



“The environment is where we all meet; where all have a mutual interest; it is the one thing all of us share ”

Lady Bird Johnson

September 2014

Earthship Built near Carmangay

SAGE Meeting Sept. 18th at 7 p.m. at the downtown Public Library.

Crown of the Continent 5th Annual Conference at Waterton National Park, September 10-12. Register at www.eventbrite.com

City of Lethbridge invites people to participate in the naming of the North Lethbridge Regional Park. Contact Dave Ellis, if you are interested.

What is an Earthship? An earthship is a type of passive-solar home that is made of recycled materials, like old tires and beer cans.

The idea is that the thermal mass (the ability of earth to hold heat) will be used to store heat during the sunny day and radiate heat into the home during the night when there is no solar input. In essence, it is a temperature shock absorber that takes the peak hot of the day and the peak cool of the night, and maintains an internal temperature in between - somewhere between 19 and 22°C.

The home will collect, store, and filter water on-site. The water will be used first for cooking and drinking, then used for shower-

ing, and the remaining grey-water will be used to water plants in a greenhouse.

Roughly 12 solar panels with storage batteries have been installed to power the home.

Many local people volunteered to help build the home. It is 1800 square feet in size and cost upwards of \$400,000.

Earthships have been successfully built in Arizona - this will be the first one operating in Alberta. It will be interesting to see how it performs in the more demanding winter climate.

Image is courtesy of Wikipedia <http://en.wikipedia.org/wiki/Earthship>



Precautionary Approach in New Brunswick

As the province of Alberta limps along with a ‘roundtable’ process to evaluate urban drilling, the Government of New Brunswick struck a committee to work independently of regulators and politicians to evaluate hydraulic fracturing of oil and gas wells. [The Report of the Independent Review Panel on Hydraulic Fracturing](#) was released this month.

Tellingly, it opened with a quote from Cicero: “The health of the people is the highest law.”

The report clearly describes the process of hydraulic fracturing and the management of contaminated flowback water from the well. The report then discusses

the reserves of oil and gas and acknowledges the limited knowledge of the geology containing the fossil fuels as well as the overburden above the producing zones.

The committee finally discusses the environmental and socio-economic impacts of unconventional fossil fuel exploitation. These include water contamination and climate disruption, though the report makes little effort to quantify the costs or discuss the intergenerational ethics of fossil fuel production.

They conclude: “There is insufficient knowledge at the present time to describe how theoretical or actual risks and

benefits may fall both in the short and the long term at the community level. And thus before any unconventional gas and oil development activity were to be permitted in the Province, adequate baseline monitoring would need to be instituted, effective regulations put in place (and enforced), and formal health, social and environmental impact assessments conducted following a precautionary approach.”

Could this be the ‘precautionary approach’ to unconventional oil and gas production that many in Alberta have been advocating for?

Stumping the Forest

(Courtesy of Lorne Fitch, P. Biol., written 2010)

Usually people of my advanced age group are favorably disposed towards fiber, both for the physical constitution and the moral one. But, I find myself more and more anti-fiber when I witness the ongoing war in the woods over industrial, clear-cut logging. Each generation has its own rendezvous with the land; it would seem today's Forest Service is at least a generation behind today's public that want their forests managed for more than dimensional lumber. The specter of logging in the Castle River watershed, in southwestern Alberta reinforces this dichotomy. It follows pitched battles by concerned citizens over logging in the Ghost watershed, Bragg Creek area, Kananaskis and Crowsnest Pass.

The impression one is left with in reviewing the actions and intent of

our Forest Service in these disputes is an agency out of touch, lacking a unifying sense of forest values. Observers might conclude that leaving forests to the care of the Forest Service is akin to leaving a pig under the protection of the butcher. In one case all that is left is the squeal, in the other just sawdust, stumps and sediment. Forests are more, much more than fiber, described as dimensional lumber, fence posts and now bark mulch for landscaping. But, fiber vision, a variant of tunnel vision, has become a debilitating disease in which perception and reason are restricted by arrogance and ignorance. Vision is further distorted by vested economic interests and politics. If left untended the malady progresses to a type of institutional blindness, in which no other forest attribute or value can be discerned. Its legacy, other

than rotting stumps and eroding skid trails, includes streams filled with silt, a ravaged landscape that has lost visual interest, an unnatural quiet, with no trees to capture the wind or shelter birds and a vacant space, across which wildlife are reluctant to travel.

If there was an appropriate metaphor for the situation it would be a brain dead dinosaur, whose tail hasn't yet got the message that forests are more than fiber. The tail, consisting of industrial clearcuts, continues to swing wildly, crushing and smashing everything in its path. It is almost as if the sole goal of our Forest Service is to reset the geological clock back to a less biologically diverse time when there were only primordial pines and ferns.

As for the foresters that design the

Interesting Links:

Atlas of Mortality and Economic Losses from Weather, Climate and Water Extremes (1970-2012).

www.wmo.int/

How to help fight invasive species? Eat them. Bullfrog anyone?

www.globeandmail.com

Bringing it home. A new documentary on industrial hemp.

www.upworthy.com



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

logging plans, the bureaucrats and politicians that push them over citizens' concerns and the corporate directors who collect the profit from deforestation, they will soon be extinct. But we must give them their due; they are doing their very best to take with them creatures whose residence in these watersheds is at least 10,000 years longer than theirs. That which exploiters fail to value, or do not value, they take no trouble to comprehend. Of clean water, cutthroat trout, bull trout, grizzlies and connections only lip service is paid.

The forests of the Eastern Slopes of the Rocky Mountains were viewed by early policy makers as pivotal to the settlement and well-being of the area later to be known as Alberta and Saskatchewan. Hence, the forests were "reserved", for water, local timber needs and to sustain wildlife. How quickly our Forest Service has forgotten history. The need for watershed protection and maintenance of biodiversity is not an artifact of history, but a compelling need for today (and the future). We need to learn to take our wealth from our forests in less damaging ways, and to realize wealth is also found in managing them for more than fiber. An intact forest is a symbol of progress, a landscape covered with stumps is not.

The Forest Service, in their antiquated public input process, sucks the oxygen out of legitimate debate over forest management with the time tested "DAD" approach

(Decide-Advise-Defend). Whatever the public process is, the deal is rigged and participants end up wasting time and energy on something our Forest Service was really never engaged in anyway. Any good will engendered by asking the public to participate is squandered and rapidly evaporates into anger towards an agency still in a command and control mode. The rush to cut trees, because they are getting older supersedes forest management for multiple values and, meaningful engagement with Albertans who care about their forests.

I know there are still professionals in our Forest Service that care about forests and have the public interest as a focus. These voices of reason, of balance and of restraint are overwhelmed by the politics of timber harvest.

If, in the future, you plan to drink water, enjoy a forest landscape, fish and hunt or watch wildlife, now is the time to pay attention to the rapid industrialization of our forests. The focus should be less on wood fiber and more on moral fiber in forest management. A lack of public oversight now will doom us to a new Alberta coat of arms displaying a field of stumps where forests once stood.

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

The Golden Spruce: A True Story of Myth, Madness and Greed, John Vaillant, 2006

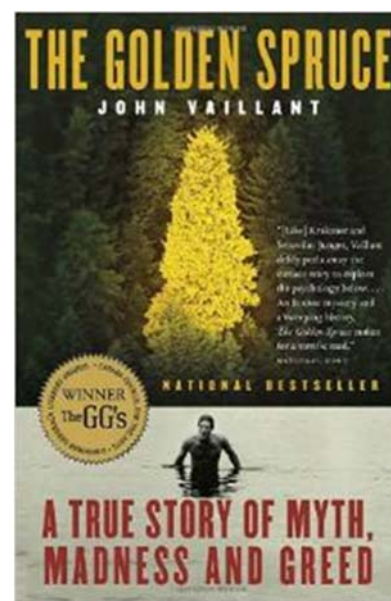
A fascinating story of our human relationship with the natural world. The Golden Spruce was literally golden due to an inability to hold chlorophyll, a condition that should have killed the tree, but instead it grew for 300 years along the banks of the Yakoun river in Haida Gwaii. The tree is old enough to have stood while Europeans made first contact with the many Native nations along the coast, through the times of massive overexploitation of the sea otter but not quite through the excesses of the logging industry. Such a unique tree was also golden in its role in the myth and history of Haida who called it, K'iid K'iyaaas, *Elder Spruce Tree*.

Golden too, in his way, is the man who cut the tree down in protest. Grant Hadwin was a robust, smart and industrious forest engineer, blessed for his hard work with financial success, family and the ability to work in the forests he loved. Hadwin's work however was destroying what he loved and perhaps that is what laid the seeds of madness or, if you like, of epiphany; estranged from his wife and following a stint alone in the woods, Hadwin felt he had a spiritual experience and been given a mission – to wake the world to the depredations of logging.

On the night of 20 January 1997, Hadwin swam the frigid waters of the Yakoun river with a chainsaw kept dry in a plastic bag. With a skill honed over many years, he expertly cut into the 50 metre tall, over 2 metre wide trunk of the Golden Spruce, so undermining its foundation that a stiff wind a few days later brought the massive tree crashing down. In doing so Hadwin made an enemy of everyone in the vicinity, the Haida who revered the tree, MacMillan Bloedel/Weyerhaeuser who had let the tree live in a small "set aside" that masked surrounding clear cuts, people reliant on tourism and environmentalists all over the world.

Before he disappeared Hadwin told a reporter for the Queen Charlotte Islands Observer: "We tend to focus on trees like the golden spruce while the rest of the forest is being slaughtered.... Everybody's supposed to focus on that and forget all the damage behind it. When someone attacks one of those freaks you'd think it was a holocaust, but the real holocaust is somewhere else. Right now, people are focusing all their anger on me when they should focus it on the destruction going on around them."

Hadwin was charged with the crime and, fearing for his life if he took a public ferry or plane, set out in a kayak to his court date; he has not been seen since. Also not seen since is a means of resolving the moral and cognitive dissonance of living in modernity and destroying what we love. This is a moving and informative read from a talented Canadian author who respectfully touches on First Nations history and ethnography, contact hostilities, the rise of Britain as a world power through her navies and a frightening overview of how quickly the logging industry has altered our landscapes.





The Botany of Desire: A Plant's Eye View of the World (2002)

Michael Pollan is best known for his book *Omnivore's Dilemma* and *In Defense of Food: An Eat-er's Manifesto*, where he traces food from the 'farm to the fork' and questions our dependence on monoculture based on only a few species of plants genetically modified to resist pests and/or tolerate pesticides and selected to be transported and processed rather than for taste or healthfulness. The books also examine the impacts of the overproduction of food, corn-based sweeteners, and processed food on our collective health.

The Botany of Desire takes a different path. The book examines four plants that have become widespread because of human interest in them. The argument is that (based on a sort of natural selection) these plants have succeeded from an evolutionary point of view because of the attributes that make them desirable to one of the most prolific species on earth, humans. Pollan wonders throughout: 'who is domesticating whom'?

It is an interesting (and entertaining) thought experiment, and it questions the perspective that humans are somehow separate and in control of nature. Pollan chooses four species to explore from his own garden and through history: these are the apple tree, the tulip, the cannabis plant, and the potato.

The apple is introduced with the image of Johnny Appleseed float-

ing down a river in a canoe catamaran balanced with sacks of apple seeds. John Chapman was given the name Johnny Appleseed because of his eccentric efforts to plant apples in the frontier as the United States expanded into the continent.

Pollan compares the wholesome myth of Johnny Appleseed with the reality that John Chapman was bringing alcohol (cider) into the frontier - it was a good business. Pollan traces the origin of the apple from Kazakhstan through history to the American frontier and finally to the small selection of apples that we grow today for the marketplace. The apple, as such, has become one of the most widespread fruits in the world by luring us with its sweet taste (and its fermented option).

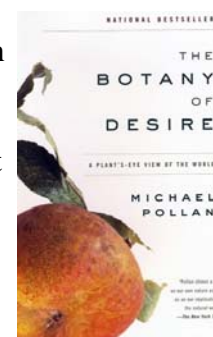
One of the interesting metaphors Pollan weaves through *The Botany of Desire* is that of Dionysus and Apollo: "The Greeks regarded Dionysus as the antithesis of Apollo, god of clear boundaries, order, and light, of man's firm control over nature. Dionysian revelry melts every Apollonian line, so that, as Nietzsche writes, 'alienated, hostile, or subjugated nature ... celebrates her reconciliation with her lost son, man'" (p.37). Where Apollo symbolizes order and control, Dionysus represents the wildness from which order was wrested. Interestingly, Pollan writes, Dionysus was the patron of cultivated trees and connected with the discovery of the apple.

The story of the tulip revolves around aesthetic desire as manifested in the famous tulip bubble in Holland in the mid 1600s. The tulip used its beauty on humans to spread from Turkey around the world.

The success of the cannabis plant in spreading around the world was based on its intoxicating medical and spiritual value (or other high and noble reasons). And Pollan shares its interesting history from Afghanistan and the tropics to the climate-controlled closets of America.

And through the potato Pollan traces the desire for a staple for human populations after being taken to Europe by Spanish invaders of the Incan empire. Through the potato, Pollan explores the impacts of genetic modification to resist pests and the risks of monoculture. Nonetheless, aligned with his theme, Pollan shows how this clever plant used our needs and desires to proliferate around the world.

The Botany of Desire is a light, meandering book - an enjoyable read. The book makes one feel more than a little sorry for those guileless humans as they have been manipulated by apple trees and tulips in the contest for abundance, and dare I say, world dominance. Next time you are in the supermarket, don't be





A leading voice for a healthy and environmentally sustainable community

Box 383 Lethbridge AB T1J 3E9

August 20, 2014

To: Council of Cardston County

From: Braum Barber, Southern Alberta Group for the Environment

Re: Proposed Bylaw No. 664.2014
Rezoning of Agricultural Land to Rural Recreational (NE 1-1-27-W4)

Please accept this letter regarding the rezoning of agricultural land to rural recreation on the land located at NE 1-1-27-W4.

The Southern Alberta Group for the Environment (SAGE) supports the concerns expressed by the Boundary Creek landowners regarding the proposed rezoning and development of a recreational vehicle park and family reunion centre at this location.

The parcel under consideration for rezoning from Agriculture General (AG2) to Rural Recreational (RR) is adjacent to Outpost Wetlands Natural Area to the south and Police Outpost Provincial Park to the east - both of which are key components of the provincial protected areas system for the Foothills Parkland Natural Subregion and are within an Environmentally Significant Area of national significance

(<http://www.albertaparks.ca/albertaparksca/library/environmentally-significant-areas-report.aspx>). Private ranchland north of Police Outpost Provincial Park is under conservation easement to Nature Conservancy Canada because of its environmental significance. Together these properties support significant biodiversity, including foothills fescue grassland, aspen woodland, and wetland ecosystems that provide habitat for several species of conservation concern including Grizzly Bear, Black-headed Grosbeak, Leopard Frog, Western Blue Flag and Conimitella. The region is also home to the Trumpeter Swan, only recently elevated from a

species-at-risk status in Alberta due to the success of the Alberta Environment and Sustainable Resource Development *Trumpeter Swan Recovery Plan* (2013). The plan indicates this region as prime breeding grounds for the Trumpeter Swan – a unique site in the province south of Wetaskiwin (<http://esrd.alberta.ca/fish-wildlife/species-at-risk/species-at-risk-publications-web-resources/birds/documents/SAR-TrumpeterSwan-RecoveryPlan-Mar2013.pdf>).

Maintaining current zoning would support ongoing efforts to maintain rich biodiversity and the recovery of this species.

The parcel under consideration for rezoning is at the headwaters of Boundary Creek, a tributary of Lee Creek and source waters for the town of Cardston and other communities downstream in the Oldman watershed. Any use that leads to significant reduction in streamflow in Boundary Creek and/or contamination of surface or groundwater is disturbing. Current zoning and use of the parcel for livestock grazing is consistent with protecting and providing significant ecological goods and services – biodiversity protection, source water protection, water capture and filtering, carbon capture, livestock production on native range. Change of zoning and use may result in loss or degradation of these goods and services.

The final draft of the *South Saskatchewan Regional Plan (SSRP)* speaks to “Maintaining an agricultural land base [that] recognizes the value of agricultural land for sustainable growth as well as providing an opportunity for expansion of agricultural production and value-added agribusinesses in the region” (p.44). The document also recognizes the need to find a greater balance between economic, social and environmental aspects in decision making, with a greater emphasis on preserving biodiversity through conservation. The SSRP states that a provincial approach for the management of ecosystem services requires that “new methods and strategies must be explored and developed to encourage the provision of a broad suite of ecosystem services by private landowners” (p.66). The current zoning and stewardship of local landowners supports these provincial goals.

The nearby provincial park provides a level of recreational opportunities that is appropriate for the infrastructure available, and is properly managed by provincial regulations. The addition of 150 RV sites and 15 cabins results in a complex that is over three times as large as the camping facilities currently available at Police Outpost Provincial Park. The proposed development will greatly exacerbate traffic and stress existing infrastructure and, as already noted, the additional activity and noise will negatively impact wildlife habitat in the region. Since a private development is largely independent of provincial purview, it becomes more difficult to respond to the negative cumulative effects of development as they emerge.

If the parcel is rezoned, any approval of commercial/private recreation use would need to be sensitive to the significant “natural attributes, natural aesthetics and important scenic vistas” of the parcel as well as Outpost Wetlands Natural Area and Police Outpost Provincial Park and

adjacent private property under conservation easement. Any use would need to limit or avoid compromising these attributes (refer to Schedule 2 Land Use District Regulations for Rural Recreation - RR in Cardston County Land Use Bylaw 653-2013). Careful consideration would need to be given to the source of potable water supply (would the proposed land use require a water licence) and to wastewater management to avoid contamination of surface and groundwater. Should the parcel be rezoned, we suggest that a detailed environmental impact assessment and an area structure plan be required for any proposed land use that may impact current natural attributes of the parcel and surrounding area.

SAGE believes that cumulative effects planning is necessary to conserve the ecosystem services that are a foundation for a healthy society and robust regional economy. Such planning will require support from all levels of government in their decision making, as well as the stewardship of private landowners. The proposed rezoning for the development of a RV park is not supported by the landowners in the region, it is not aligned with conservation goals of the Province of Alberta for biodiversity, and it is not an example of the greater environmental balance acknowledged in the SSRP. Negative cumulative effects on biodiversity, ecosystem services, and the integrity of our headwaters suggest that high-impact developments, such as the one proposed, should be discouraged.

Sincerely,

A handwritten signature in black ink, appearing to read 'Braum Barber', written in a cursive style.

Braum Barber
SAGE