"Never attempt to teach a pig to sing; it wastes your time and annoys the pig ."

Robert Heinlein

November 2015

SAGE Meeting every third Wednesday - November 18th at the Lethbridge Public Library downtown, 7 to 9 p.m.

SACPA Nov. 5th - "Land Use and Shrinking Rivers"; and Nov. 10th "Alberta Environment: What are the Priorities?" See www.sacpa.ca

Climate Change March, Sunday Nov. 28th, 1 p.m. at City Hall. Organized by Greensence.

River Valley Master Plan open house November 24th at Galt Museum (4:30 p.m. to 7 p.m.)

SAGE Waste Backgrounder for Lethbridge

From the report:

"In Lethbridge about 110,000 tonnes of waste is sent to the landfill each year. For the 94,000 citizens of the city, that means there is 1170 kg (2,575 lbs) of garbage disposed per person each year or 3.2 kg (7.1 lbs) of garbage per person each day. Lethbridge citizens throw away about fifteen times our body weight in garbage each year.

In Alberta, annual solid waste disposed in municipal landfills averages about 1120 kg per person and in Canada about 780 kg per person. Canadians produce more garbage per capita than any other country on earth. Alberta disposes the most waste per person in Canada, and Lethbridge disposes more waste per person than the provincial average. We are among the most wasteful people on the planet."

The Backgrounder provides a summary of the sources of waste in Lethbridge, and the composition of the waste stream. It discusses the benefits of diverting waste from the landfill, and the current efforts to do so in the city.

The City of Lethbridge has released plans and timelines to reduce waste. From the report:

"*In July 2015, Lethbridge City Council adopted a community wide waste reduction target of 50% by 2030. The target for the Residential sector is 65% less waste and for the ICI and C&D sectors is 45% less waste disposed in the landfill by 2030.*"

Working together towards this common goal will make Lethbridge a more sustainable community, economically, environmentally and socially. Let's get on with it!

The Waste Backgrounder will be made available on sage-environment.org and environmentlethbridge.ca

Trans-Pacific Partnership and the Environment: Written By Corporations For Corporations

A Wikileaks release of the Trans-Pacific Partnership included the TPP negotiated chapters on the environment. The Wikileaks media release noted: "When compared against other TPP chapters, the Environment Chapter is noteworthy for its absence of mandated clauses or meaningful enforcement measures … The dispute settlement mechanisms it creates are cooperative instead of binding; there are no required penalties and no proposed criminal sanctions. … the Chapter appears to function as a public relations exercise."

The final document is expected to address whaling, endangered species, illegal logging, and restrictions to exporting raw-logs, though there is resistance from some nations to binding agreements.

The TPP is also expected to include an agreement to allow liquid petroleum gas (LPG) exports, without review or national approval, which will encourage more fossil fuel extraction - particularly from shale and coal beds using fracking technologies. The LPG plants require both compression and cooling to liquify the natural gas for storage and transportation overseas, making this a more climate-disrupting fuel.

A further concern with the TPP is the resolution of trade disputes. Labour and environmental laws may be considered a barrier to free trade for which the 'injured' corporation may seek recompense. A recent example of this was a NAFTA decision to overturn an environmental impact assessment that blocked a proposed rock quarry on the Bay of Fundy. The U.S. corporation is seeking damages of up to $300 million from Canadians.

Even though the TPP will clearly have negative impacts on the environment and, therefore, Canadians, this agreement has been negotiated in near complete secrecy (a secret from Canadians, though not from the corporations that constitute 85% of the negotiating committees according to the Washington Post).

By Gum!

We have climate disruption from global warming; acidification of the oceans; food security issues; biodiversity loss; world water scarcity; desertification of arable land … and we have gum.

Based on Andrew Nisker's new film *The Dark Side of the Chew*, gum has a profoundly negative impact on our environment. It is the world's second most common form of litter, and it is estimated that there are over 700 million pieces of non-biodegradable gum coating the streets and sidewalks of Toronto alone.

Gum waste in Toronto weighs over 200 tonnes, and when it is not sticking to the sidewalk or your shoe it is being washed untreated into lakes in rivers. Gum is a 'synthetic franken-food' of plastic coated candy that does not degrade.

Now you know.

Castle Parks Designation Polling Positive

The Citizen Society Research Lab (CRSL), supported by Faron Ellis at Lethbridge College, has released the polling results titled Proposed Castle Wilderness Area Provincial Parks.

Over 80% of respondents agreed with the parks proposal.

The results were generally consistent across all demographic categories: Alberta regions, gender, income ranges, education and age. There were very marginal differences between political alignments, with conservative voters supporting it slightly less than progressive voters.

It can be summarized from this poll that Albertans support the provincial plans to amend the South Saskatchewan Regional Plan to include a new provincial park and wildland park in the Castle area.

AOPA Review Pending

The Government of Alberta ministry of Agriculture and Forestry is opening a review process for the Agricultural Practices Act (AOPA). Based on ministerial direction, a public consultation will be initiated in an effort to develop policy options.

AOPA legislation addresses the management of livestock and manure, as well as processes to administer nuisance claims, including odours and contamination of surface and groundwater.

The Clean Air Strategic Alliance (CASA) will be one of the key stakeholders in the process. SAGE is very capably represented by Ann Baran in this organization.

Environment Lethbridge Vision Meeting

The Vision Meeting for Environment Lethbridge was held on October 29th where the new (and first) executive director of the organization was introduced. Kathleen Sheppard will help consolidate the Community Partners towards a more sustainable future for Lethbridge.

Ben Thibault from the Pembina Institute spoke about the potential for municipalities to reduce greenhouse gas emissions; and Candice Dupre from the Foothills Salvage and Recycling Society described her operation south of Okotoks to divert useful goods and recyclable materials from the landfill. She showed that there is much more Lethbridge can do in this direction.

Interesting Links:

Compendium of the Risks of Fracking	ecowatch.com/
Proposed Castle Wilderness Area Provincial Parks (CRSL)	www.lethbridgecollege.ca
Water and Hydraulic Fracturing Report (Canadian Water Network)	www.cwn-rce.ca/
Foothills Salvage & Recycling Society	fsrsonline.com/
Calgary Community GHG Reduction Plan (2011)	www.pembina.org/

SAGE
Southern Alberta Group for the Environment

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

2052: A global forecast for the next forty years.

It is an interesting exercise to try to predict the future. Jordan Randers was one of the authors of The Club of Rome's 1972 book titled *The Limits to Growth*. Since that time, Randers says, he has struggled with the passive response to the message of the book, which was that we live on a finite planet and that there will be resource and environmental limits to continual growth of the human population and material consumption. This book was written to assuage his concerns.

Randers is a systems-thinker who currently develops computer models for climate issues. The purpose of computer modelling is to simplify the assumptions and to make abstractions in an effort to determine possible trends in complex systems. The assumptions you make determine the results. And it is exactly this aspect of modelling that makes this book so unsatisfying.

Randers takes the current trends on population growth for five groups of countries, evaluates the demographics, consumption demands, energy availability, and other factors to estimate what the world will be like in the year 2052.

He begins the book with some teasers that imply that (in the face of 40 years of inaction since the publication of *The Limits of Growth*) sustainability may not be the goal - but, rather, less unsustainability. Randers then suggests: "Sustainability will come to be identified with survivability" (p.18). At this point I was ready for a real heel-kicker of dystopian prognostication.

But I was to be disappointed. The human population, he argues, will continue to grow but not as much as many others have predicted. We will consume a bit less, but not because we have dematerialized our wants - we consume less simply because there will be fewer people than expected. We will continue to burn fossil fuels to the brink of runaway climate disruption, but the author says the worst will happen after 2052 (and, therefore, not a concern for this book). In summary, until the year 2052, things will be more of the same (only worse).

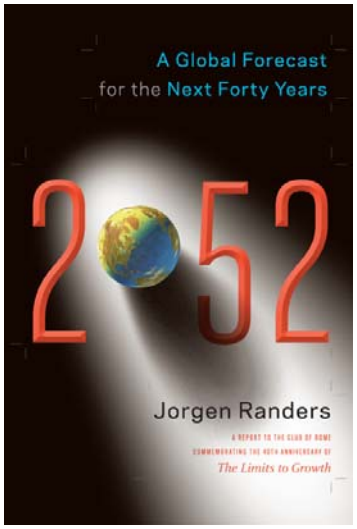
Jorgen Randers seem relieved that his models suggest that we can squeeze out another 40 years, even with a Global Footprint of upwards of three planets by this time. And it is precisely this type of blunder that results from extrapolating trends linearly into the future. Where resource limits actually exist in his model, he waves them away with the potential of new technologies and the mining of old landfills.

Another frustrating aspect of the book is the monetizing of the impacts of our global footprint on world GDP, comparing the costs of non-action to the costs of mitigating some of the worst aspects of resource consumption and the loss of environmental services like waste absorption, sustaining biodiversity and purifying water.

Randers says: "The Stern Commission's estimate in 2006 … assess[ed] the cost as 1% of world GDP … in 2008, increased by Lord Stern to 2% of the GDP. The cost of inaction was at the same time estimated to be a reduction in the GDP around 2100 of 5% - 20%. In 2007 the US economist William Nordhaus estimated the total economic damages from climate change to be between 0% and 10% of the GDP, for temperature increases between 0˚C and 6˚C. … Returning to the cost of mitigation, the famous McKinsey cost curve from 2006 gave an estimate in the range of 0.8% - 1.4% of the GDP in 2030 … extra annual investment cost of 0.5-0.8T$/yr in the years 2020-2030, over and beyond normal investments – again in the order of 1% of GDP. The OECD, on the other hand, in 2011 estimated the cost of achieving a low-carbon future to be 4% of the GDP for its rich member states. … It has been suggested that the cost of securing clean water for all through desalination would be 19 T$. … In the field of energy, the International Energy Agency (IEA) has recently estimated the cost of changing the world's energy infrastructure sufficiently to avoid dangerous global warming. … The accumulated cost from 2010 to 2030 of the 450 ppm scenario was estimated to be around 10T$ higher than for the reference scenario" (p.83) … and so on.

Isn't this one of the problems: to monetize things that shouldn't be monetized? to fetishize money? The author later quotes Nick Robins (seemingly without understanding the point): "But more worrying from a sustainability perspective is the 'missing planet problem' – the disappearance of what was traditionally known as 'land' and now termed 'natural capital.'" (p.260). Yes! How much money will a new planet cost?

What is most disenchanting about *2052: A global forecast for the next forty years* is that there is no discussion of non-linear events - what happens when things begin to unravel - politically, economically, socially, financially, and environmentally? What can be done to avoid, or even prepare for the worst?



SAGE
Southern Alberta Group for the Environment

A leading voice for a healthy and environmentally sustainable community.

Box 383 Lethbridge AB T1J 3E9

October 1, 2015

To: Land Use Secretariat
South Saskatchewan Regional Plan Amendment Consultation

From: Braum Barber
Southern Alberta Group for the Environment

Re: Enhancing the Protection of the Castle Area

The Southern Alberta Group for the Environment (SAGE) commends the Government of Alberta for its commitment to protect the Castle as an important source for clean water in southern Alberta, as water storage for late season streamflow, and as a migration corridor and crucial habitat for wildlife.

SAGE supports the planned amendment to the South Saskatchewan Regional Plan (SSRP) to designate a Castle Wildland and Provincial Park that 'would protect important fish and wildlife habitats and shared international wildlife populations, provide headwaters protection, help to manage and develop recreational and tourism opportunities, and reduce or remove industrial impacts on the landscape.'

SAGE has been actively involved in providing feedback during consultations on the South Saskatchewan Regional Plan (SSRP), and continues to be interested in supporting sustainable policy and practices in the region. Sustaining biodiversity and ecosystem function should be paramount in this plan and will require not only protection, but restoration and rigorous scientific monitoring.

SAGE remains concerned that the SSRP does not adequately address current trajectories of land use for industrial growth, which clearly indicate unsustainable impacts and unacceptable cumulative effects in the region. We believe Albertans realize and accept the idea of limits, and are willing to live within them to maintain healthy and purposeful lives. Furthermore, the document does not fully acknowledge ecological valuation in cost-benefit analyses, and ignores our collective responsibility to reduce greenhouse gas emissions. Emission goals and approaches to reducing them should be specifically stated in the SSRP, and aligned to the outcomes of the Climate Leadership discussion.

There is no clear commitment to preserve native grasslands in the SSRP, nor is there a commitment to reduce the impact on wetlands and riparian areas or to reduce the adverse effects on aquatic ecosystems caused by high quantities of water allocation for irrigation. In fact, the SSRP indicates that there is an expectation for ongoing expansion of agricultural land under irrigation and the development of on-stream storage to mitigate expected water scarcity in the future. Five grassland areas identified for conservation management by the RAC with valley and coulee connectors are ignored in the SSRP, except a vague commitment to maintain intact native grassland and habitat as a high priority, and a nod to species-at-risk protection without a clear plan to maintain and improve habitat.

The Minister of Environment and Parks has recently noted that Alberta is 'on track to having the worst air quality in Canada.' Fine particulate matter is an ongoing (though seasonal) concern in the south, and is substantially related to agricultural activities including intensive livestock operations. SAGE has been actively involved in the Clean Air Strategic Alliance and the Odour Project Team, which has recently completed a Good Practice Guide (available online at casahome.org). It would be appropriate to consider the documents developed through this consensus process in the SSRP.

Timelines to monitor environmental conditions, evaluate data, and assign indicators are much too protracted in the document. We agree that monitoring, program evaluation and assigning indicators of environmental health are important, but much work already exists – notably the Oldman Watershed Council *Headwaters Action Plan 2013-2014*. Once clear goals are established by the SSRP, well-researched indicators like density of linear footprint, native fish populations and invasive species can be initiated immediately. Furthermore, it would also enhance the SSRP if a clear list of indicators be included in the document, with a commitment to invest in scientific monitoring. Data gathered should be independently verified and made freely available to the public. Open and transparent processes of communicating data will be important for the success of regional planning.

A strong regional plan must be clear in stating limits, setting priorities, and providing direction for future decision making. Extant wilderness must be protected and restored, native grasslands must be protected, industrial activity and vehicular use must be curtailed in these areas, habitat connectivity must be established, the headwaters must be protected, and adequate instream flows must be maintained. Off-highway vehicle recreation must be restricted to designated trails, managed and enforced. The current SSRP does not say this clearly enough.

Furthermore, as the Municipal Government Act is under review, it would be timely to assign clear responsibilities to municipalities within the purview of the SSRP: for example, improving water quality from stormwater systems, reducing water abstractions from rivers, reducing the impact of urban sprawl on land-use, improving building standards to reduce energy consumption, and lowering emissions through alternative transportation infrastructure.

SAGE wholeheartedly supports the proposed amendment to the SSRP regarding the designation of the Castle region as park land. We hope that the Alberta Government will take the opportunity to advance other aspects of the regional plan towards achieving a sustainable future for Albertans.

Sincerely,

Braum Barber
SAGE

The History of the Management of the Castle Watershed

The Castle Watershed (CW) is an integral part of the Crown of the Continent which comprises Glacier National Park (Montana), Waterton-Lakes National Park and the Flathead valley (British Columbia) west of the continental divide (see Miistakis Institute for map).

The (CW) has more diverse plants and animals than any other area of Alberta. Since 1954 the area has been managed for multi-use purposes and consequently natural life has declined in the watershed. The ecosystem has suffered from too many human intrusions, interfering in species interrelationships. The following highlights our management of this special place over the last 100 years.

Before 1911: The CW was used by many species as a source of food and by humans also as a source of lumber. Fire, beaver and bison had the greatest impact on the land. The land and rivers were teeming with diverse life forms.

1911: The Dominion Forest Reserve and Parks Act was passed by the Federal Government

1914 – 1921: The splendor of the CW made it an obvious inclusion in the Waterton-Lakes National Park.

1921: The CW is removed from National Parks status. The Federal Minster is believed to have yielded to forestry interests.

1930: Federal Government passed ownership and administrative control of Public Lands, except national parks, to Alberta. The province managed the watershed for forestry and water use.

1921 – 1954: The CW was declared a game preserve. It was teeming with life. The day his game preserve status was lifted some 600 elk were taken by hunters.

1954 – 2015: The Public Lands of the CW have been administered as a multi –use area by Alberta Government agencies. The CW was never granted Special Place 2000 status.

1960 -2015: The following public interest groups have campaigned for enhanced protection of the watershed and restoration of damaged sites: Alberta Wilderness Association; Castle-Crown Wilderness Coalition; Canadian Parks and Wilderness Society; Yellowstone to Yukon Initiative; Crown of the Continent Conservation Initiative; Natural

Resources Defense Council; Sierra Club Canada; Pincher Creek Chapter of the Alberta Fish and Game Association and Castle Special Place Citizen Initiative.

1993: The Natural Resources Conservation Board held public hearings and produced the Vacation Alberta Decision Report. These hearings offered a science based assessment of the area. The Report stated the requirement of the creation of a Waterton–Castle Wildlands Recreation Area, even if the Vacation Alberta Project were not to proceed. The Report also included land-use and management guidelines. The decision was accepted by Government but rescinded 6 months later. The CW continued to be a multi-use area under various management plans without enforcement.

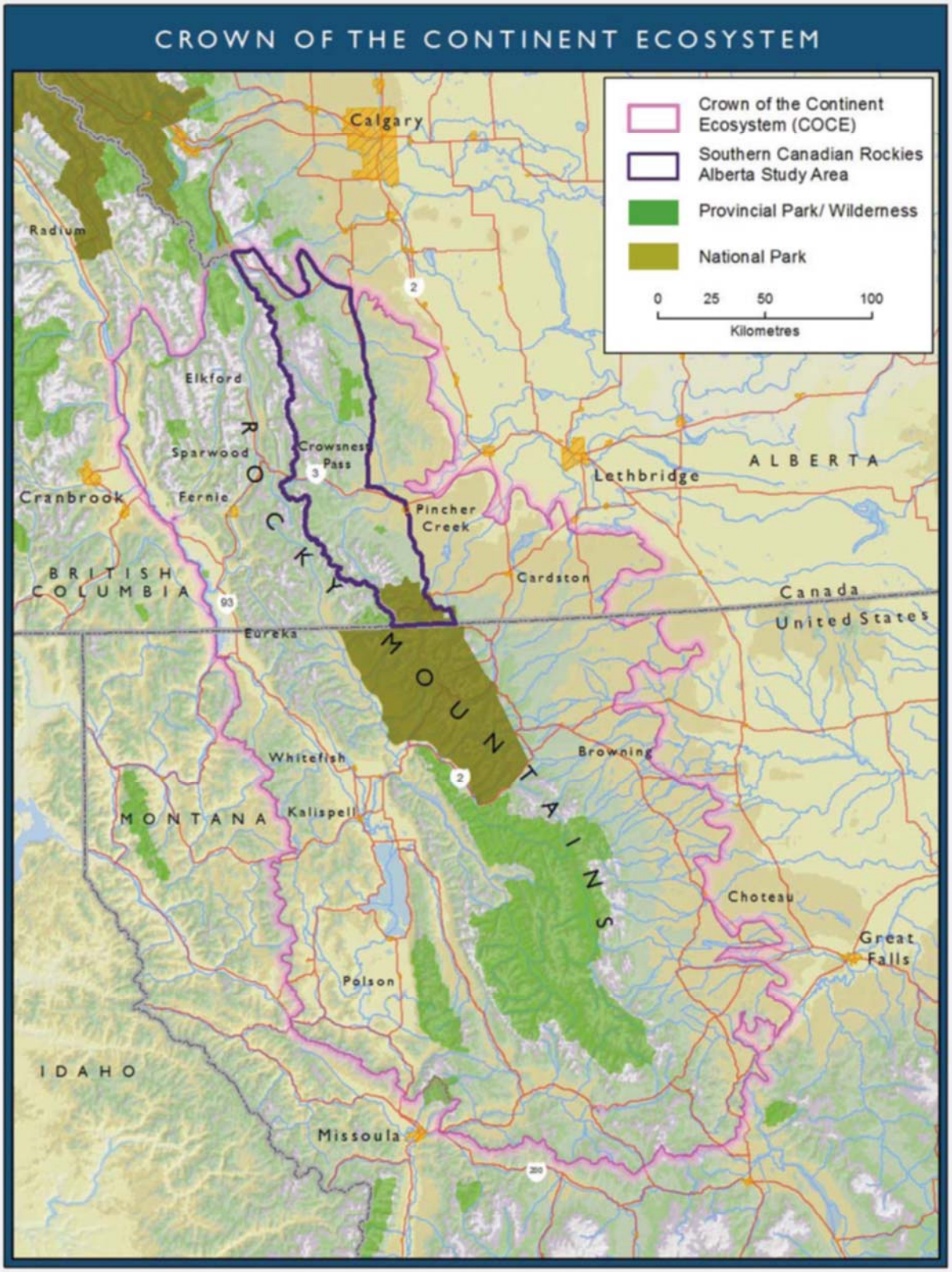
2014: The South Saskatchewan Regional Plan recognized the need for more protection of the CW but offered only small steps: Wildlands Provincial Park for the alpine prime protection zone and Pubic Land Use Zone for the adjacent lower valley areas.

2015, September 4: The Minister of Environment declared the entire CW a Wildlands Park (104,000 hectares, 260,000 acres) with a smaller Provincial Park to the east. Definition of enhanced protection management practices will follow as well as dedicated legislation in the Fall of 2015.

Enhanced protection management practices will give the CW a chance to recover some of its splendor of 60 years ago. What level of protection will the public demand for this public land? How much leadership does the Provincial Government offer to recover some of the former glory of this watershed. For the last 60 years the natural life of the CW had to endure human rules. It is our turn to use our foresight and apply the rules of nature for the CW to regain its health. This special place is not for human use only. We and natural processes are a unit and we need to work together.

Can we do it? Can we get it right this time? This is the last chance for us and the CW.

Klaus Jericho, 1910 13 Ave S., Lethbridge, T1K 0S2


CROWN OF THE CONTINENT ECOSYSTEM
Crown of the Continent Ecosystem (COCE)
Southern Canadian Rockies Alberta Study Area
Provincial Park/ Wilderness
National Park
0 25 50 100
Kilometres
Calgary
Radium
Elkford
Sparwood
Crowsnest Pass
Cranbrook
Fernie
Pincher Creek
Lethbridge
ALBERTA
BRITISH COLUMBIA
Cardston
Canada
United States
Eureka
ROCKY MOUNTAINS
Whitefish
Browning
MONTANA
Kalispell
Choteau
Great Falls
Polson
IDAHO
Missoula