



“Today’s wastage is tomorrow’s shortage.”

Unknown

March 2016

Eastern Slopes Communiqué: Cutthroats Cut Out of the Castle

SAGE Meeting every third Wednesday, March 16, 2016 at the Lethbridge Public Library downtown, 7 to 9 p.m.

Footprints on the Landscape Speaker Series. March 1, 8 & 15: 7-9 p.m. Lethbridge Public Library, Main Branch.

Groundwater and Surface Water Management. [CWRA](#). April 3-5, Edmonton.

OWC Holding the Reins, March 10 Ft. Macleod. [Register at OWC](#).

Helen Schuler Nature Centre upcoming events:

Coulee Cleanup. April-May, groups may register with Curtis at 403-320-4985

Weedpull, third Thursday of month May through September
Shoreline Cleanup on select dates.

curtis.goodman@Lethbridge.ca

Benga Mine Update

The AER has notified Benga Mining that their Environmental Impact Assessment had major deficiencies and a resubmission is required.

The OWC sent a comprehensive letter to the Alberta Energy Regulator outlining many of the deficiencies.

A number of organizations, including SAGE, are sharing communiqués regarding impacts on our eastern slopes. The following extract is from the Timberwolf Wilderness Society and Alberta Wilderness Association:

The Critical Habitat Order for Threatened westslope cutthroat trout provides the legislation needed to prohibit off highway vehicles (OHVs) within the Castle Provincial and Wildland Provincial Parks. Alberta Wilderness Association (AWA) and Timberwolf Wilderness Society are calling on the Federal and Provincial Governments to enforce the Order to protect remaining westslope cutthroat

ENMAX Offers Home Energy Report

ENMAX Energy is offering a Home Energy Report to consumers in an effort to make people aware of their home energy consumption relative to nearby homes. It creates, in essence, an incentive (through awareness) to improve the performance of a home, and an ability to measure the impact of that improvement.

The Report takes 100 homes within 300 m of your home which are labeled ‘Similar Homes’, and it then takes the 20 lowest energy consumers which the Report labels as ‘Efficient Homes’.

Your home is compared over a period of a year to these two

trout populations in the Castle. This initial step will work towards restoring populations to self-sustaining levels as per the Recovery Strategy issued in March 2014. This call was issued in a joint communiqué released by a number of scientists, individuals, and conservation organizations demanding proper management of Alberta’s Eastern Slopes.

“Both of the proposed Castle Parks contain much of the remaining westslope cutthroat trout critical habitat, the destruction of which is illegal under the recently issued Critical Habitat Order.” says Joanna Skrajny, AWA Conservation

categories. An example is shown on the following page. In the example home, the electricity consumption is lower than the ‘Efficient Home’ while the natural gas comparison shows the example home to be somewhere between the average of the neighbourhood and the more efficient 20%.

The result is that the example home is rated about 9% higher than an ‘Efficient Home’, which earns it a Good and a Happy Face. The home uses about 42% less than the ‘Similar Homes’ in the neighbourhood, comparatively saving the homeowner \$1280 each year.

Specialist. “With motorized recreation in place, native plants are not protected from invasive species, native fish populations are not protected from watercourse disruption, and native terrestrial populations are not protected from habitat fragmentation. Allowing OHVs in the Castle Parks would set a dangerous precedent, additionally, it would ignore scientific evidence and public support for the protection of wilderness and wildlife.”

“Of course, this issue extends far beyond the Castle Parks. All critical habitat as identified in the Order is protected,” says Dave Mayhood, Timberwolf’s Aquatic Ecologist. “The provincial governments’ ongoing “open unless closed” land use policy is resulting in significant damage being done to streams containing westslope cutthroat trout. All OHV trails and roads destroying any part of westslope cutthroat trout critical habitat need to be closed and decommissioned. It’s quite simple - it’s the law.”

Remnant populations of native trout now exist only in short, isolated headwater reaches of the East Slopes; just a small fraction remains of their historic abundance and distribution.



ENMAX Energy
PO Box 2900 Station M
Calgary, Alberta T2P 5A7

Home Energy Report

Account number:

Report period: 27/11/15-23/12/15

We're pleased to provide this personalized report to you as part of our My Energy IQ™ program.

The purpose of this report is to:

- Help you understand your energy use
- Track your progress
- Share energy efficiency tips



Learn more about the My Energy IQ™ program at

enmax.com/myenergyiq

0274277



LETHBRIDGE AB T1J 2X7

Last Month's Household Comparison

You used approximately **9% more** energy than Efficient Homes.



Your usage:



* This energy index combines electricity (kWh) and natural gas (GJ) into a single measurement.

Which Homes are Compared?

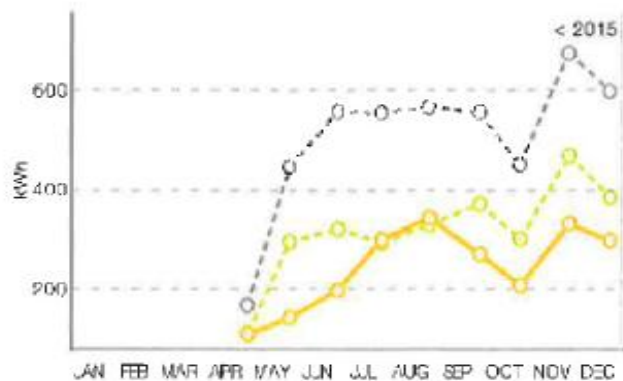
Similar Homes: Approximately 100 occupied, nearby homes (avg 0.32 km away) that are on an ENMAX Energy retail plan.

Efficient Homes: The 20 per cent of the Similar Homes group who used the least amount of energy for the selected period.

Last 12 Months Household Comparison

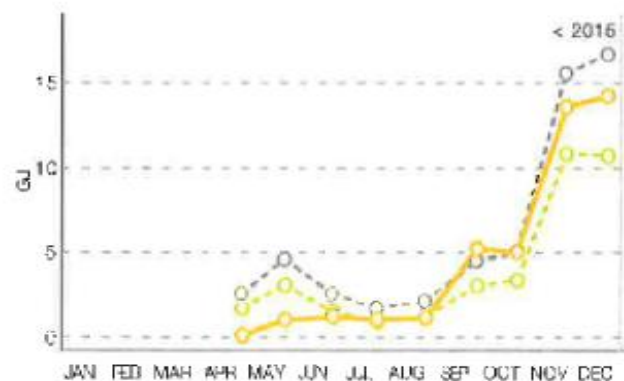
You used approximately **42% less** energy than Similar Homes.
This saves you about **\$1,280**.

⚡ **Electricity** | 52% less electricity than similar homes



Key: ■ Your Home ■ Similar Homes ■ Efficient Homes

🔥 **Natural Gas** | 24% less natural gas than similar homes



A Solar Experience, Hans-Henning Muendel and Beverly Muendel-Atherstone, 2015

Some of you may remember our free-standing (anchored by 16 tons of concrete) solar photovoltaic installation of 24 panels of 250W, installed late in 2013; with our first full year of microgeneration being 2014. The system was supplied and installed by Energy Smart Canada.

As the photovoltaic cells produce DC, our 5000 W inverter gets in play with 2 DC 'strings' of 12 photovoltaic modules each, linking up to a 30 Amp AC branch circuit, to our house, via a 50 m underground cable.

Well - now we have the second full year, i.e. 2015, behind us, and information to share and compare.

Of course, years differ in the amount of solar electricity produced and, indeed, used in the home. But, we also changed a few things in rather major ways: while in 2014 we had an electric heater in the garage in cold weather to keep the cat's water liquid for extended periods of time, in 2015 we did this only for a few days total. Instead, when ice formed, it was replaced with fresh water from the house. And our electric mower was plugged in almost continuously during 2014, but we did so only during the active mowing time in 2015.

So: our total electricity (from grid and from microgeneration) use in 2014 was 9000 kWh; and in 2015 it was 7107 kWh. Our total microgeneration produced in 2014 was 8200 kWh and just a bit more in 2015 at 8376 kWh. Thus, while in 2014 our microgeneration from our own system amounted to 91% of out total electricity use (i.e. 8200/9000), in 2015 we produced 118% (i.e. 8376 / 7107) of our total electricity use.

Interesting Links:

Earth Observatory (NASA) <http://earthobservatory.nasa.gov/?eocn=topnav&eoci=home>

Census of Marine Life (COML) <http://www.coml.org/>

Banking Nature (The Passionate Eye) <http://www.cbc.ca/passionateeye/m/episodes/banking-nature>

Solar Energy Myths (Pembina Institute) <http://pembina.us2.list-manage1.com/track/click?u=e1325d570d1922afa769cfa1c&id=18787b0d12&e=77c5547d59>

Wind Power Realities (Pembina Institute) <http://www.pembina.org/reports/wind-power-realities-rev.pdf>

On Nature's Death Row: Alberta's Coveted Foothills Forest <http://theyee.ca/News/2016/02/11/Alberta-Foothills-Forest/>

Disney Solar Farm <http://www.mnn.com/lifestyle/arts-culture/blogs/disneys-new-solar-farm-shape-mickey-mouse>

In the past 12 months, our electric cost, including all associated costs of distribution, administration, taxes, etc., came to less than \$450. This contrasts to the three years immediately prior to having our system installed, where a twelve month period averaged \$1168. Also, we now have a fixed electricity price (same into the 'grid' as from the 'grid'). By contrast, on quick perusal of our earlier three years, costs ranged from \$0.06/kWh to over \$0.14/kWh.

The 5 kWp photovoltaic system has saved over \$700 each year and has avoided approximately 6 tonnes of CO₂, when compared to electricity from Alberta's grid.



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:

sage-communications@sage-environment.org

Environmental Politics: A Very Short Introduction

Andrew Dobson, a professor at Keele University and the Open University in Great Britain, offers another contribution to the *A Very Short Introduction* series published by Oxford University Press. The purpose of this series is to provide a brief overview of the terminology, the concepts and applied examples for the topic - in this case Environmental Politics.

Andrew Dobson does a remarkable job on what is, by and large, a very complicated subject. It would be easy to critique a book that devotes a single page to each of many topics that have been the subject of innumerable books and texts, but one has to appreciate just how much content is covered so thoroughly in just over one hundred pages.

The first chapter is dedicated to Origins: the origins of life, the origins of human impact on the environment, and the origins of environmental awareness.

Dobson begins with a beautiful metaphor comparing the length of a climbing rope (45 m) with the 4.5 billion years since the earth was formed. About halfway, the first free oxygen is found in the atmosphere. By 33 m, the first animals appear. Dinosaurs began to roam the earth in the last 2 meters, and humans show up with 2.3 mm to go. Of that 2.3 mm, 99% of the period humans were mainly involved in low impact hunting and gathering. "Most of our impact has therefore been in the last one per-

cent of the last 2.3 millimeters of the 45-metre rope that represents the history of the Earth."

That puts things in some perspective. Within the time represented by the last fibre of the rope, humans transitioned from hunters & gatherers, to agriculture, to industrial society. We have altered the environment so much in this time that scientists have declared this the Era of the Anthropocene.

In the second chapter on Ideas, Dobson compares the perspectives of environment-as-life-support and the limits to growth. Malthus on population, Eherlich on his Impact formula, the Club of Rome's publication are elaborated. More interestingly, the author offers some interesting discussion on the reasons one might want to protect the environment: For whose welfare? Issues in environmental ethics are outlined including animal welfare and deep ecology. The position of 'ecologism' is introduced as: "ecologism holds that a sustainable and fulfilling existence presupposes radical changes in our relationship with the non-human natural world, and in our mode of social and political life."

From the position of ecologism, environmental politics is explored through the lenses of conservatism, liberalism, socialism, and feminism.

The third chapter traces the growth of movements, parties and policies in environmental politics. He di-

vides the environmental movement into two broad categories including professional protest organizations, and participator protest organizations. Greenpeace would be an example of a professional group, while SAGE would represent the latter. (Though SAGE was not specifically noted in the book). Dobson then describes policies as might be influenced by corporate lobbying, and then environmental parties like Green Parties that have formed in many countries.

Finally, Dobson explores some environmental policy tools like incentives, public shaming (rank-and-spank corporations, for example), pricing nature, and cap-and-trade programs. He uses ozone reduction and global warming as case studies of successful and unsuccessful interventions in environmental issues that affect the global community. (I'll leave you to guess which one was which).

Environmental Politics takes a thoughtful and balanced approach to all aspects of our environmental impacts, natural limits, and policy/political approaches to modify behaviors - and why it matters.





RE: Nov. 20, 2015 draft of South Saskatchewan Region Biodiversity Management Framework, Comments by Lori Goater with input from the SAGE Board (following stakeholders workshop in Lethbridge on Dec. 2, 2015)

Thank you for the opportunity to contribute. It is important that the South Saskatchewan Region Biodiversity Management Framework (BMF) has a strong foundation in order to maintain biodiversity in the region over the long term. The public is supportive of responsible environmental stewardship of our landscape. Managing our collective impacts on water, air, and biodiversity are in everyone's best interest.

Considerable effort has already been invested in monitoring biodiversity within our region. As recognized in the draft BMF, many projects have been dedicated to monitoring suites of biodiversity indicators and evaluating their status relative to past, current and future conditions. An overwhelming amount of information suggests that biodiversity is becoming increasingly threatened across the region. Thus, the government is challenged with the difficult job of arresting biodiversity loss in a timely and transparent manner in the face of growing population and land use pressures.

Habitat extent and quality, as well as species presence and abundance, offer many ways to measure biodiversity and the overall integrity of ecosystems. The Air Quality and Surface Water Quality Management Frameworks are built on gradients and thresholds, so it would be convenient if this approach could be applied to monitoring the status of biodiversity as well. The 'holy grail' for resource managers is a biodiversity indicator with a linear gradient of 'health' and predictable response to increasing landscape disturbance. However, biodiversity is inherently complex & dynamic, responding to the unique environmental variables of each situation.

The Government of Alberta should be commended on its intent to reduce the cumulative effects of development on the environment. Predictive modelling has been invaluable in assessing the impacts of land use scenarios on biodiversity; historic land use and water management trends have been analyzed based on understanding species responses to habitat alteration. This draft BMF is primarily a monitoring strategy, the results of which could contribute to better informed decision-making in the long term, however time is of the essence for maintaining many ecological communities (e.g. rough fescue grasslands, cottonwood forests) and Species At Risk (e.g. Westslope Cutthroat Trout, Bull Trout, Sage Grouse, Grizzly Bear). Several important inadequacies need to be addressed before government can be confident of achieving its biodiversity objectives.

The core of the draft BMF proposes measuring the urgency of management response based on interpreting the condition of an amalgamation of biodiversity indicators. Logically, this approach should be as strong as the science that supports it. Unfortunately, the draft indicates that the breakpoints between risk categories have no scientific basis (inappropriately based on the IUCN guidelines for defining endangerment of species), the 'trigger' tolerances between management levels are set arbitrarily, and performance is ranked relative to current condition instead of a sustainability benchmark. Considering the wealth of available science and the considerable importance of biodiversity (as espoused in the first half of the draft), it was disappointing to see the framework built on such a weak foundation. The majority of workshop participants were, not surprisingly, confused and frustrated during the explanation of the indicators and triggers section.

The draft BMF requires substantial investments in monitoring AND analysis. Co-opting non-government organizations to support the data-collection process could be a sensible approach; improving both monitoring efficiency and data credibility. However, it is clear in this draft that the government is inadequately prepared to analyze the large amounts of raw monitoring data that would result. The vague plan to summarize indicator data into 'pyramids' and draw superficial interpretations based on the aforementioned methodology would discredit the entire process. To prevent this, we suggest that organizations such as AEMERA be given license to define priority biodiversity targets (e.g. native mixed grasslands), select appropriate biodiversity indicators (e.g. obligate grassland bird species) and produce complete status assessments. This would increase transparency and unburden the government to focus on improved planning and managing risk. The government needs to move away from its traditional role as sole data source and become more active and transparent in facilitating information accessibility.

The draft SSR BMF lacks clearly defined, tangible and measurable outcomes that would lead to place-based actions. This can likely be attributed to the failure of the planning processes for the Land Use Framework and the South Saskatchewan Regional Plan to make tough choices and trade-offs regarding land uses and to sufficiently identify and zone those landscapes in the region where conservation and restoration of native ecosystems and species is a priority. More information is required on how the BMF links to or guides human footprint management planning, recreation management planning and forest management planning for defined areas, such as is currently underway for the Porcupine Hills and Livingstone.

Generations of Albertans have benefitted from our region's rich natural heritage. Without strong leadership toward mitigating environmental impacts, our resource-based economy will gradually erode the natural landscape beyond recoverability. Despite the urgent need for a well-designed BMF to build leadership in sustainable practices and environmental stewardship, the current draft falls disappointingly short of these goals.