to changes and dial back on expectations, now. We need a plan for the South Saskatchewan River watershed with such vision and one that isn't written with a feller buncher, an all-terrain vehicle, an irrigation pump or an oil pump jack.

Lorne Fitch is a Professional Biologist, a retired Fish and Wildlife Biologist and an Adjunct Professor with the University of Calgary

America's Education Deficit and the War on Youth (2013)

Henry Giroux offers an uncompromising critical assessment of western society as it relates to education, government, and the plight of youth. The prose is reminiscent of Chris Hedges as an acerbic critic of America, but Giroux offers a more substantial analysis supported by sociological research.

From an environmental perspective, this book offers some insight into the systemic ills that restrict progressive movement in our society. "Matters of politics, power, ideology, governance, economics, and policy," Giroux says, "now translate unapologetically into a systemic disinvestment of those public spheres that traditionally provided the minimal conditions for social justice, dissent, and democratic expression" (p.10). In other words, the enthusiasm for privatizing the public sphere has undermined our collective ability to direct decisions towards the public good - including preserving and restoring the natural environment that we rely on.

Giroux identifies education as the locus of change - both as a rupture for critical thought and as a source of the type of language that allows for change. He argues: "The machinery of permanent education and the public pedagogical relationships these create have become the main framing mechanisms in determining what information gets included, who speaks, what stories are told, what representations translate into reality, and what is considered normal or subversive. The cultural apparatuses of popular education and public pedagogy play a powerful role in framing how issues are perceived, what values and social relations matter, and whether any small ruptures will

be allowed to unsettle the circles of certainty that now reign as common sense" (p.31).

Giroux sees the assault on education as the assault on youth, and by extension, the assault on future society and the natural environment. "Developing a broad-based social movement means finding a common ground upon which challenging diverse forms of oppression, exploitation, and exclusion can become part of a wider effort to create a radical democracy. Language is crucial here, particularly language that addresses what it means to sustain a broad range of commitments to others and build more inclusive notions of community. Appeals to social and economic injustice are important, but do not go far enough. There is a need to invent modes of communication that connect learning to social change and foster modes of critical agency through which people assume responsibility for each other" (p.19).

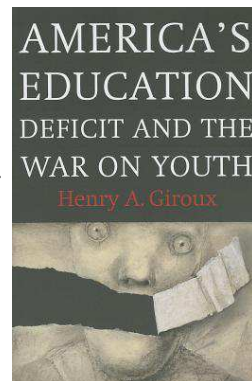
It is at the level of language that Giroux believes the current system is emasculating the potential for progressive change: "There is more at work here than carpet-bombing the culture with lies, deceptions, and euphemisms. Language in this case does more than obfuscate or promote propaganda. It creates framing mechanisms, cultural ecosystems, and cultures of cruelty, while closing down spaces for dialogue, critique, and thoughtfulness. At its worst, it engages in the dual processes of demonization and distraction" (p.42). Demonizing environmental and social justice groups while distracting the public with circuses and anaesthetizing thought through repetitive propaganda has had the effect, Giroux argues, of disillusioning the youth - in effect, he

is describing a war on youth (as suggested in the title of his book).

In defense of youth, and the future of society and the natural environment, Giroux promotes education - education as "the terrain where consciousness is shaped; needs are constructed; and the capacity for self-reflection and social change is nurtured and produced" (p.65). Education has the potential create an understanding of shared responsibility, at the heart of social and economic justice, which is related to environmental sustainability.

He ends the book, unfortunately, with a paean to 'hope'. For Giroux, hope "is the precondition for individual and social struggles that involve the ongoing practice of critical education in a wide variety of sites and the renewal of civic courage among citizens, residents, and others who wish to address pressing social problems. *Hope* says "no" to the totalizing discourse of the neoliberal present; it contains an activating presence that opens current political structures to critical scrutiny, affirms dissent, and pluralizes the possibilities of different futures. In this sense, hope is a subversive force" (p.152).

I don't blame him - it seems at times, that 'hope' is all we have - though one might question its revolutionary potential. In the sense that he advocates for hope, he sees it as an impetus for encouraging change that places value on recapturing the public sphere for the public good. And maybe that's a good start.





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A leading voice for a healthy and environmentally sustainable community

December 5, 2013

To: Greg Weadick, MLA, Lethbridge-West
Bridget Pastoor, MLA, Lethbridge-East

From: Braum Barber, Director, Southern Alberta Group for the Environment

Re: Drilling in Lethbridge Municipality

The comments you recently made at the rally at Galt Gardens regarding drilling in Lethbridge were encouraging: that is, drilling for oil and gas within the city limits is not an appropriate activity. As Goldenkey Oil is following regulatory procedures, it seems that it is only the Government of Alberta that has the authority to prevent drilling near dense populations of people.

SAGE has many concerns about the safety of drilling in the municipal limits of Lethbridge – both to its residents and to the natural environment upon which we depend for our health and wellbeing. Goldenkey has purchased leases to drill for oil in West Lethbridge, near expanding residential areas and schools. These wells are exploratory which, by definition, means that they do not know what sort of oil production to expect. We simply cannot understand why a junior oil company would drill a financially risky exploratory well in a risky area near a dense population of people.

In the event that drilling, completion and production of oil wells proceeds in West Lethbridge, there are many concerns that must be addressed:

1. The first is the mitigation of surface disturbances including noise, traffic and dust during drilling, stimulation and production. Goldenkey has said that they meet the requirements of the AER, however, we feel that they should greatly exceed these regulations considering the potential to affect a large population.
2. Secondly, the transportation of hazardous materials through Lethbridge is of concern: including toxic produced water, produced oil, and chemicals used to sweeten the solution gas. This concern includes the storage of hazardous materials on site, which could exacerbate the impact of, say, serious grassfires (of which there have been two in West Lethbridge over the past number of years).
3. Thirdly, fugitive emissions of sour gas and chemicals pose a safety threat for downwind residential areas. These emissions may originate from leaky packing on a pump jack, the venting of tanks, potential leaks in piping systems, safety valves on compressor systems, and possibly during the replacement of sweetening chemicals.

4. And finally, we are concerned about the risks of contaminating groundwater aquifers and surface water from spills, leaks, and unpredictable communication up the well, offset wells, or through geological formations induced by the hydraulic fracturing of the formation.

In addition, as the City of Lethbridge has publically stated, this project negatively affects plans for municipal development in West Lethbridge as it will be restricted by well-site setbacks, pipeline access, visual impositions of pump jacks and storage facilities, and a general loss of desirability due to industrial traffic and surface disturbances like noise, dust and odours. We understand that there are financial mechanisms for restoration/reclamation of the sites (such as AER Licensee Liability Rating program, and the orphan well fund), however, we would expect a commitment for reclamation to a higher standard as this land will eventually become residential neighbourhoods, parks and schools.

There is clearly a gap in regulatory processes and government oversight that would allow oil exploration to occur within the municipal limits of a city and near dense populations. We cannot believe that Goldenkey's Penny Project in West Lethbridge would meet a credible risk/benefit assessment, unless the risks were being underwritten by financial incentives – perhaps it is time for the province to begin to roll back financial incentives for the exploitation of marginal oil and gas reserves in the province.

As SAGE has requested in the past – for drilling and hydraulic fracturing in other inappropriate places in the region – baseline groundwater and surface water quality and air quality should be developed with a plan for ongoing monitoring. A strategy to monitor health complaints from residents near the well-sites would be important, as would be an emergency response initiative in collaboration with the City of Lethbridge for managing grassfires, spills, leaks, traffic accidents, and fugitive emissions of sour gas.

We look forward to your thoughts, and your active advocacy within the Government of Alberta to stop drilling within the municipality of Lethbridge.

Sincerely,



Braum Barber
SAGE

cc. Mayor Chris Spearman, City of Lethbridge
Hon. Robin Campbell, Minister of Environment and Sustainable Resource Development

Submitted by Braum to the Lethbridge Herald in response to a series of letters from the Energy Collegium - not printed to date.

There have been a series of letters from a local group regarding alternative energy and climate change. Their arguments, in brief, are that alternative energy technologies are not effective and too expensive; and that human-caused global warming is at best uncertain and, at worst, a hoax.

Wind-generated power is viable and cost-effective, approaching coal-fired facilities (and maybe cheaper if health and the climate impacts of coal burning were considered). Financial payback is normally less than 8 years for a wind turbine. A typical solar system installed on a Lethbridge home today can pay itself back over its useful life. The goal, of course, of using alternative technologies is to lower greenhouse gas emissions, which explains why this group finds it necessary to dismiss the scientific consensus on global warming.

They complain about subsidies for alternative energy, though they ignore that these are dwarfed by those that have gone, and continue to be directed, to the fossil fuel and nuclear energy industries. The annual \$2 billion in subsidies to the fossil fuel industry in Canada could be used for a better energy future, rather than for exploiting marginal non-renewable reserves (like drilling in Lethbridge) in a desperate dance to maintain the status quo.

These technologies are intermittent and not suitable for the base electricity load, they argue. A good argument except nobody is proposing 100% renewable energy at this time. That may come with advancements in technologies and, perhaps, significant adjustments in our collective energy use.

The IPCC (representing the best of climate research) suggests that we will have to reduce fossil fuel consumption by 80% within 35 years to avoid the worst impacts of global warming - a goal bordering on incomprehensible in its magnitude. This will require concentrated scientific efforts, significant financial investment, and dedicated political will. Sowing doubt is not helpful. Healthy skepticism of climate science might have been appropriate 20 years ago, but today it is a sign of willful ignorance.

If we are to leave to our children and grandchildren anything approximating the quality of life we have enjoyed, we will have to begin addressing both sides of the carbon equation: our rate of energy consumption, and how we produce it – and any solution in electricity generation will involve wind and solar technologies at some level.