



Southern Alberta Land Trust Society

Recommendations for the South Saskatchewan Regional Plan



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www.salts-landtrust.org



Introduction



Background

Our society in Alberta is in many ways a microcosm of the western world. We have built a culture with a high standard of living based on low population, inexpensive fossil fuels, and abundant natural resources. Yet in southern Alberta we are now dealing with the reality of increasing population pressures, increasingly expensive fossil fuels, and a declining availability of natural resources such as fresh water.

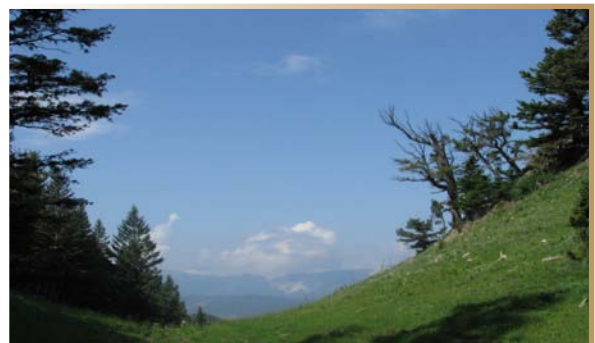
Faced with a changing world, our society must restructure itself in order to stay globally competitive and maintain our standard of living. Much of what we need to accomplish will be supported by technological improvements. Nevertheless, a simple reliance on technology alone will inevitably result in higher societal costs. Compensating for a degraded watershed with water processing technology is possible but will be more costly. We need to understand the valuable contribution made to our standard of living by our ecosystem and make a policy decision to protect these landscapes and the inherent ecosystem services they provide. In other words, we need to create appropriate incentives and regulations under the Alberta Land Stewardship Act to protect these services for today and future generations.

The Challenge

Today, Alberta has the opportunity to become a world leader in enlightened land use policies. In the next few years we can turn world criticism about our focus on hydrocarbon energy on its head by adopting enlightened policies and incentives to protect our natural capital and in particular, our ecological capital. This is an opportunity which, if missed, will not present itself again in our generation. To accomplish this will be difficult. Some people will suggest that to do so can damage our economy. We would argue that to maintain a sustainable and growing economy requires that we steward these critical assets in a way that balances the public good with the rights of landowners.

Planning on Limits

Ecosystem services, sometimes called ecological goods and services, are those benefits to our life, our culture, and our economy that are provided by an intact and healthy landscape. This is something that society is gradually coming to understand and it is simply good policy to protect these services. Yet in the day-to-day decisions on land use made by a variety of governing bodies it is easier to subdivide one more parcel, harvest one more cutblock, allow one more rural bedroom community, and build one more road than it is to establish limits on anthropogenic footprint. Each demand is immediate and the future cumulative effect of all these human activities is vague and indeterminate. The question and challenge for planners is how to measure these cumulative effects and create limits on our landscape footprint to protect the future.





The Landscape

The Southern Alberta Land Trust works to maintain low intensity landscapes in the foothills of Alberta from the Red Deer River south to the Waterton front. This region of Alberta is a land of spectacular scenery and is the province's iconic postcard. It provides important economic, ecological and social benefits far beyond its geographic boundary and, perhaps most significantly, it is the headwaters of the South Saskatchewan River system. This region also harbours one of Alberta's richest diversity of plants and animals. These are assets from which all Albertans benefit.

The increased development in this area has already been felt by the people of Nanton. Their pride in Nanton water was replaced by a new water treatment plant.

The importance of this watershed to the new Province of Alberta, as well as to Canada, was recognized in the Dominion Forest Reserves Act of 1906, which was passed in order to "protect the resource for the purpose of maintaining a continuous supply of timber, to benefit water supply, and to protect the animals, fish and birds within the reserves."



A large part of this landscape is still ecologically intact and relatively unfragmented. This nearly pristine status however, is changing rapidly due to significant development pressure from the energy and forestry sectors, recreational users, intensive agricultural operations, and residential acreages. All of these uses provide benefits to the provincial economy, yet they also bring significant liabilities such as land and water disturbance, habitat fragmentation, and invasive weed infestations.

SALTS was the coordinator and editor of the Southern Foothills Study (SFS) which looked in detail at the cumulative effects of human activity on over three million acres in the foothills area southwest of Calgary. This study showed, among other things, that water quality and quantity flowing from the area is undergoing a slow but steady decline. Much of this area still appears almost pristine but is in fact under significant threat from various forms of development.

In the one hundred years that have passed since that time, much has been studied and discussed about how to protect the special qualities of this place. Again and again its special value has been recognized. Yet today its bountiful natural assets are even more threatened than they were in 1906. A combination of human population growth, economics, the quest for fossil fuels, and the rise of motorized recreation are all contributing to the ecological degradation of this special area. We hope that this current land use planning process will be different and more effective. Time is running out.

The Southern Foothills Study showed that water quality and quantity flowing from the area is undergoing a slow but steady decline.



Recommendations

The following recommendations have been developed from discussions with local people in the southwestern Alberta foothills area, and reviewed by numerous stakeholders and residents.

Recommendation One

Protect the Watershed

The proposed plan should place a high priority on protecting the watershed area along the Eastern Slopes. This priority must be clearly reflected in the proposed plan by the encouragement and support of appropriate land uses such as organic and low-intensity ranching and non-motorized recreation, and the discouragement of high-intensity land uses.

While the importance of water to agriculture, urban areas, industry, and natural biological systems is well understood, there are few regulatory measures that protect the main source of water for southern Alberta.

Aquifers are as important as surface water. Many people and industries depend on our aquifers for their water supply. Many agricultural operations depend on springs to supply water for domestic and livestock use; springs that do not freeze in winter. Protecting these aquifers and underground water channels will require improved knowledge and new rules.



The Southern Foothills Study has shown that water quality and quantity flowing from the foothills area of the Eastern Slopes is on a downward trajectory. Allowing the landscape to be fragmented by subdivision and residential development, excessive oil and gas or other industrial development, motorized off-highway vehicle recreation, intensive livestock operations, or other high-

intensity land uses would continue to degrade the watershed and lead to increased costs downstream. The recommended method of protecting the watersheds of the eastern slopes is to define areas where the dominant land use (DLU - see later recommendation) would be water production. This could be done through consultation with water and geological experts using a clear science-based approach. Further consultation with local communities and local government would then develop rules regarding what other land uses would be allowed within that DLU designation, and which would not be allowed.

Such an approach would also need to take into account ground water and examine the suitability of activities in that DLU area that involve sub-surface intrusion such as mining as well as oil and gas drilling that involves artificial formation stimulation.

Protecting our sources of fresh water will result in social, environmental and economic benefits.



Recommendations

Recommendation Two

Protect Native Fescue Grasslands

The proposed plan should place a high priority on protecting the remaining native fescue grassland and provide incentives for improving and expanding this type of ground cover.

(Rough Fescue is our Alberta grass)

A healthy native fescue grassland plant community is one of, if not the best, surface cover possible for a watershed. A healthy fescue range plant community can repel invasive weeds, the litter layer absorbs and holds rainwater, releasing it slowly, and the black chernozem soil built by this grass processes the water as it seeps into the ground. Rough fescue is recognized as the Alberta grass.

Our grasslands also provide forage and habitat for ungulates and a range of other animal and bird species, some of them at risk. Protecting this just makes economic sense. Damage to these native plant communities will have far-reaching negative effects on the watershed including

more downstream flooding, less aquifer recharge, more encroachment by invasive alien plant species, degraded forage for wildlife, and a less economically viable ranching community. Alberta is home to some of the best and last remaining fescue grasslands in North America. It is a part of our Alberta heritage. And there are other advantages as well.

Fescue grass sequesters large amounts of carbon in the soil using a completely natural process. And, unlike a forest where a fire can put much of that carbon back into the atmosphere as CO₂, a grassland fire leaves the carbon in the ground where it provides a fertile bed for plant regrowth. Considering the economic value of this vegetation type to wildlife and ranching it is a win-win scenario to put in place land use planning measures to protect it.

Fescue plant communities thrive when they are properly grazed by cattle and wildlife. We would recommend that fescue grasslands be encouraged within a watershed DLU area along with low-intensity activities such as appropriate ranching and human-powered recreation.

The use of Conservation Easements to maintain these grasslands on private land is part of the ALSA. This can be accomplished using offset protocols, as well as by funding local land trusts to accept donations of easements, and the use of Heritage Rangeland status on associated grazing leases.





Recommendations

Recommendation Three

Protect Wetlands and Riparian Zones

The proposed plan should adopt the recommendations in the province's draft Wetlands Policy regarding no net loss of remaining wetlands, and create appropriate incentives for improving the quality of both wetlands and riparian zones.

Wetlands are important. This fact is so well known it is hard to imagine anyone that doesn't appreciate their value to the natural world and society. Wetlands provide critical habitat, work with aquifers to hold and clean water, and play a role in preventing flooding. Much progress has been made in educating people about their value yet much is still to be done.

Riparian zones are less well known yet provide many benefits. These river and stream boundaries provide important habitat, reduce erosion and stream siltation, improve aquatic habitat health, and absorb the energy of water during high runoff periods. The Cows and Fish Program was highly effective in bringing landowner awareness of the importance of these zones and initiating programs to encourage their protection.

As part of the proposed plan, wetlands should be recognized as a legitimate DLU designation as well as a preferred land use within a watershed DLU. In addition, incentive programs to protect these areas on private land should be continued and extended.

The use of conservation easements by conservation land trusts is an effective tool in protecting these areas and providing education on their importance. Protecting these areas on private land is an investment that returns benefits to society far beyond their cost. It should not be the financial responsibility of the landowner alone to protect these areas. Government should provide financial support for fencing and other infrastructure that will protect these valuable features.





Recommendations

Recommendation Four

Define Dominant Land Uses within Specific Areas

The proposed plan should map specific areas and assign to each a Dominant Land Use (DLU) designation such that other land uses are strongly discouraged or prevented unless they will cause no damage to the DLU. Along with this the plan needs to provide a clear definition of the various Dominant Land Uses and the value of protecting each one.

Part of the land use challenge over the past few decades is that the planning regime has deteriorated into an anything, anywhere, at anytime structure with few clear rules and lacking a clear set of goals tied directly to the health of the landscape and the value of natural capital. Also, private rural landowners often consider that they have the right to use their land with few restrictions, including subdivision and development. There is strong opposition to a strict zoning regime.

A Dominant Land Use (DLU) concept allows for structured landscape planning system without trying to impose rigid rules on private land. Such a system can provide a conceptual structure to decision makers to guide them in determining what land uses should be approved.

This system starts by defining a set of Dominant Land Uses focused around consideration for what the land itself is best able to support or produce. This is supported by a clear description of the DLU and its value to the landowner and society. Appended to the DLU would be a set of other land uses that either may be able to coexist within the DLU, or would be unlikely to coexist within the DLU. The system would be somewhat fractal in nature and would require explicit boundaries on a map.

While the DLU could be defined at a high level, the structure of subordinate land uses would be developed in consultation with local government and communities. Such a system would allow for an overall land use structure within which local government could proceed to develop Area Structure Plans.

For example, if the DLU was a headwaters, then the list of appropriate subordinate uses might include such things as wetlands, low-intensity grazing, selective forest harvesting and non-motorized recreation. Examples of inappropriate uses within the DLU might include intensive livestock operations, farming that uses herbicides and pesticides, rural residential communities, and industrial operations that require significant road building or threaten streams or aquifers.



Decisions on subordinate uses that are not specifically allowed or disallowed within a DLU could be made based on a set of criteria that stems from the characteristics and value of the DLU. In all cases, development applications for subordinate uses would need to show that their land use would not damage the DLU. This would allow local government some control and flexibility over development in their own jurisdiction. Nevertheless their decisions would need to be subject to due process and an appeal system to ensure they are following the overall LUF.



Recommendations

Recommendation Five

Set Clear Cumulative Effects Limits

The proposed plan should explicitly recognize the need to place limits on cumulative anthropogenic disturbance within explicit spatially defined DLU areas and recommend specific limits for appropriate metrics within each of the areas

Cumulative effects can be defined as the sum total of all anthropogenic and natural influences, both direct and indirect, that operate over time to change how a landscape and ecosystem looks and functions.

Regulatory bodies in Alberta are used to examining new development applications that will affect the landscape by examining that application with little regard to other past, current or future developments.

Bringing the study of cumulative effects into the process of development application approval is an attempt to avoid the fact that most ecosystems, including watersheds, are lost not with a bang but a long drawn-out whimper. That is, a series of decisions each of which appears innocuous at the time can lead to the loss of a critical landscape assets when they are all added together. A Dominant Land Use (DLU) planning methodology would at least provide a structure within which intelligent planning could take place based on limits that are science based and logical.



Placing limits on anthropogenic disturbance requires measurement. Landscape science has already done significant work in establishing the types of metrics that are useful in making density determinations. For example, the listing of Alberta's ESA's (Environmentally Significant Areas) provides several such metrics such as the length of road per square kilometre. This type of science is well enough established to be useful in applying it to land use planning.

Ecosystems and valuable assets such as watersheds are most often lost not with a bang but with a long drawn-out whimper

The concept of a DLU combined with specific cumulative effect limits would provide a logical and definitive framework to guide local governments in making decisions about new developments on their landscape. Without such a framework the province will not be able to effectively balance the demand for new development with protection of key ecosystem services.



Recommendations

Recommendation Six

Place Firm Controls on the Use of Offsets

The proposed plan should place limits on how offsets, including transferable development credits, are used to ensure that areas of high ecological asset value do not become commodities sold to the highest bidder able to create offset values elsewhere. Nor should it be left up to the developer to determine sending and receiving areas.

The concept of offsets can be a valuable tool in land use planning. Nevertheless this land use planning tool can also be easily subverted if it is not constrained by clear goals and strict controls.

We recommend that the proposed South Saskatchewan Regional Plan should include a set of offset guidelines under a DLU concept that would include such things as:

- A clear description of the recommended Dominant Land Use (DLU) within defined areas and why that DLU designation would be assigned to that area.
- A set of rules regarding the determination of sending and receiving areas based on the land use framework goals. That is, the sending and receiving areas should not simply be proposed and defined by the developer.
- Incentives to improve planning within cities and towns to deal with the expected increased density in these urban areas.
- A restriction on the maximum distance between the sending and receiving area. Transferable Development Credits (TDC) work best, and get more community support, when they are implemented by local people for local benefit and the community can see that benefit.
- Encouragement for local land trusts to hold the conservation easements associated with TDC's, plus public financial support for the ongoing stewardship costs of these easements.

The danger of unrestrained use of offsets is that it can deteriorate into allowing development anywhere, anytime so long as sufficient money is promised to provide some form of recompense elsewhere. The offset concept is often implemented to bring private financial resources into the process and compensate land owners for the loss of development rights and, while this is not a bad concept, it must not be allowed to deteriorate into a simple financial transaction without meeting overall landscape and ecosystem planning goals.



With clear goals and proper guidelines the offset concept can be used to great effect in encouraging the planning of land uses that are appropriate to the twenty-first century. We need to think about where we will live, where our water comes from, where we will grow our local food, where we will recreate, and where our industry will be located. By making the appropriate decisions now, our society, our economy and our ecosystems will benefit.



Recommendations

Recommendation Seven

Restrict the Creation of New Rural Bedroom Developments

The proposed plan should recommend that subdivision of land outside of existing city and town boundaries simply for the purpose of creating rural bedroom developments be closely restricted.

The desire of people to move out of urban areas to the country, to flee the cities in a sense, could be considered a testament to how badly we design our cities. Yet most people who move to acreages find in short order that it is not the lifestyle they expect. In addition, it is a lifestyle dependent on constant commuting.



Some people have the means to buy a country residence on a reasonably large parcel of land plus the interest and knowledge to steward that landscape properly but this is not the most common circumstance. People moving to rural areas often live in bedroom residential groupings of multiple small acreages with houses placed cheek-to-jowl on a ring road and each with its own well and septic system. In this latter case the residential groupings are most often populated by people who commute to work elsewhere, have little idea of how to properly steward the land, remove the land from either productive agriculture

or good wildlife habitat, make heavy demands on the local government for services, allow invasive alien weed species to take hold, and consume an inordinate amount of fossil fuel in their trekking back and forth. Such rural bedroom residential groupings are an anachronism in the twenty-first century and arguably the worst type of urban sprawl.



Good land use planning, especially in a time of increasing energy costs, mandates that people should be strongly encouraged to live in cities and towns where they can contribute to creating a real community and a local economy, and where the residences can be efficiently serviced with water, sewer, power and communication links.

The planning answer is not necessarily to completely prevent subdivision of land, but to encourage intelligent use of our land resources and to make the demarcation between biologically productive land and urban settle-



Recommendations

Recommendation Eight

Place a Heritage Rangeland Designation on Grazing Leases Adjacent to Donated Conservation Easements

The proposed plan should recommend that a Heritage Rangeland designation be placed on grazing leases adjacent to a newly donated conservation easement with recognized ecological benefit and which are leased by the same landowner who donated the easement.

A landowner who donates a conservation easement on their land does so because they are committed to protecting the ecological value of that land. By making this donation they forego the potential profit from future land subdivision and development. If this land is in a headwaters, the placing of the easement also represents a sacrifice by the landowner that will benefit society as a whole far into the future by protecting their source of water.

By placing a Heritage Rangeland designation on adjacent grazing leases the government, as a representative of

society, is recognizing the importance of this conservation easement donation and making a similar investment in protection of the water source.

A similar argument applies when the land under conservation easement is important wildlife habitat. The importance of non-fragmented habitat is well understood, especially for species at risk. Thus by placing a Heritage Rangeland designation on adjacent grazing leases the government is recognizing the importance of protecting habitat continuity.





Recommendations

Recommendation Nine

Support the Work of Local Conservation Land Trusts

The proposed plan should recommend that there be public financial support for Conservation Land Trusts based and working exclusively in Alberta. Such funding would operate through the Alberta Land Trust Alliance which is an umbrella organization for all land trusts in Alberta.

The ability of government to set restrictions related to land use intensity on private land is limited. There is a long tradition in Alberta of respecting the rights of private land owners. We support the rights of landowners to gain the benefit of their property. At the same time there has always been a recognition that the good of society is also an important consideration in land use planning. In many cases this difficult balance can be struck in an efficient manner through the use of conservation easements.

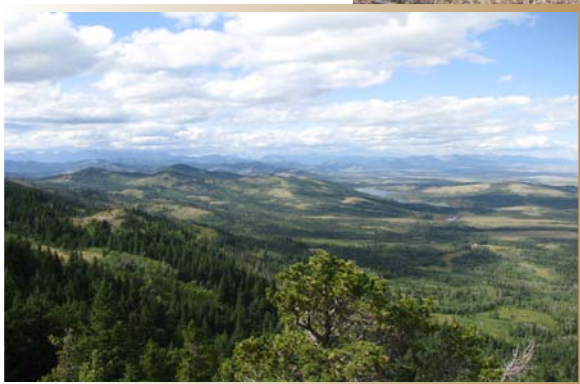
There are many people who are willing to place a conservation easement on their property because they believe in the importance of protecting the land from excessive



development. Many of them work with local land trusts to do this because they want to make a contribution to the future.

Land trusts, which are the recipients of much volunteer time, are willing to accept these donations

and dedicate significant private resources to ensuring that the conditions of the easement are met into the future. Society benefits from this and should be willing to provide assistance to this stewardship.



By providing basic financial support to the placing and stewardship of conservation easements, government is reaping the benefit of low-intensity land use at a minimal cost to the public. Thus investing in the local land trust community makes sense from the point of view of land use planning as well as economic efficiency.



Recommendations

Recommendation Ten

Create a Municipal Tax Category for Conservation Easements

The proposed plan should recommend that the land assessment rules within the MGA and related regulations be altered to include a category for the reduced assessment of land on which the land use is restricted through a conservation easement properly registered on the title.

When a landowner enters into an agreement to place a conservation easement on their land it restricts the type and degree of development that can take place on that property. As a result the market value of that land is reduced and this is the basis for a tax receipt that may be received by the owner as part of the Environment Canada Ecological Gift Program (EGP). The landowner makes this gift to the people of Alberta because they love the land and want it protected for future generations.

With a decrease in market value one would expect that the taxation on that parcel would reflect this fact. However this may not happen. In the case of an agricultural assessment designation the presence of a conservation easement would normally make little or no difference as it is not assessed on market value. However in a case where the land is not used for agricultural purposes it could be assessed at market value. Thus the landowner may be taxed on land value that does not exist.

This situation would most often occur on land parcels which have ecosystem value, are close to urban areas, and may or may not have an associated cabin or house. Land close to rivers or including wetlands with associated riparian zones would be an example.

We would recommend that the Municipal Government Act (MGA) and associated Regulations be altered to include a category for ecologically valuable land subject to a valid conservation easement. Such a change would recognize the contribution made to society by landowners who make a financial sacrifice to protect our environment.





Conclusion

Summary

The process of creating a land use plan that balances public good and private rights is one of the most difficult tasks a government can undertake. We understand this difficulty and respect the people that are working to put it in place. The proclamation of the Alberta Land Stewardship Act has been an important step. Nevertheless, we are also concerned that the history of land use planning in Alberta is marked by great ideas and many starts but no effective planning structure. Thus it is important that this current Land Use Framework process succeed and to that end we are happy to be involved and to put forward recommendations. We appreciate this opportunity and trust that the Regional Advisory Council and the Secretariat will give them serious consideration.



Appreciation

We at SALTS would like to thank all the people who provided ideas and comments on these proposals. In the end it is the local people and their community who will have to make work whatever planning structure is forthcoming, and they have been generous with their time and thought.

SALTS Contact

Questions or comments on this submission can be directed to the Executive Director at SALTS.

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Photo Credits

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Many of the pictures were taken on landscapes protected by conservation easements held by SALTS. We would like to thank the owners of the land on which these pictures were taken for their dedication to the stewardship ethic.