## **VALUES AND VOICES**

Stewardship Priorities for the SOUTHERN ALBERTA FOOTHILLS

Report of the Southern Foothills Community Stewardship Initiative

#### Acknowledgements

Presented in this report are the results of the Southern Foothills Community Stewardship Initiative, a public dialogue led by the Pekisko Group and the Chinook Institute for Community Stewardship.

The report can be downloaded free of charge from the Pekisko Group website: www.pekisko.ca

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This grassroots initiative was supported by the people who live and work in this landscape. November, 2011

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## **Executive Summary**

The Southern Foothills Community Stewardship Initiative grew out of a need expressed by local residents to better understand the value of this landscape in the words of the people who live, work and play here, and to determine their priorities for maintaining healthy ecosystems across the region. From November 2010 to June 2011, landowners, local residents, community leaders, land managers, conservationists and other interested people gathered in community halls and meeting rooms to share perspectives and information. From their collective contribution, a clear sense has emerged of the significance of this landscape, its role in providing ecological goods and services for society, and the imperatives for maintaining healthy, functioning ecosystems.

During the course of this initiative, approximately 300 people participated in a series of eight community forums in the Alberta communities of Turner Valley, High River, Nanton and Cowley, as well as three workshops south of Longview. The dialogue was structured in two phases: one focused on identifying landscape values and priorities; the other focused on developing strategies for maintaining the ecological integrity of the Southern Foothills. The resulting recommendations—intended to inform and provide direction for regional and community planning, land and water management, and conservation decision-making—reflect the perspectives, culture and experiences of forum participants who live in this iconic region of Alberta.

Participants identified eight values of the Southern Foothills landscape as highly significant to society, and vitally important in any land-use decisions. These are: water security, or the reliable supply of clean water produced by a properly functioning landscape; the traditional lifestyle and culture epitomized by ranching and farming in wide-open spaces; the region's renowned aesthetics; its diverse wildlife and ability to sustain it; opportunities for low-impact recreation; clean air; the ability to produce food sustainably; and the ethic of stewardship shared among many of the region's residents.

Six major recommendations for maintaining these values were distilled from the discussions. Residents call for co-ordinated land-use and water planning, with proactive, long-term, integrated plans based on sound science and local consultation. They strongly urge watershed protection as the highest priority for land-use planning and management. Similarly, they call on land managers to foster connected, functioning landscapes, which in turn will help maintain healthy ecosystems and the region's traditional economy and culture.

Foothills residents suggest community education as a way to develop an understanding of stewardship as a shared responsibility, as well as the capacity to carry it out. They advise planners to set thresholds or limits for human activity and development on the landscape, backed up with monitoring. And they want economic incentives to support landowners whose good stewardship helps to provide ecological goods and services to society.

The future ecological integrity of Alberta's Southern Foothills depends upon on a combination of forward-thinking provincial and municipal governance, and ground-up local stewardship. Based on the collective voice of Southern Foothills Community Stewardship Initiative participants, the foundation of sustainability in the region is a healthy, functioning landscape that supports the full diversity of ecosystems and traditional cultures that exist today.

# Purpose and Background: Planning from the Ground Up

The Southern Foothills Community Stewardship Initiative was launched to express a clear grassroots voice to inform land-use planning and management in Alberta's Southern Foothills. Its purpose was to create an open and transparent process for a dialogue of citizens, which would chart a direction for planning and stewardship efforts by provincial and municipal governments as well as non-government organizations, in order to protect and enhance the integrity of the Southern Foothills landscape. The conversations and information-sharing that occurred in a series of community forums and meetings has increased public understanding of the ecological and community value of the Southern Foothills landscape, and of ways to achieve responsible land-use planning and stewardship.

The Southern Foothills region of Alberta provides important ecological benefits to local people and to Albertans as a whole, thanks to its rich diversity of plants and animals, its watershed quality and its ecologically intact landscapes. The project area of the Southern Foothills Community Stewardship Initiative stretches from Highway 22X to just south of Highway 3, and from the Alberta-BC border east to Highway 2. In this region, development pressures from multiple and sometimes conflicting land uses threaten to compromise the relatively pristine status of the landscape. While economic activity provides benefits to Albertans, so does this landscape provide ecosystem goods and services that are important assets to be sustained for current and future generations. The aim of this initiative is to contribute to building the long-term regenerative capacity of the ecosystem in this region to support the full range of biodiversity and natural processes.

The Southern Foothills Community Stewardship Initiative is built upon a foundation of previous studies of the landscape involving area residents, governments and experts—primarily the Southern Foothills Study and its report "The Changing Landscape of the Southern Alberta Foothills" (June 2007). Through broad stakeholder dialogue, public meetings and a public survey, the Southern Foothills Study defined key land-use trends and the cumulative impact of development activity in the region, based on modeling of growth projections and future scenarios. Further work examined how the application of "best practices" in land management and stewardship would affect these trends, and the potential for mitigation of that cumulative impact.

Using the Southern Foothills Study as a starting point, the Southern Foothills Community Stewardship Initiative further engaged the region's citizens, asking them to identify the qualities they value most about this landscape, and to determine strategies to maintain and enhance those values for the long term. The tiered results of these two Southern Foothills citizen-led initiatives creates a strong and clear case for setting priorities for land-use planning and management based on the values identified; creating thresholds for, and limits on, cumulative land uses; and supporting local people and communities in achieving their ground-up vision for sustaining this landscape and the culture that it supports.

What is important to you about the landscape and watersheds of the Southern Foothills?



"When values change, so do the rules we apply to everyday situations. [Values] form the criteria by which we allocate resources, and we apply those beliefs to all facets of our lives."

-- Tim Sanders (Saving the World at Work)

During the fall and winter of 2010-2011, approximately 300 local residents gathered in community halls across Alberta's Southern Foothills to discuss what the landscapes of this region mean to them, and to share ideas about how to maintain their ecological integrity. These collective conversations – part of the Southern Foothills Community Stewardship Initiative – were marked by enthusiasm and a high level of engagement as participants responded to our initial question: What is important to you about the landscape and watersheds of the Southern Foothills?

The primary intent of this public dialogue was to identify what local residents and land owners value most highly about the foothills landscape and the way of life that it supports, and to determine their priorities for sustaining these values. The format of each forum allowed for in-depth conversations, leading to a clear set of "value statements" that form the foundation of this report. For forum participants, who live and work in the Southern Foothills, these are the "bottom lines" – the assets that are vitally important to consider in any future decisions about land use and development in this unique and iconic region of Alberta.

What is important to you about the landscape and watersheds of the Southern Foothills?

The identification of these eight values, or assets, holds the answer to the central question of this initiative – how can society maintain the ecological integrity of the Southern Foothills? If we turn the question around, and ask "how can we ensure that this valuable asset (such as clean air or spectacular scenery) does not deteriorate or disappear?" the answer is clear: in almost every instance, the features that residents of this region value the most will deteriorate with poorly planned development and/or fragmentation of the landscape. Conversely, these features will thrive in a landscape that is healthy, contiguous, and functioning.

#### WATER SECURITY

Participants value the secure supply of clean water that a properly functioning foothills landscape provides. Fresh water is the underpinning of a healthy environment, economy, and society.

#### TRADITIONAL LIFESTYLE AND CULTURE

Southern Foothills residents value the region's character and heritage, epitomized by its vast open spaces and traditional, close-to-the-land cultures of ranching, cowboys and horses.

#### AESTHETICS

Like most Albertans, and Canadians, local residents cherish the breathtaking beauty of the unbroken Southern Foothills landscape: its sweeping vistas of farmland, undulating grasslands, clear streams and grazing cattle, against a backdrop of distant blue mountains.

#### WILDLIFE

Participants value the region's diversity of wildlife species, and the healthy habitat that sustains that wildlife.

#### **OPPORTUNITIES FOR LOW-IMPACT RECREATION**

Participants value the opportunities for low-impact recreation offered in the foothills, primarily on public lands.

#### **CLEAN AIR**

Residents value the region's good air quality.

#### FOOD PRODUCTION

Participants value the sustainable production of food that is possible on the healthy foothills landscape, whether that food is consumed locally or globally. This agricultural economy produces prized "Alberta Beef" as well as other livestock, grains, and small-scale market-garden products.

#### THE ETHIC OF STEWARDSHIP

Participants value the profound commitment to stewardship shared by many area residents. This responsible planning and landscape management for the long term supports the other values that people hold dear: clean water; traditional lifestyles; visual beauty; diverse wildlife; outdoor recreation; air quality; and viable agriculture.

What is important to you about the landscape and watersheds of the Southern Foothills?

### Synergies and Stories from the Landscape

As participants in the public forums explored and identified their values through in-depth conversations, it became clear that the values they hold close are interconnected and mutually supportive of one another. The picture that emerged of the Southern Foothills was that of a complex, functioning landscape resulting from a blend of nature and human culture -- a tapestry made of the grasslands ecosystem interwoven with the knowledge, skill and heart of generations of perceptive and responsive land stewards. And, as with any tapestry, if one thread is broken or unravels, it may threaten the entire fabric.

syn\*ergy noun 1 the interaction or co-operation of two or more [processes] to produce an effect that exceeds or enhances the sum of their individual effects. The following are some examples of the major synergies between residents' values that produce a healthy, functioning foothills landscape.

 The ethic of stewardship – manifested in ecological awareness and a long-term view nurtured by ranchers, farmers and acreage owners – helps to ensure clean water, wildlife habitat, food production and other ecological goods and services on the land.

For example, more than a century of ranching and cattlegrazing in this landscape has been a significant factor in sustaining its native grasslands ecology. Without rotational grazing – which has taken the place of historic grazing by bison – and brush-clearing work by ranchers, the grasslands would be invaded by opportunistic trees and shrubs, such as Aspen and Diamond Willow.

Over time, the loss of grasslands to brush and Aspen could affect the region's supply of fresh water. How? As rancher Francis Gardner notes, "grasslands are better at conserving moisture" than Alberta forests. The extensive fine root systems of grasses and flowering plants, as well as the deep roots of larger plants, efficiently capture what little moisture is available. Vegetation is embedded in a thin, fragile crust of rich organic material that helps water infiltrate the soil, reducing erosion and contributing to water retention. A functioning grasslands ecosystem provides wildlife habitat as well as vital goods and services for humans – maintaining a high yield of food on the landscape and filtering clean water naturally into nearby streams and underground aquifers.

"What we have to realize is that this landscape is meant to be grazed," continues Gardner, who says ranchers must learn to work within the limits of their environment. "That's why the buffalo were here. It functions optimally when grazed responsibly. Ranching and grazing cattle are landmanagement tools." It's a practice that scientists agree with: "Well-managed, agricultural stewardship can support a significant degree of biodiversity," according to one study. (Advancing the Economics of Ecosystems and Biodiversity in Canada, p. 85)

#### What is important to you about the landscape and watersheds of the Southern Foothills?

• Clean water, air and diverse wildlife are therefore made possible by contiguous landscapes with minimal disturbances from infrastructure such as roads and buildings.

It is a delicate balance to protect the rights of property owners, who may want to subdivide their land, while at the same time maintaining the benefits to society provided by contiguous landscapes, notes Suzanne Oel, a councillor for the Municipal District of Foothills. "Our area is a wildlife buffer for Kananaskis Country," she notes. "We have to be aware that the more we develop or use our area, the more we affect K-Country." Oel, who is a wildlife artist as well as an acreage owner, says governments "have to work on protecting landowners' rights while balancing development with the sense for the common good – which may mean that we have to compensate landowners if they provide for a public good."

One town that depends on the goods provided by a contiguous, functioning grasslands ecosystem is Nanton, says John Blake, the town's mayor of 10 years. "Nanton's water depends on it." The town gets its water from three licenced sources: a spring in the foothills to the west, a well, and some from Mosquito Creek. Water from all these sources is filtered and treated, but "water from the hills is much easier to deal with, less costly," Blake notes. "Water depends on our landscape. … Well-managed grasslands hold and collect the water."

• In addition to clean water, these **contiguous landscapes** help to ensure **sustainable food production**, by supporting a healthy agricultural economy in the form of traditional farms and ranches.

The grasslands ecosystem of Alberta's Eastern Slopes "is unique in the world for protein production," says Francis Gardner. "It represents everything that isn't in the rest of the world. It hasn't been degraded or grazed to the point where only a goat could survive." • **Stewardship** by landowners also helps to ensure the **aesthetic beauty** of the land.

• In turn, the **aesthetic beauty** of connected landscapes helps to support a vibrant, **traditional ranching** lifestyle, with its cowboy and horse culture.

 And the attractive aesthetics of a healthy, contiguous landscape provide opportunities for low-impact outdoor recreation, which can in turn bring economic benefits to small communities.

Nanton's mayor, John Blake, notes that tourists and recreationists are looking for unspoiled nature. "If you're going to have some recreational dollars spent in your area, you have to preserve it. That's where tourism dollars come from – they want to see it natural."



What is important to you about the landscape and watersheds of the Southern Foothills?

#### A FUNCTIONING LANDSCAPE: WILDLIFE CALL IT HOME ...

We are blessed with the diversity of the Aspen Parkland on our small parcel -- beautiful meadows of wildflowers, a slough upon which ducks and geese nest, homes for frogs, salamanders and butterflies, grouse drumming and breeding grounds and myriad mammals, from mice, voles, porcupines and skunks through to moose, elk, coyote, cougar, bobcat and bear. Many varieties of birds nest here, or rest for a day or so on their migration. Hawks and eagles soar overhead. Dark skies beguile us at night.

We've learned that it is much easier to leave a natural system alone than be put in the position of trying to restore it. To protect it for the future we placed a conservation easement on the property with Foothills Land Trust. Our hope is that the property will continue to provide habitat for "all the creatures of all the species" that inhabit the Aspen Parkland, and that it be allowed to evolve naturally, without human intervention, unless that intervention is necessary for maintaining the quality of habitat. We also hope that in time our small property will be part of a larger network of protected properties acting as an intact ecosystem – as both a viable habitat and an intact corridor.

-- Gervais Goodman and Janice McDougall, owners and stewards of approximately eight acres near Millarville, Alberta

#### THE LONG VIEW ....

A passionate environmental steward, Francis Gardner is the third generation in his family to operate Mount Sentinel Ranch, founded by his grandfather in 1898 west of Nanton. Gardner considers himself lucky to have been home-schooled on the ranch until Grade 8. A governess put him through his paces, wrapping up the curriculum by April – giving him all spring and summer to explore the land and learn the ranching life. One of the worst things to happen to traditional ranching culture, he says, was the school bus.

Gardner believes it's important to have a 100-year perspective and pass this stewardship ethic to children: "They don't just inherit the land; they inherit a set of values, and a skill set that will enable them to look after the land." His daughter, Sarah Green, is the fourth generation to return to Mt. Sentinel, where she works with her father to produce organic beef, and with her husband to train horses. "I feel very fortunate ... to be able to have this connection to the land. I feel like I am contributing to something bigger than myself, that I'm part of looking after the landscape that will be around for a long time." For the sake of the ecosystem, her father hopes that Alberta ranches remain economically viable, so that successive generations will continue the ranching culture:

The Number 1 thing you have to do is to ensure that these ranches create enough of a living that the next generation will carry on. If that means [society] paying for the ecological services [that ranches provide], then, we better get on with it! Kids that have grown up on these ranches are connected to the land; they understand it. We cannot afford to lose the younger generation. ... If you keep these ranches viable, you keep the ranching culture. That's the multigenerational side of the equation – the long view. If we don't keep ranching – and agriculture in general – viable, then it will morph into something else [such as large-scale industrial farms]. Or these ranches will become multimillion-dollar acreages that are owned by people with no history of connection with the land. A culture will be lost.

-- Francis Gardner, rancher

**stew\*ard\*ship** noun 1 the responsible planning and management of resources (land) so that they survive unspoiled for

future generations.

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**aqui\*fer** noun Geol. a layer of permeable rock able to store significant quantities of water, through which groundwater moves.

## Benefits Provided by the Landscape

In the words of community forum participants....

#### SOCIETAL BENEFITS OF THE SOUTHERN FOOTHILLS LANDSCAPE

During the community forums for the Southern Foothills Community Stewardship Initiative, participants explored the essential services or benefits that the Southern Foothills landscape provides to people and ecosystems as a whole. In the discussions, residents dug deeper into the values that were identified in "What Residents Value," revealing the significance of this landscape in providing essential ecological goods and services for local residents, Albertans and the broader society, as well as important cultural benefits that support the area's economy and lifestyle.

The following words and phrases provide some highlights of those conversations.

### Provision of Ecological Goods and Services

#### WATER

Water (surface and groundwater) is essential to life and supports wildlife and fisheries habitat, food production, and industrial and residential development. This landscape contains the headwaters of relatively pristine watersheds that extend east across the Prairie provinces.

- "Water is life; without water we have nothing."
- "The headwaters are water towers; keep the water towers working."
- "All parts of the watershed work as part of a common ecosystem."
- "Water provides a diversity of ecological goods and services."
- "A healthy watershed is the foundation for all other activities."
- "Ensure water quality and quantity for all upstream and downstream users; every decision should increase water quality and quantity."
- "Water closest to the source is the most fragile and in need of preservation."
- "Protect groundwater-recharge areas."

#### AIR

Clean air is essential to life, and air quality is a factor in the health of rural residents.

#### "Air is life."

"Clean air equals good health; less drain on the health-care system."

"Good air improves quality of life."



## Benefits Provided by the Landscape

In the words of community forum participants....

#### LAND

The land provides the essential services of water storage, absorption and filtration; carbon sequestration and storage; oxygen production; erosion control and healthy soil; wildlife habitat and corridors, and food production. It supports biodiversity and it contains large tracts of rural open space with scenic and recreational value.

- "This is a place where we still have all the pieces and processes of the ecosystems."
- "Native grasslands sustain biodiversity; the ranching economy helps to keep grasslands intact."
- "Rough fescue grasslands are a rare plant community and rich in services when healthy."
- "City water is filtered in the grasslands."
- "This land is a 'food shed.' "
- "The land supports ecological integrity and wildlife connectivity."
- "We have a unique landscape on a worldwide scale."

#### WILDLIFE

The Southern Foothills landscape is rich in its biodiversity, supporting at present the full natural range of wildlife species—an indicator of ecosystem health. Opportunities for viewing and hunting wildlife exist in this area, providing spiritual, recreation and tourism benefits.

"The land provides natural corridors for wildlife, refuges that are not fragmented by human activity."

- "The presence of wildlife and wildlife habitat."
- "Clean streams for fishing; a healthy fishery is a valuable index of watershed integrity."
- "Biodiversity of native species."
- "If we save wildlife we save community."
- "We have day-to-day respect for the native grass and wildlife."

## Benefits Provided by the Landscape

In the words of community forum participants....

### **Provision of Cultural Benefits**

#### **AESTHETICS AND CHARACTER**

The Southern Foothills is an iconic landscape that many Albertans relate to for its world-class viewscapes of mountain vistas and wide-open spaces, relaxed pace, peace and quiet, and opportunities to recreate and connect with nature.

- "A high quality of life."
- "Slow pace and strong connection to the natural environment."
- "Open, natural spaces."
- "Postcard for Alberta."
- "The beauty and function of this landscape is to be preserved."
- "Catalyst for bringing people to our communities."
- "Good therapy; aesthetic landscapes are a health benefit."

#### **ECONOMIC LIVELIHOOD**

The agricultural economy of the Southern Foothills provides for food production, land stewardship, ecosystem services and small-scale tourism, and it supports families in living and working on the land. If managed sustainably, the economy is regenerative and here for the long term.

- "The ability to make a livelihood from the land through the good stewardship of water, vegetation, wildlife and livestock, and in turn provide ecological services."
- "Sustaining a ranching economy."
- "Promote agricultural continuity; protect agricultural lands from further fragmentation."
- "Help ranches remain intact."
- "Maintain sustainable land uses and the viability of ranching family operations."
- "A healthy ecology leads to a happy economy."

#### TRADITIONAL CULTURE AND LIFESTYLE

Traditional culture in the Southern Foothills centres around, and supports, rural living, agriculture, ranching, and small western towns. For many residents, this way of life fosters a strong connection to the land and an ethic of stewardship. The unique people and history of the area attract visitors, and offer inspiration to artists, musicians and filmmakers.

- "We value the historical ranching lifestyle and the local landowners who are stewards of the land." "Stewardship that sustains the ecological integrity." "Maintain our love of the land and love of the lifestyle." "Appreciation of the culture that knows how to steward the land."
- "It is a privilege to live here."

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water\*shed noun 1 a line of separation between waters flowing to different rivers, basins or seas. 3 the area drained by a single lake or river and its tributaries; a drainage basin.

How to maintain the ecological integrity of Alberta's Southern Foothills?

### 1. Integrate Land and Water Planning

Strong support was voiced by citizens who participated in the Southern Foothills Initiative for proactive, long-term integrated plans for land and water that are developed through meaningful, inclusive local consultation and sound interdisciplinary science.

- Planning should recognize the ecological values of land, air, water and biodiversity as the foundation of regional economic, environmental and social well-being.
- All levels of government and government departments, as well as local landowners and stakeholders, should work together with the understanding that land use and water planning and management are interdependent.
- People with first-hand knowledge of an area should be consulted in a meaningful way during the development and/or implementation of integrated plans and strategies for land and water. Planning processes should include an education component, to build the capacity of citizens to understand and engage in planning efforts.
- Sound interdisciplinary science should be the basis for planning processes; good information is vital for the development of effective, adaptive, integrated land and water plans.
- Governments and local citizens should develop an ethic of ecological awareness and stewardship, and apply this understanding to public land as well as private land. Public and private lands are interdependent with regard to ecological processes.

#### Linkages:

- Government of Alberta Land-use Framework. July 2009.
- Alberta Land Stewardship Act. October 2009.



### 2. Protect the Watershed

Maintaining a healthy watershed is a strongly held value for participants in the Southern Foothills Initiative; therefore, it was determined that watershed protection should take priority over industrial, agricultural, residential and recreational land uses.

- To maintain and restore the natural health of watersheds, all parts of a watershed should be managed and protected as a contiguous ecosystem, including its headwaters, tributaries and main stem. Riparian zones, flood plains and wetlands should be included in any watershed management plan.
- Land-management approaches and strategies must include measures to protect water quality and quantity, since effective land management is a critical component of maintaining healthy watersheds and aquatic ecosystems.
- To maintain water quality and quantity in the region, decision-makers should obtain a better understanding of the connections between surface water and groundwater. Governments, non-government organizations (NGOs) and industry should determine: a) the impact of development and human use on surface and groundwater, b) the locations of underground aquifers and what is required to replenish them, and c) the contribution of groundwater to surface water; they should share this data among themselves in a collaborative manner.
- Watershed stewardship by citizens should be promoted and advanced: people should be encouraged to create and use local water-management plans, and to co-operate with neighbouring regions on stewardship approaches for larger, shared river basins.

#### Linkages:

- Water for Life: Action Plan. Alberta Environment, November 2009.
- Municipal Development Plan (MDP) 2010. Municipal District of Foothills No. 31, 2010.
- Municipal Development Plan (MDP) 2003. Municipal District of Ranchland No. 66, 2003.

How to maintain the ecological integrity of Alberta's Southern Foothills?

### 3. Manage for Connected Landscapes

Maintaining connected, functioning landscapes and open spaces was identified by Southern Foothills Initiative participants as a prime way of supporting healthy ecosystems as well as the traditional economies and culture in this region.

- All development—industrial, agricultural, residential and recreational—should be planned and managed to discourage the fragmentation of land, and to allow for, and support, landscape connectivity.
- Native plant species (such as rough fescue grass) must be maintained and enhanced in this region, as they are fundamental to water quality, to the health of ecological processes across the landscape, and to the economic viability of the traditional ranching industry.
- Landscape connectivity should be encouraged through economic incentives that support sustainable agriculture as a land use, while discouraging the conversion of land to non-agricultural uses and unsustainable agricultural practices.
- Roads built for industrial, agricultural, residential and recreational purposes should be limited, to reduce cumulative linear disturbances on the landscape.

#### Linkages:

- Advice to Government of Alberta for the South Saskatchewan Plan: March 2011. South Saskatchewan Regional Advisory Council.
- Intermunicipal Development Plan. Municipal District of Willow Creek No. 26 and Town of Nanton. September 2010.
- Intermunicipal Development Plan: September 2010. Town of Pincher Creek and Municipal District of Pincher Creek No. 9.
- Municipal Development Plan (MDP) 2010. Municipal District of Foothills No. 31, 2010.

### 4. Develop Stewardship Capacity

Community education that promotes an awareness of water and land stewardship as a shared responsibility is a key strategy supported by Southern Foothills Initiative participants.

- Community dialogue and educational forums about land and water issues should be encouraged; these are important methods of generating creative, locally relevant, collective solutions to foster the maintenance of working landscapes and healthy, functioning ecosystems.
- People should be reconnected with the land, water and wildlife of the Southern Foothills region, and its stewardship fostered, through educational exchanges, field experiences, studies and tourism. As an example, outreach programs targeted to Alberta's youth are a powerful way to build lifelong connections to the landscape, as well as an understanding of the value of stewardship.
- Municipal governments, NGOs, community and stewardship groups, developers and residents must make it a priority to increase citizens' capacity to understand and engage in planning and stewardship practices at the local/ municipal level. Among other things, this competencebuilding will educate citizens about land-use planning tools (such as conservation easements, conservation offsets, and transfers of development credits) and stewardship practices in farming and ranching.
- The development of local stewardship capacity will require financial, educational and/or technical support from all interested parties. It will result in a stronger association between local community values and planning decisions; this will help to address a key concern expressed by participants about a growing distrust and disconnect between Southern Foothills residents and government decision-makers.

#### Linkages:

- Government of Alberta Land-use Framework. July 2009.
- Municipal Development Plan (MDP) 2010. Municipal District of Foothills No. 31, 2010.



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*sus\*tain\*able* adjective Ecology (esp. of development) that which conserves an ecological balance by avoiding the depletion of natural resources.

How to maintain the ecological integrity of Alberta's Southern Foothills?

### 5. Set Thresholds for Managing Cumulative Effects

Land- and water-management strategies must include thresholds for the amounts and types of human use and development permitted in this region; these strategies must also provide for monitoring.

- Management strategies should establish thresholds and limit the cumulative impact of human use within any given area, in order to ensure the continued provision of essential ecological goods and services.
- Recreational activity should be managed so that its impact on water, wildlife, native plant species and the land base is minimized or mitigated. In certain areas, it will be necessary to limit recreational use. Before such limits are set, land management agencies should educate the public about the impact of recreational activities, and direct them to appropriate recreation areas.
- Science-based monitoring programs should be instituted to scrutinize human impacts on the landscape, with respect to surface water, groundwater recharge, air pollution and the use of chemicals on farms and acreages.
- Sensitive riparian zones and ecological areas should be identified, and planning guidelines for them determined (as in The Riparian Setback Matrix Model in the MD of Foothills), to keep them healthy and productive.

#### Linkages:

- Advice to Government of Alberta for the South Saskatchewan Plan: March 2011. South Saskatchewan Regional Advisory Council.
- The Riparian Setback Matrix Model, June 2007. Municipal District of Foothills No. 31.

### 6. Develop Economic Incentives for Stewardship

Participants in the Southern Foothills Initiative clearly identified a need for market-based economic incentives for local landowners and residents who steward the land for the provision of ecological goods and services.

- Market-based economic incentives should be created to compensate local landowners who are protecting the ecological goods and services that provide wider societal benefits, including wildlife habitat, water resources, air quality and soil stabilization.
- Governments, landowners and other interested parties should use market-based conservation tools—such as conservation easements and conservation offsets—to support landscape connectivity and discourage ecosystem fragmentation. They should support the agencies that enable the implementation of conservation tools, especially Alberta-based land trusts.
- Municipal governments should create a separate tax category for land under conservation easements, resulting in their reduced valuation for property-tax purposes. This would allow this particular conservation tool to be applied in a greater variety of situations; it would also further enable local governments to implement land and water-management plans.
- Government agencies should phase in a system of public payments for water; the resulting revenue should compensate landowners who are providing essential stewardship of this ecosystem service, and thereby helping to ensure that Albertans have continued access to clean water.

#### Linkages:

- Government of Alberta Land-use Framework. July 2009.
- Alberta Land Stewardship Act. October 2009.





## Summary of Recommendations

How to maintain the ecological integrity of Alberta's Southern Foothills?

#### **1. INTEGRATE LAND AND WATER PLANNING**

Strong support was voiced for proactive, long-term integrated plans for land and water that are developed through meaningful, inclusive local consultation and sound interdisciplinary science.

#### 2. PROTECT THE WATERSHED

Maintaining a healthy watershed is a strongly held public value; therefore, it was determined that watershed protection should take priority over industrial, agricultural, residential and recreational land uses.

#### 3. MANAGE FOR CONNECTED LANDSCAPES

Maintaining connected, functioning landscapes and open spaces was identified as a prime way of supporting healthy ecosystems, as well as the traditional economies and culture in this region.

#### 4. DEVELOP STEWARDSHIP CAPACITY

Community education that promotes an awareness of water and land stewardship as a shared responsibility was identified as a key strategy for maintaining the region's ecological integrity.

#### 5. SET THRESHOLDS FOR MANAGING CUMULATIVE EFFECTS

Land- and water-management strategies must include thresholds for the amounts and types of human use and development permitted in this region; these strategies must also provide for monitoring.

#### 6. DEVELOP ECONOMIC INCENTIVES FOR STEWARDSHIP

Market-based economic incentives are needed for local landowners and residents who steward the land for the provision of ecological goods and services.



### **Moving Forward**

Community voices and expectations...

The Southern Foothills Community Stewardship Initiative successfully engaged a broad spectrum of people from across the region in facilitated conversations to define the values they hold with regard to the Southern Foothills landscape, and their recommendations for maintaining and enhancing its ecological integrity. The high level of enthusiasm and personal involvement in this public dialogue suggests that people in this unique and iconic Alberta landscape are hungry for collective conversations about their quality of life and the quality of the environment that surrounds them. The values that emerged from the dialogue reflect an enduring view of the ecological and economic sustainability of the region.

val\*ue noun 1 the worth, usefulness or importance of a thing; relative merit or status according to the estimated utility of a thing.
6 Plural: the principles or moral standards of a person or social group; the generally accepted or personally held judgment of what is valuable or important in life. Participants indicated that the basis of their future prosperity and well-being is the natural capital of the Southern Foothills, or, in other words, the assets of clean water and air, functioning landscapes, scenic vistas and open spaces, and the full range of species biodiversity.

Many of the Southern Foothills Initiative participants were local people who live on the land and make their living from it. The depth of the conversations in the community forums revealed an experiential understanding of geography, biology, ecology and hydrology, of the interconnections that are fundamental to ecosystem health, and of the dependence of all species on a healthy, functioning landscape. This local knowledge and intuitive understanding of the landscape is of immense value to government decision-makers as they move forward to develop land-use plans and implement management strategies in this area. Furthermore, local residents have expressed a strong desire to have their values and their grassroots knowledge respected and incorporated into land-use decisions that affect their lives.

During the community forums, participants expressed an expectation that land-use planning and management issues will be acted on in a timely manner, to proactively address the increasing growth pressures the region is experiencing. Given the interdisciplinary and multijurisdictional nature of land-use issues, enhanced co-ordination between science disciplines, industry sectors and government agencies is called for, in order to share information, support integrative decision-making, and clarify responsibility for the implementation of stewardship practices.

## **Moving Forward**

Community voices and expectations...

The "Participant Recommendations" outline a number of forward-thinking initiatives to strengthen land-use planning and management in the Southern Foothills, and to build further capacity in the region to implement necessary stewardship initiatives. The recommendations provide an integrated suite of approaches for maintaining and enhancing ecological integrity in the region, including integrating land and water planning; focusing on watershed protection; managing for connected landscapes; developing stewardship capacity; setting thresholds for managing cumulative effects; and developing economic incentives for stewardship. In keeping with the overarching theme of "connection and integration" that emerged from the public dialogue, the recommendations should be viewed as a package of integrated strategies; if implemented together, they will strengthen the regenerative capacity of the landscape and the local economy that depends upon it, and ensure continued enjoyment of this beloved landscape by future generations.

And the bottom line is ... acting with respect for the local people and the landscape that local people value will help to ensure both the long-term prosperity of those who live in the Southern Foothills, and the continued provision of the essential ecological services and cultural benefits that this area offers to all Albertans.

Based on the Southern Foothills Initiative discussions, the following components of governance were identified as critical to good decision-making about locally appropriate solutions for maintaining and enhancing ecological integrity in Alberta's Southern Foothills.



### The Value of Natural Capital

"The conversion of natural landscapes may be inefficient from an economic viewpoint. By destroying natural capital, we must find substitutes for the services this capital provides, services in the form of water purification, waste assimilation, cleansing of the atmosphere, mitigation of greenhouse gas emissions, flood prevention, soil retention, fertility enhancement, alternative recreational services and much more. The substitutes for natural capital may be far more expensive to build and operate than those provided by nature. This is inefficient and costly for society today and for generations to come. As importantly, when decision makers undervalue the benefits from nature, they underestimate the full costs to society of converting land to uses that destroy or degrade natural capital. Left intact, the natural capital from the land may generate far more value to society than alternative land uses. Intact natural capital also provides many intangible and hard to quantify benefits to society (for example, protection of genetic material, aesthetic appreciation, wildlife enhancement and much more). Recognition of these benefits by policy makers is another important step in formulating land use policy."

N. Olewiler, The Value of Natural Capital in Settled Areas of Canada

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