

WHITE PAPER

SPATIAL DATA WAREHOUSE CADASTRAL MAPPING REFORM - A PARTNERSHIP APPROACH

Spatial Data Warehouse Ltd.

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INTRODUCTION

This paper is the second in a series about Spatial Data Warehouse (SDW - readers who require a general overview of SDW are invited to read the paper entitled “Alberta Spatial Data Infrastructure Initiative - An Overview”). SDW is an Alberta-registered, not-for-profit company created on June 25, 1996 to take over and fund digital mapping activities that were previously undertaken and funded by the Government of Alberta. This paper deals with a partnership strategy wherein SDW, in alliance with AltaLIS are proposing an innovative investment strategy to fund the redevelopment and reform of Alberta’s legacy cadastral mapping infrastructure. Key aspects of this proposed strategy include:

1. Significant funding input by SDW and QC Data to improve the cost effectiveness and efficiency of cadastral mapping updating, storage and distribution to all Albertans.
2. Timely regulatory improvements to support modern, more efficient approaches to cadastral mapping updating and, to enable a more equitable distribution of cadastral mapping updating costs.
3. A proposal for a mutually beneficial, SDW/Municipal partnership that would eliminate duplication and enable the more cost-effective use of modern mapping technologies in the municipal land development process as well as other areas of municipal responsibility. Additionally, this partnership would increase the potential for the cost effective development (by municipalities and/or third parties) of standardized, cost-shared municipal mapping and Geographic Information System (GIS) tools and processes.
4. Transition of a dated and expensive tax-payer supported provincial mapping infrastructure into a modern, cost effective, self-supporting mapping infrastructure with vastly improved service delivery, broader and more diversified application and lower end-user cost.

This proposal describes a new form of partnership between the Utility Companies, Government, Municipalities and Private Sector - one that will assure stability, efficiency, continuous improvement and longevity for one of Alberta’s key information infrastructure components - the cadastral mapping system. Beneficiaries of this proposal include all levels of government and the private sector - those who currently and in the future, will increasingly depend upon a continuous flow of standardized, low cost, up-to-date digital cadastral mapping which forms a basic component of modern AM/FM/GIS and related systems. These modern information technology tools are experiencing an explosion of usage as Albertans of all walks of life strive to develop and implement more effective decision support and management tools.

The content of this proposal has been developed by SDW and AltaLIS with assistance and support from a wide range of mapping stakeholders including representatives of Provincial and Local Government, the surveying and mapping industry, utility companies, the resource industry, the data industry and others. The substantial costs associated with evolving SDW to date have been totally borne by SDW and AltaLIS - this level of financial commitment can not and should not be sustained. This proposal describes a partnership invitation by SDW to the Province and Municipalities to act decisively in order to reduce these costs and provide for the efficient continuation of this valuable mapping asset for the benefit of all Albertans.

ALBERTA'S CADASTRAL MAPPING INFRASTRUCTURE – IN URGENT NEED OF RE-DEVELOPMENT

Cadastral mapping consists of digital maps depicting plans of survey that are registered at Alberta Land Titles. These maps cover the entire province with the exception of the cities of Calgary and Edmonton (who maintain their own, very similar products) and, with the exception of Federal and Metis lands. These maps are updated thousands of times each year as new plans of survey are registered with Alberta Land Titles. These maps are fundamental to the orderly planning, development and management of Alberta's future.

Alberta's cadastral mapping has evolved since the 1970's at significant cost to the taxpayers of Alberta. It is estimated that the replacement cost for these data sets would be in the order of \$30 Million. Partnerships with Alberta's Municipalities and Utility companies also contributed significantly to the development of this mapping. Since the initial creation of the cadastral mapping, Alberta Environmental Protection (AEP) continued to keep the mapping up-to-date at significant annual expense while also selling the mapping to the general user community. The foresight and co-operation of the government, utilities, municipalities and the surveying and mapping industry have resulted in what is arguably one of the best digital mapping infrastructures in North America.

In 1996, AEP discontinued its traditional funding of the updating of Alberta's digital cadastral mapping. SDW was formed in direct response to this action in an effort to provide for the continued updating, storage and distribution of Alberta's rural and urban cadastral mapping as well as of some other types of mapping data sets referred to as "topographic" and "small scale" mapping. All of this mapping is "digital", meaning it is stored on computers and, with some re-engineering, can be delivered electronically anywhere in the world.

The participants of SDW are:

- Canadian Western Natural Gas Company Limited;
- TransAlta Utility Corporation;
- Northwestern Utilities Limited;
- The Government of Alberta as represented by Alberta Environmental Protection;
- TELUS Advanced Communications;
- Alberta Power Limited

When SDW assumed responsibility for the cadastral mapping from AEP in 1996, the general expectation was that the costs for updating, storing and distributing the data would be generally offset by the revenues from data users (including the participants). Unfortunately, this was not the case. In fact, the current SDW operation has been losing approximately \$1 Million per year with the SDW participants making up the losses to date.

SDW has identified the reasons for these significant losses to be high operating costs and low revenues. The current SDW operations are virtually identical to those being carried on previously by AEP. In fact,

SDW temporarily engaged AEP to continue to store and distribute the mapping data on behalf of SDW until a new storage and distribution facility could be built. The actual updating of the mapping is carried out by Alberta Land Surveying companies using specifications and processes defined and dictated by AEP. Throughout this period, the updating, storage and delivery of this mapping to Albertans has not been interrupted and prices for mapping have not been increased.

The following table provides approximate cost and revenue information for SDW's cadastral mapping activities during the 1996/97 fiscal year:

Approximate 1996/97 Cadastral Mapping Costs and Revenues

Updating Costs	\$ 1,050,000
Storage/Distribution/Operational Costs	\$ 225,000
Revenues	\$ 264,000
Net	(\$1,011,000)

The updating costs include contracting costs, quality assurance costs and contract management costs. The above costs and revenues fluctuate from year to year based upon the level of Land Titles activity as well as upon the level of mapping user activity.

The participants of SDW started into this venture because of the need to use cadastral mapping in their various AM/FM/GIS systems. The participants are quite prepared to pay their fair share for access to the cadastral mapping. However, they are not prepared to continue to "subsidize" the current, inefficient cadastral mapping system. Additional subsidization of the cadastral mapping data has been provided by revenues from other SDW data sets which themselves, need to be updated and improved - so this additional subsidization can not continue either.

In early 1997, when the extent of the financial situation was fully realized, SDW set out on an extensive investigation to determine if there were ways to increase revenues and reduce costs for cadastral mapping. Investigation on the sales side revealed a lengthy list of problems amongst existing or potential users of the cadastral mapping. These problems deal primarily with inadequate and/or antiquated storage and delivery mechanisms. Very often, these problems were causing people who need cadastral mapping (such as municipalities, government, utility companies, developers, resource companies and others) to simply create their own mapping. The SDW cadastral mapping is valuable but because of these storage and delivery problems, it is being largely overlooked by the people of Alberta who paid for it in the first place.

As can be seen in the table above, the largest cost associated with the cadastral mapping is that of updating the mapping. In its investigations, SDW determined that its costs about \$50.00 on average to introduce a new lot into the cadastral mapping. In looking for more efficient cadastral mapping updating processes, SDW discovered that the City of Calgary had successfully implemented a cadastral mapping updating program which was not only more cost effective than the existing processes being employed by SDW - the "Calgary process" yields better results and supports better service to mapping users.

As described in the paper entitled "*Alberta Spatial Data Infrastructure Initiative – An Overview*", SDW has put in place a plan to extensively re-engineer the way its mapping will be updated, stored and distributed to all Albertans. A primary part of this plan is the re-engineering of the cadastral mapping updating processes to something similar to the Calgary process. SDW currently estimates that the re-

engineering will cost in the area of \$1 Million to implement. To be successful, this re-engineering plan requires certain changes that are beyond the control of SDW, and SDW is looking towards the Provincial Government and the broader stakeholder community for assistance and support in implementing changes that will support the cause. Additionally, SDW's plan contains measures that could be of significant benefit to the municipalities of Alberta. These measures will require the assistance and co-operation of the municipal sector.

The participants of SDW and AltaLIS stand prepared to fund the re-engineering which is required to keep SDW viable. However, since this re-engineering will result in processes that are dependent upon changes at the Provincial level, this proposed investment is at risk without Government and stakeholder support. Furthermore, since SDW has been in a deficit position since its inception, and since the participants are unwilling to continue to finance these losses, broad-based stakeholder support is urgently required.

MAKING ALBERTA'S CADASTRAL MAPPING INFRASTRUCTURE VIABLE

Making Alberta's cadastral mapping infrastructure viable is a matter of adopting new technologies and re-directing certain costs towards their true source. SDW is requesting the timely support of the Government and stakeholders to do this.

THE NEED FOR DIGITAL PLAN SUBMISSIONS TO ALBERTA LAND TITLES:

The vast majority of Alberta Land Surveyors employ modern, computer automated technologies to prepare their plans of survey efficiently in "digital" format. Alberta Land Titles requires surveyors to submit plans of survey to Land Titles in hard copy format for Registration purposes even though most surveyors prepare these plans in digital format. SDW, using processes established years ago by AEP, pays contractors to collect the hard copy plans of survey from Land Titles and then, re-create the digital plans so they can be integrated into the cadastral mapping. This is an expensive "digital - paper - digital" process.

The Calgary process for cadastral map updating recognized this inefficiency and introduced local requirements for plans to be submitted to them in digital format (just prior to registration at Land Titles). SDW wants to do the same - on a province wide, standardized basis. Digital plan submission will allow SDW to re-engineer its cadastral mapping updating processes and reduce its annual cadastral mapping updating costs by an estimated 50%.

Digital plan submission can not be achieved by merely asking all land surveyors for their digital files. There needs to be a standardized format for digital plans of survey as well as a standardized delivery mechanism in order for the process to work. SDW proposes that the most effective way to achieve this is for the provincial Registrar to modify the requirements for plan submission at Alberta Land Titles. These requirements are defined within regulations under the Land Titles Act.

It is proposed that such a modification be implemented by requiring surveyors to submit digital plans of survey to Alberta Land Titles in addition to the currently supplied hard copy plans. Since most surveyors do their work digitally already, this is not seen as a significant hardship for the Alberta Land Surveyors. SDW further proposes that since the City of Calgary already successfully

employs digital plan submissions locally and, since the City of Calgary represents a significant percentage of cadastral surveying activity in Alberta (about 25% in 1996), that the digital plan submission format used in Calgary be adopted for province-wide usage.

Alberta Municipal Affairs - Registries also recognizes the benefits of digital plan submissions at Land Titles as this will allow them to automate their survey plan review and acceptance processes. This activity is one of the many users of SDW's cadastral mapping as new plans of survey are spatially oriented against SDW cadastral mapping. The benefits of digital plan submission at Land Titles to Alberta Registries and SDW are acknowledged in the 1998 Alberta Provincial budget. A strategy for Land Titles documented in this budget is to "*convert the surveys registration function to a digital environment to improve efficiency, address records backup issues, and decrease the costs for updating provincial [cadastral] mapping systems*".

There exists, a mutually beneficial relationship between SDW cadastral mapping and Alberta Registries. The continued availability of SDW cadastral mapping will help enable the efficient migration of Registries' survey registration function to a digital environment. This Registries migration, which will require the implementation of province wide digital plan submission at Land Titles, will in turn benefit SDW by helping it lower its cadastral mapping updating costs. **It is these types of "win-win" partnerships that will help Alberta effectively evolve its information infrastructure into the next century.**

Since SDW is losing so much money in its cadastral mapping updating activities, **SDW has been working with representatives of the Government of Alberta to secure province wide digital plan submission at Land Titles within the July to September, 1998 time frame.** Delays beyond this will require additional funding to keep SDW going and such funding has not been established.

THE NEED FOR AN EQUITABLE DISTRIBUTION OF INFRASTRUCTURE ADDITION COSTS:

Alberta's cadastral mapping is considered to be a critical component of Alberta's information infrastructure. It is used daily in all walks of life to support the economic development and management of the Province. Until 1996, the Province paid for all additions or updates to this mapping infrastructure. SDW believes that people who add to the infrastructure should pay specifically for the cost of their additions as opposed to having all users province-wide share the cost of those additions. This philosophy is similar to that employed by municipalities for new developments - typically, the developer pays for the new additions to the local infrastructure that will be required to support the development.

As has been described, it costs SDW approximately \$50.00 per lot to update or add to the cadastral mapping infrastructure. With significant investment by SDW and AltaLIS, along with help from the province to implement Province-wide digital plan submission at Land Titles, SDW estimates it can lower this cost by about 50% to roughly \$25.00 per lot. SDW is proposing to redirect these remaining cadastral mapping updating costs away from the users and towards those who are introducing the changes to the cadastral mapping infrastructure (developers, utilities, municipalities, as the case may be). SDW calls this the "redirection of cadastral mapping updating costs".

The proposed redirection of cadastral mapping updating costs is a direct result of the government discontinuing its traditional funding of these activities. It must be made absolutely clear that SDW is not proposing to introduce a new cost or fee - SDW is merely proposing to redirect existing costs away from the general community and specifically towards those whose activities introduce the cost. In this way, the party benefiting from the change to the cadastral fabric will pay for the cost of reflecting **their** change in the provincial cadastral mapping. To date, that cost has not been borne by the party benefiting from the change. SDW sees this as an equitable distribution of mapping costs, those introducing a change to the mapping pay for that change while the broader user community will pay for the remaining storage and distribution costs.

The proposed redirection of cadastral mapping updating costs is a direct result of the province discontinuing its traditional funding of provincial mapping activities. Funds generated through the proposed redirection would only be applied to cadastral mapping updating. All other costs associated with re-engineering and operations would be covered through a combination of SDW and AltaLIS funding and financing along with revenues generated from the sale of data licenses.

To date, SDW has absorbed financial losses. However, without the proposed redirection of cadastral mapping updating costs, SDW will not be able to afford to continue. The only other option would be to increase mapping costs to the general public which could yield a price increase of over 100% which is in contradiction with SDW's objectives of making mapping more affordable. In reality, with that level of price increase, it is likely that very few people would purchase the mapping data – opting towards non-standard and possibly lower quality alternatives.

The proposed redirection of cadastral mapping updating costs would allow SDW to “hold the line” on pricing of mapping data. SDW is a not-for-profit company so in the event that it ever achieves a revenue surplus, that surplus can not be distributed to the SDW participants. If SDW's re-engineering efforts are successful in increasing market share, potential revenue surplus can be applied to address items of importance and benefit to all Albertans such as continuous mapping service improvement, fixing of data defects and reducing of data access and usage costs.

SDW proposes that the most efficient way to introduce a redirection of cadastral mapping updating costs would be to adjust the existing, per plan and per lot fee paid when a plan of survey is registered at Alberta Land Titles. This fee is governed by regulations under the Land Titles Act. Currently, the fee is set at \$30.00 per plan plus \$10.00 per lot. It is proposed that this fee would be increased by an estimated \$70.00 per plan plus \$15.00 per lot and this additional amount would be directed to SDW to pay for the updating of the province's cadastral mapping infrastructure. There may be other ways to achieve the same business result but this method appears to be administratively practical as well as equitable.

Under the above proposal, the fee would be collected equally, on a province-wide basis. Therefore, no regional inequities would be introduced and the costs could be passed on through to the ultimate beneficiaries by who ever registers the plan at Land Titles. Under this proposal, fees collected for plans registered in Calgary and Edmonton (which SDW does not map) would be redirected to Calgary and Edmonton to pay for the updating of their own cadastral mapping. SDW proposes that in exchange for this benefit, these cities would consider mechanisms to ensure that their mapping is accessible to all Albertans in ways (pricing, format, delivery mechanisms, etc.) that are consistent with what SDW is proposing.

SDW has been working with representatives of the Government of Alberta to secure province wide re-direction of cadastral mapping updating costs by no later than December 31, 1998. Delays beyond this will require additional funding to keep SDW going and such funding has not been established.

THE URGENT NEED FOR BROAD-BASED STAKEHOLDER SUPPORT

The “regulatory” assistance being proposed above will allow SDW to continue providing cadastral mapping service to Albertans. More importantly, these services will be vastly improved due to the significant re-engineering of updating, storage and distribution which SDW and AltaLIS are proposing to fund. This funding is currently scheduled to start in April, 1998 in order to put the new processes in place as soon as possible. As of April 23, 1998, the Province has provided SDW with agreement in principle that it will work with SDW to pursue the regulatory proposals herein (or some alternative measure(s) which achieve the same business result) will be implemented. However, success is not guaranteed. Wider support from stakeholders will be required to assist the Government and SDW in the timely implementation of these measures.

PARTNERING TO CAPITALIZE ON A VIABLE CADASTRAL MAPPING INFRASTRUCTURE

In the past two years, Alberta Land Titles has experienced a staggering 20% growth in activity. A significant portion of this activity is in the area of new plans of subdivision. Under the Municipal Government Act of 1996, no plan of subdivision may be accepted by Land Titles without first having been approved by a subdivision authority (provided for by the local municipality).

The local approval of subdivisions is a complex and demanding exercise. The timely design and provisioning of infrastructure to support proposed subdivisions is also a complex and demanding exercise. Detailed infrastructure (sewer, water, roads, power, etc.) design and costing commonly takes place as part of local municipal development agreements and is often done far ahead of anticipated subdivision approval merely to “get a jump” on the pace of development (so infrastructure can be ready on time).

As Alberta’s economy continues to surge ahead, local governments and utility companies are increasingly struggling with providing development-related services in a cost-effective and timely manner. Digital mapping and related technologies such as AM/FM and GIS are widely recognized as being invaluable in supporting excellence in local government as well as in utility design and management. The provincial cadastral mapping which SDW manages could be a key asset in co-ordinating these development-support type of activities, in an economical and standardized way, throughout Alberta.

Currently, one of the major uses of cadastral mapping is to support local development. Unfortunately, Alberta’s cadastral mapping has not yet been “tuned” to provide the level of cost effective support which could benefit all players in the development industry. Throughout most of Alberta, when a plan of subdivision application is being made, the “proposed” or “tentative” plan is generally circulated in paper format amongst local approving authorities, commenting agencies, utility design organizations and other players who may be involved. This process is time-consuming and is often fraught with duplication of effort, dated technologies and processes and inaccurate as well as inconsistent representations of what is

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supposed to be the same proposed subdivision plan.

Some municipalities, such as Calgary, have taken the step of requiring developers to submit “digital tentative plans of subdivision” to the local subdivision authority. The municipality will then be able to efficiently integrate the proposed subdivision in with the existing cadastral mapping and expeditiously circulate the result to all organizations who are part of that City’s subdivision approval process - they are creating an integrated, digital subdivision approval process. This not only constitutes an effective use of modern technology, it also ensures that everyone is working off of the same standard representation of the proposed subdivision and no effort is being duplicated to produce non-standard digital representations of the proposed subdivision.

One of the largest barriers to smaller local governments in attempting to employ modern digital mapping and GIS technologies is simply the availability of cost effective and up-to-date mapping data. Another barrier, is the difficulty in integrating these technologies in a standardized manner, within daily activities of responsibility - such as subdivision approval. SDW is proposing a partnership that will see cost effective municipal access to up-to-date cadastral mapping data as well as a standardized process for integrating the mapping data in with the subdivision process. This will not solve problems associated with subdivision approval but it will provide local governments and other stakeholders with a cost-effective tool to assist with the job - good data in standard formats.

Internet technology is changing the world and is available to most, if not all-local governments in Alberta. Computer automated drafting technology is employed by most, if not all developers and surveyors in Alberta. Technically speaking, it is possible that local subdivision authorities could require local developers to submit digital, “tentative” plans of subdivision in a standard format to the authority. If the developer was provided with the appropriate existing cadastral mapping (at no cost), the developer (or, an appropriately equipped appointee) could roughly position a digital tentative plan into the existing cadastral mapping fabric in accordance with a simple, pre-defined standard CAD specification (for layering, symbology, line-work, etc.). The benefits of this approach are numerous and wide-ranging. A digital tentative plan would be created that could easily be distributed (via Internet or other mode) to a number of parties (the municipality, utilities, SDW, etc.) who need it. All would be working quickly and efficiently off of the same standard “tentative base map” – spatially positioned into the surrounding cadastral fabric. If the tentative plan requires changes, the developer again could submit a modified version for re-circulation if necessary.

SDW and AltaLIS are proposing for consideration, a partnership between the Government, SDW, AltaLIS and local planning authorities that would support the establishment of the type of process described above. Under this partnership:

- Local governments would be granted a license to SDW cadastral mapping for local use with no licensing fee attached (currently there is a fee).
- The local planning authority of the local government would require that plans of subdivision be submitted electronically to SDW using the same digital format as being proposed by SDW for plans being submitted to Alberta Land Titles (only in this case, the format would be used for tentative plans). Local governments could make the appropriate SDW cadastral mapping data available to the developer at no charge to enable the cost effective spatial positioning of the digital tentative plan.
- SDW would be allowed to re-distribute the tentative subdivision data to other interested

parties (such as utility companies working towards servicing the proposed development).

- Upon approval of the tentative plan of subdivision by the local authority and acceptance for registration by Alberta Land Titles, SDW would update the cadastral mapping to reflect the newly approved and registered subdivision and make the update available back to the local government for local use with no updating fee.
- Local governments would be entitled to use SDW cadastral mapping under an end user license which would permit unlimited internal use as well as reasonable levels of re-distribution and value added redistribution.

SDW can not afford to pay local development authorities to add these tentative plans to the cadastral mapping. It may be possible for local development authorities to require their developers to create and roughly position the tentative plan into the cadastral mapping as part of local development agreements. From the developer's perspective, the cost of doing this could be largely offset by the benefits of obtaining free access (through the SDW partner municipality) to the SDW cadastral mapping into which they can place their newly proposed developments. Additionally, a number of developers may benefit from a standardized approach across many municipalities as well as access to tentative or proposed development mapping across the province. From a municipal point of view the idea of trading digital tentative plans for unlimited low or no cost access to cadastral mapping for their jurisdiction should be attractive. Where municipalities have difficulty implementing a process with their local developers, there are many Geomatics and Planning consulting companies who would be capable of assisting. From an SDW perspective, this proposal supports the objectives of widely circulating mapping in a manner that benefits a broad range of stakeholders.

As discussed in the paper entitled "*Alberta Spatial Data Infrastructure Initiative - An Overview*", SDW and AltaLIS intend to establish an "External Advisory Group" with representation and input from a wide range of mapping stakeholders. In this case, SDW and AltaLIS envision the establishment of a municipal partnership sub-group which would include representation from municipalities and their associations as well as various third party software companies and suppliers of consulting services. The general objectives of the sub-group would be to work with SDW and AltaLIS to maximize the potential of the proposed partnership for all parties and, to guide the partnership from its introduction and on into the future as data, technology and business needs evolve.

The impact of the above proposal is very significant to local governments. When combined with the other "mapping storage and re-distribution" re-engineering initiatives being proposed by SDW and AltaLIS (see "*Alberta Spatial Data Infrastructure Initiative - An Overview*"), what is being proposed is the delivery of a tool to Alberta's local governments which will go a long way towards seeing effective, standardized, province-wide utilization of modern spatial information technologies. This proposal would:

1. Equip local governments with accurate, up-to-date cadastral mapping at low or, no cost to support a wide range of local government initiatives.
2. Enable the much-needed development and deployment by municipal organizations and/or third parties of "open" (i.e., not vendor specific), standardized, cost effective Geographic Information System (GIS) tools, platforms and processes to help local governments take advantage of modern technologies which currently exist in order to improve decision making and service. These could be implemented with the knowledge and confidence that a continuous, stable and low cost supply of up-to-date cadastral

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mapping data is assured. These could also be implemented in a manner that could be cost-shared by a number of municipalities who use the same base mapping data in the same format.

3. Eliminate the need of municipalities, utility companies, developers and others to engage in duplicative and costly mapping exercises that are counter-productive, yield non-standard products and direct resources away from core business activities. This would save money.
4. Establish a much-needed working partnership model showing how Government, Local Government, Utility Companies and the Private Sector can combine their efforts to eliminate redundancy, make effective use of new technology, reduce costs, improve service and generally contribute to cost effective and efficient local government.

This proposal for a Provincial/Municipal/SDW/AltaLIS partnership is distinct from the other proposals herein which are specifically oriented towards the continuance of Alberta's provincial cadastral mapping program. The other proposals stand on their own and will allow SDW to stand on its own. However, this particular proposal clearly illustrates how the SDW business plan for cadastral mapping can be significantly and easily leveraged through a partnership with the provincial and local governments. SDW is proposing that this partnership would be one that could be introduced over the next year. The cost savings to local governments would be very significant. The cost and complexity thresholds facing smaller municipalities to get into mapping and GIS technologies would be substantially reduced. The potential for the development of cost-effective, standardized "inter-municipal" mapping and GIS tools and processes would be increased. The key is that this would have to be implemented in a standardized way, on a province wide basis in order for the full benefits to be realized by all stakeholders.

SUMMARY – INNOVATIVE PARTNERING FOR SUCCESS

Alberta's cadastral mapping infrastructure is at a crossroads – poised for unprecedented success or, for increasing uncertainty and fragmentation. This proposal by SDW and AltaLIS provides a framework to drive towards success – an innovative partnership that will work towards the "Alberta Advantage" by enabling the continuance and improvement of a key component of Alberta's data infrastructure for the benefit of all Albertans. The SDW initiative embodies a balance of ingredients seen as being essential for making more effective use of public assets such as Alberta's cadastral mapping infrastructure such as:

- private sector investment and management, entrepreneurial vision and high technology application;
- stability of large non-government investing partners with a long term focus;
- improved regulatory framework to make effective use of new technologies and direct costs equitably; and,
- long term asset protection by preserving public ownership.

SDW has spent a significant amount of money and effort trying to preserve Alberta's cadastral mapping infrastructure since June of 1996, when the province discontinued its traditional funding support of this valuable asset. However, SDW can not continue to absorb the significant annual financial losses associated with the dated and costly "status quo" mapping processes. Low revenues due primarily to difficulties accessing and using the cadastral mapping data also contribute significantly to the financial losses.

SDW and its private sector partner, AltaLIS, stand prepared to invest heavily in re-engineering Alberta's mapping infrastructure. This proposed million-dollar investment would employ modern technologies in order to reduce costs and increase revenues by making the mapping more available, affordable and accessible to all Albertans. In order for this re-engineering plan to work, SDW and AltaLIS require assistance from the Government in the form of modest regulatory improvements proposed as follows:

- **Introduction within the July to September, 1998 time frame, of a province wide digital plan submission standard for plans of survey being submitted to Alberta Land Titles;**
- **Redirection of cadastral mapping updating costs by December 31, 1998 (or sooner) by way of the introduction of a fee upon registration of a plan of survey at Alberta Land Titles in the amount of roughly \$70.00 per plan plus \$15.00 per lot and subsequent transfer of fees collected to SDW to pay for updating the cadastral mapping.**

The regulatory improvements proposed above (or some alternate measures which achieve the same result) in conjunction with the re-engineering investment described above will allow SDW and AltaLIS to continue providing cadastral mapping services to Albertans in a vastly improved manner at lower cost to mapping users. This is entirely consistent with the reasons this mapping asset was initially created. Those proposing to invest in this initiative urgently need the support of the Provincial Government as well as the broader stakeholder community to ensure that the regulatory measures proposed above will be implemented within the required time frames so their investment will not be at risk. Without these measures, SDW can not continue to exist.

The above measures will make Alberta's cadastral mapping infrastructure viable over the long term. In order to capitalize on this, SDW and AltaLIS are further and separately proposing an innovative partnership with Alberta local governments. This proposed partnership would enable a significant increase in the effective application of modern mapping and related geographic information technologies in municipalities by making up to date digital cadastral mapping available at low or no cost to Alberta local governments. In exchange, this proposed partnership calls for local governments to make digital tentative plans of survey available to SDW in a standardized format for circulation to other mapping users.

CONTACT US!

A white paper entitled “*Alberta Spatial Data Infrastructure Initiative – An Overview*” provides a background and overview of SDW and AltaLIS.

SDW’s business plan is a unique and unprecedented opportunity to preserve and promote Alberta’s digital mapping/spatial data infrastructure. However, this business plan is not assured. SDW will not be successful without the timely implementation of a province-wide digital plan submission at Alberta Land Titles as well as a province wide re-direction of cadastral mapping updating costs. Although the Government has indicated its willingness to work with SDW, broader stakeholder support of these measures is essential to ensure timely implementation and ultimate success.

We need your help! If you would like more information about SDW or AltaLIS or, you would like to know how to support this important Alberta provincial mapping initiative, you are invited to view our Web site at “WWW.ALTALIS.COM” or, please contact:

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If you would like to order SDW mapping data, please contact our order desk at 403-716-3490.