Rural Municipality of McKillop No. 220

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June 6, 2016

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Senior EA Administrator
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Saskatchewan Ministry of Environment
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The Rural Municipalities of McKillop No. 220 and Cupar No. 218 have jointly reviewed the *Environmental Impact Statement*, Technical Review Comments, and associated documents that describe the proposed *Yancoal - Southey Project, 2015-003*. We believe that significant number of gaps, deficiencies, and inaccuracies exist in the technical analysis that Yancoal has completed to date as described in these documents.

We submit the enclosed statements of concern for your review and response and request that the issues we have identified be resolved prior to any approvals being issued or the project moving forward.

Thank you,

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STATEMENTS OF CONCERN:

YANCOAL ENVIRONMENTAL IMPACT STATEMENT

JUNE 6, 2016

4041.0001.02

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TABLE OF CONTENTS

1.0 GUIDING PRINCIPLES

The Rural Municipalities in the vicinity of the proposed Yancoal Southey Project support the 'Toward Sustainable Mining' guiding principles developed by the Mining Association of Canada (MAC), and adhered to by its members. These principles note the following:

'..our actions must demonstrate a responsible approach to social, economic and environmental performance that is aligned with the evolving priorities of our communities of interest. Our actions must reflect a broad spectrum of values that we share with our employees and communities of interest, including honesty, transparency and integrity.'

The phrase 'communities of interest' is defined to include all individuals and groups who have or believe they have an interest in the management of decisions about operations that may affect them. A number of communities are noted, including governments, which therefore clearly embody Rural Municipalities. The Association goes on to define more specific guiding principles which it will abide in all aspects of business and operations, including:

- *'Support the capability of communities to participate in opportunities provided by new mining projects and existing operations;*
- *Be responsive to community priorities, needs and interests through all stages of mining exploration, development, operations and closure;*
- *Provide lasting benefits to local communities through self-sustaining programs to enhance the economic, environmental, social, educational and health care standards they enjoy.'*

The Rural Municipalities applaud Saskatchewan potash mining companies that are members of the Mining Association of Canada and adhere to these principles. Yancoal is strongly encouraged to join the Association, and adopt these guiding principles as well.

Those Rural Municipalities impacted by the proposed Yancoal Southey Project believe that the 'Towards Sustainable Mining' work of the MAC provides valuable context to a number of principles which frame their relationships with Yancoal. The RMs principles are summarized below:

- Yancoal will maintain full responsibility for avoiding any negative effects experienced by the RMs, and where avoidance is not possible, mitigating and/or providing compensation for the unavoidable effects;

- There will be no net costs incurred by RMs during the planning, construction, operation, decommissioning or reclamation phases of the proposed project;

- Yancoal will leave the RMs and their constituent communities 'better off' during all phases of the project;

- Yancoal and the RMs both recognize and acknowledge that all potential impacts of the proposed project cannot be accurately foreseen or anticipated. Therefore, an ongoing monitoring and adaptive management program is required during all phases of the proposed project;

- Yancoal will engage in open, transparent, collaborative, two-way communication with the RMs during all phases of the proposed project's life. The RMs also commit to this principle;
- Yancoal will work with the RMs through the remaining deliberations regarding the proposed Southey project (including the Saskatchewan environmental assessment process, other

Provincial licensing and permitting, and any relevant Federal processes) to prepare development plan agreements. These agreements will include elaboration of the principles set out above. The agreements must be concluded prior to the onset of construction activities at the proposed Southey project site.

2.0 STATEMENTS OF CONCERN

STATEMENT 1

Many large mining companies in Canada are members of the Mining Association of Canada (MAC). The MAC recognizes the great responsibilities that mining companies have to communities surrounding their operations and to the environment and have noted advancements in the way their members engage with surrounding communities, manage environmental risks and increase energy efficiency at their facilities. MAC member companies demonstrate leadership in the mining industry by engaging with communities, driving world-leading environmental practices and committing to the safety and health of employees and surrounding communities.

The MAC requires members to follow their performance responsibility system 'Towards Sustainable Mining' (TSM). TSM is backed by six protocols that members measure and report their performance against in annual TSM Progress Reports. Each protocol category has six indicators designed to measure quality. The protocol areas are:

- Aboriginal and Community Outreach
- Energy and GHG Emission Management
- Tailings Management
- Biodiversity Conservation Management
- Safety and Health
- Crisis Management Planning

Yancoal is not currently a member of the MAC. We are aware of other mining companies in Saskatchewan that are members of the Association and abide by these measures, including bhp Billiton, Vale, and Western. The RMs request that Yancoal become a full member as a condition of being issued a permit to ensure a high level of corporate social responsibility and to be accountable to the TSM measures.

STATEMENT 2

In 2014 Canada and China signed the Foreign Investment Promotion and Protection Agreement (FIPA). The FIPA ensures that Chinese companies doing business in Canada will operate within the public's best interests. The FIPA maintains that investors located outside of Canada are subject to the same laws and regulations as domestic investors, which includes laws aimed at protecting the environment and honouring best practices for Environmental Impact Assessments. Going forward we request that Yancoal follow the best practices for community engagement, municipal consultation, impact identification, and development agreements that have been practiced by other potash mining companies in Saskatchewan.

STATEMENT 3

Representatives from Yancoal met with councilors, financial staff, and administrative staff from the Rural Municipality of McKillop No. 220 on January 26, 2016. This was the first such meeting between our municipality and Yancoal to discuss their proposed potash mine, despite the fact that Yancoal's *Technical Proposal* for the project was completed nearly one year earlier in February 2015 and the review by the Ministry of Environment began in March 2015.

The RM of McKillop was advised during our meeting with Yancoal that their *Environmental Impact Statement* (EIS) would likely be made available for public review during the late spring or early summer months. The prospective release date coincided with the period when seeding activities generally take

place in our region. As such, the RM of McKillop requested during our meeting early release of the technical components of the EIS that were of most concern to our residents, namely:

- Aggregate usage and availability;
- Supporting infrastructure (water supply, wastewater treatment and disposal, electrical power, natural gas, telecommunications, roads, and rail);
- Domestic and industrial waste management;
- Health, safety, security, and environmental management system;
- Human resources; and
- Socio-economic effects (workforce in-migration, population effects, worker residency, employment and income generation, municipal government financial impacts).

It was in the spirit of partnership that had been touted by Yancoal that the RM of McKillop requested the above noted information. After a number of months passed with no communication we prepared a follow-up letter to Yancoal identifying the information we wished to receive. However, only the aggregate study was provided. A copy of the letter that was sent to Yancoal and their response to the RM of McKillop is provided in **Appendix A**.

This was extremely disappointing to our community and left us with a sense that Yancoal is not truly committed to municipal engagement and collaboration. Our frustration is underscored by the fact that Yancoal is fully aware of the significance of agriculture in our region, as described in Section 4.4.2 of the *Annex V Cultural Environment Baseline Report* where they state, *"Agriculture is an important lifestyle and livelihood in the LSA."*, and Section 16.3.2.1.5 of the *Environmental Impact Statement* where Yancoal identifies that, *"Farming is a common occupation in the rural areas near the Project. In 2011, in the six R.M.s near the Project, there were 1,295 farm operators working on 976 farms including 123 cattle ranching operations, 673 oil seed and grain farms, and 180 other farms."*

We request that going forward Yancoal honour their stated commitment to partnering with our communities such that we are not required to provide comment on any project related items during seeding or harvesting.

STATEMENT 4

The invitation for public comments on the proposed Yancoal potash development was issued by the Ministry of Environment on April 21, 2016. The deadline for written comments was initially set to close after 30 days on May 24, 2016 but was later extended to 45 days with a revised closing date of June 6, 2016. Although the extra two weeks provided much needed additional time to prepare our statements of concern, we feel that this timeframe was unreasonably short for a project of this magnitude, which is expected to have a significant impact on our region over the 100-year time period that it could be in operation, as stated in Section 1.1 of the *Annex V Cultural Environment Baseline Report*.

The individual documents that comprise the EIS are over 3,000 pages long. Our ability to meaningfully review the EIS would have been bolstered had the extension to 60 days been granted as per the letter that the RM of McKillop sent to the Ministry of Environment on April 21, 2016. A copy of this letter is provided in **Appendix B**. Even with 45 days there was a need to read and analyze approximately 70 pages of the EIS per day in an attempt to make informed decisions about the content of the document and develop our statements of concern.

Under ideal conditions this would have been extremely challenging. However, as outlined in the attached crop reports from the Saskatchewan Ministry of Agriculture provided in **Appendix C**, the EIS release coincided with the start of seeding in our region (Crop Districts 6A and 5A). The document couldn't have been released at a more inopportune time given that many of the elected officials, staff, and residents in our region own farms or are employed in the agricultural sector and were preoccupied with seeding-related activities for much of the 45 day review period. As such, our ability to collaborate as a region and conduct a meaningful review of the impacts of the proposed potash development that were described in the EIS was extremely diminished.

Finally, many of our residents have referred to the proposed Yancoal development as a life altering project. The Ministry of Environment advertised that their review of Yancoal's *Environmental Impact Statement* was underway on March 28, 2015. Given that the Ministry had over a year to review the document and had access to technical experts in the Ministries of Economy, Government Relations, Agriculture, Highways and Infrastructure, Health, and the Water Security Agency as noted in the *Ministry of Environment Determination Notice*, we feel that asking the public to conduct a similar review with limited access to third-party technical support in just 45 days was short-sighted, unreasonable, and unfair.

Our municipalities request further explanation from the Ministry of Environment as to why our request to extend the review period to 60 days was denied. We also request that the release date of any future documents requiring public review do not overlap with seeding or harvesting activities.

STATEMENT 5

The Yancoal EIS encompasses multiple projects including the mine sites, mine processing facilities, tailings management areas, mine site infrastructure, off-site supporting infrastructure, domestic and industrial waste management systems, health management systems, safety management systems, security management systems, environmental management systems, and camp development options. The document is complex, not readily understandable, clear, or concise. As written, it excluded many residents of our municipalities from meaningfully participating in its review. We therefore feel that many of our residents did not fully understand the document or the technical comments provided by the Ministry of Environment and as such were not able to develop and communicate their statements of concern within the context of the EIS.

We request that going forward Yancoal present their project related findings in a manner that allows it to be more accessible to the general public.

STATEMENT 6

The factsheets that are included in Appendix B of the *Ministry of Environment Determination Notice* include several comments from Yancoal regarding their commitment to community engagement. They emphasize that, *"Engagement and community involvement is an important part of the Environmental Assessment and permitting process,"* and that, *"The intent of these engagement activities are to: provide information on the Project to potentially affected people and other interested members of the public; to actively seek comments from the general public and First Nation and Métis communities regarding existing environmental and socio-economic conditions in the local area; and document and incorporate public comments and feedback in the Environmental Impact Statement."*

During the January 26, 2016 meeting between Yancoal and the RM of McKillop, Yancoal affirmed to our group that a meaningful, collaborative partnership with regional local governments would be critical to the initial and ongoing success of the project. However, no such one-on-one meeting has taken place between Yancoal and representatives from the Rural Municipality of Cupar No. 218 since 2013, despite their assertion in Section 4.8.6 of the *Environmental Impact Statement* where Yancoal says that discussions with the RM of Cupar are ongoing. It should also be noted that Yancoal extended an invitation to the RM of McKillop and the RM of Cupar to attend their July 2015 open houses per the emails provided Appendix A: Advertising of the *Ministry of Environment Determination Notice*.

However, at no time do we feel that our municipalities were provided with an opportunity to be part of the decision making process. Yancoal has simply provided information about decisions that they have already made without our input. Instead of being engaged in a dialogue, we feel that we have been made to listen. We believe that there has been no discussion or meaningful exchange during the engagement sessions that Yancoal has hosted. We do not feel that we have been sufficiently consulted about the project and assert that our concerns about the potential impacts to our region have not been appropriately addressed at the engagement sessions. We also feel that whenever concerns about the potential impacts of mine development and operations were brought forward to Yancoal at the engagement events they were deflected in favour of touting the assumed economic benefits of potash production.

We feel that Yancoal's efforts with respect to engagement and consultation in our region have amounted to little more than window dressing. The information that Yancoal shared at their open houses was simplistic and superficial and seemed to be presented with the intention of creating a favourable impression of their proposed project with the residents in our region. We believe that Yancoal's approach to engagement of decide, announce, and defend (DAD) undermines the intent of the Ministry of Environment's requirement for public participation. Our belief is that Yancoal has conducted the sessions with our municipalities strictly as an end to their permit approvals process rather than as a means to collaborate on decisions about their proposed development. We assert that the DAD method of engagement that has been used by Yancoal is not suitable for situations such as this where a wide range of technical, social, cultural, and economic factors influence the proposed development and the various possible aspects of and alternatives to it.

A meeting was held between the Rural Municipalities of McKillop, Cupar, Longlaketon, Touchwood, and Last Mountain Valley in the Village of Bulyea on May 16, 2016 to discuss the potential regional benefits and impacts of the proposed Yancoal potash mine. Elected officials from the RMs of Prairie Rose and Dufferin were invited to this meeting to share their experiences working with K+S Group and BHP Billiton on the potash projects in their respective municipalities. Both Prairie Rose and Dufferin reported that their relationship with the developers in their regions had been overwhelmingly positive throughout their respective projects, which included participating in meaningful discussions with the mining companies about their concerns prior to the EIS being submitted to the Ministry of Environment for approval. We strongly feel that Yancoal's approach to consultation with our municipalities could have been better, based on other communities that have had positive experiences working with other potash companies in Saskatchewan.

Based on the feedback from Dufferin and Prairie Rose our preferred community consultation approach is the engage, deliberate, and decide (EDD) method. We feel that Yancoal should have taken this approach at the onset of the project. Yancoal's stated commitment to engagement would have been more genuine had they positively and proactively engaged our elected officials, staff, residents, and rate payers to discuss their concerns and needs regarding the proposed project. Better decisions typically result from careful consideration of a wide range project issues that are identified by a diverse set of stakeholders and people from different sectors of the general public. The EDD approach would have also given Yancoal the opportunity to develop a shared understanding the complexity of the proposed project in the context of our regional concerns instead of simply telling us what they already decided was going to be built in our region. Additionally, this approach would have given our municipalities the opportunity to be included in developing innovative and comprehensive solutions to having a mine site operate in our backyard.

We therefore request that prior to project moving forward that the Rural Municipalities of McKillop and Cupar, along with the other affected municipalities in our region, be re-engaged by Yancoal so that an open and honest discussion about the potential benefits, impacts, and mitigative measures can be discussed and agreed to prior to any development occurring.

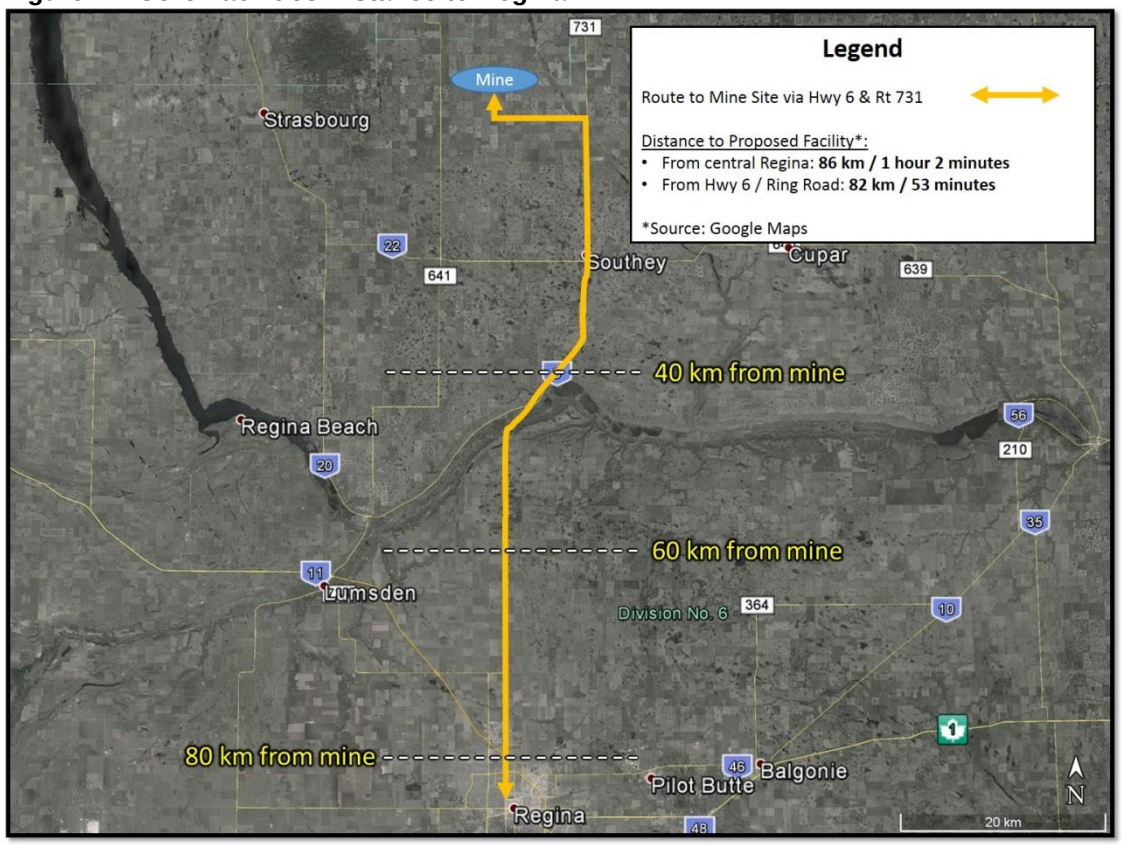
We also take issue with the heavy handed approach that Yancoal has taken at the Inter-Municipal Advisory Committee (IMAC) meetings that they speak to in their letter to the RM of McKillop, which is provided in **Appendix A**. The invitation list has been generated by Yancoal, the agenda for these meetings has been set by Yancoal, the meetings have been chaired by Yancoal, the discussion has been guided by Yancoal, and any deviations from Yancoal's promotion of regional benefits have been dismissed.

Yancoal also communicated their disappointment to our municipalities by telephone that we chose to meet as a region on May 16, 2016 to discuss the project without their involvement. Going forward we request that any future IMAC meetings be led by the participating municipalities so that we can more effectively voice our concerns about the potential impacts of the project in our communities as development proceeds.

STATEMENT 7

Yancoal states in Section 1.1 of the *Annex V Cultural Environment Baseline Report* that the proposed potash development is located approximately 60 km from Regina. According to Google Maps the core facilities are located over 80 km away from central Regina (see **Figure 1** below). This is a more realistic distance from the site to consider, as employees who choose to commute from Regina are likely to reside in neighborhoods distributed throughout the City.

Figure 1 – Core Facilities Distance to Regina



We therefore request that prior to any permit being issued that Yancoal resubmit their EIS to the Ministry of Environment and analyze the impacts that their proposed project will have in our region based on the true distance of the core facilities from Regina.

STATEMENT 8

Yancoal has assumed that 85% of the permanent workforce at their mine will live in Regina and commute to the site each day. They presume that the remaining 15% of their permanent workforce will live in surrounding rural areas. Section 4.4.3 of the *Annex V Cultural Environment Baseline Report* states that, *"The LSA is within a reasonable commuting distance from Regina."* Additionally, Section 16.4.2.2 of the *Environmental Impact Statement* states that, *"Most (85%) traffic is expected to travel north on Highway 6 and turn west on grid road 731 to reach the Project. A small portion of traffic (5% each) is expected to travel from the west and east on grid road 731 or from the north on Highway 6 (i.e., heading south)."* Section 16.5.2.2 of the *Environmental Impact Statement* also states that, *"A small number of workers may relocate to communities or acreages north of Regina and closer to the Project."*

The basis for this trip and corresponding population distribution is presented in Section 4.2 of the *Traffic Impact Assessment* where it is said that, *"The directional distribution of trips generated by the proposed development was estimated based on knowledge of surrounding areas."* The RMs of McKillop and Cupar

were not directly engaged in the traffic impact assessment process and we take issue with the population location assumptions for the following reasons:

a) Both Prairie Rose and Dufferin reported at our May 16, 2016 inter municipal meeting that although a number of mine employees commute from nearby cities, they estimate that the percentage of mine employees that live outside of their respective major service cities is greater than 15%. Both municipalities indicated that they have experienced noteworthy increases in their town, village, hamlet, and acreage populations since mine development was undertaken in their regions. Based on this feedback we expect to see similar population location trends with the proposed Yancoal mine.

b) Last Mountain Lake, which borders a number of municipalities in the study area, is a significant resort and recreation attraction. Yancoal also recognizes this, stating in Section 16.4.2.2 of the *Environmental Impact Statement* that, *"Tourism and recreation is widespread in the socio-economic LSA."*, *"Last Mountain Lake is a major tourism destination in the area and has cabin development."*, and, *"Individuals who permanently relocated to the socio-economic LSA are expected to take advantage of tourism and recreation opportunities in the area."* Resort communities within the RM of McKillop include:

- Collingwood Lakeshore Estates
- Maple Grove
- Uhl's Bay
- Island View
- Sunset Resort
- North Colesdale Park
- Colesdale Park
- Green Acres
- Spring Bay
- Gibb's Beach
- MacPheat Park
- Glen Harbour
- Mohr's Beach
- Shoreline
- Clearview Resort
- Sorensen Beach
- Heritage Valley
- Pelican Pointe
- Sunset Cove
- Sun Dale Beach
- Alta Vista
- Shore Acres
- Saskatchewan Beach

We expect that a number of permanent mine employees will choose to live at these developments, either year-round or on a seasonal basis. The locations of these developments is shown on the map provided in **Appendix D.** We also anticipate that new developments along Last Mountain Lake may be required as a result of the increased population in the region that is associated with the mine, which could result in additional Yancoal workforce living west of the mine site.

c) Based on our assertion that core facilities are located 80 km away from central Regina, we expect it will take approximately one hour of commuting to access the site from the center of the City under ideal driving conditions. The result is approximately two hours of driving each day per employee who chooses to live in Regina under good weather and road conditions. During snowfall events or other adverse weather conditions the two hour commute could become much longer. A one hour, one way commute is not typical for residents of Regina. According to Statistics Canada information provided in **Appendix E** the average one-way commute time for workers in Regina is currently only 17.3 minutes. Only 4.3% of workers commute over 45 minutes one way to work. We do not feel that it is realistic to expect that 85% of the workforce, which represents hundreds of people, will choose to drive two or more hours per day to work at the proposed mine site. Given that the 100 year life span of the mine we anticipate that the long-term employment situation will most likely result in many mine site employees choosing to live outside of Regina so that they are closer to the mine and their commuting time is reduced.

d) The Highland Valley Copper (HVC) mine in British Columbia is located about 80 km from Kamloops within the boundaries of the District of Logan Lake and is linked by the 4 lane divided Coquihalla Highway for 45 km, and a two lane highway for the remaining 35 km. The mine employs approximately 1,000 people and less than half of the employees live in Kamloops, with

more than half living in the communities of Logan Lake (20 km from the mine site with a population of approximately 2,000) and Ashcroft (40 km from the mine site with a population of approximately 1,500).

e) Additionally, the most recent census data from Statistics Canada provided in **Appendix F** states that 33% of the population of Saskatchewan is rural, with rural population referring to people living outside centers with a population of 1,000 and outside areas with 400 persons per square kilometer. Given the information presented above we feel that this breakdown will be more reflective of the demographics of Yancoal's mine site employees.

Based on the feedback provided by Prairie Rose and Dufferin at our inter-municipal meeting, the information published by Statistics Canada, and the demographic analysis of mine employees from Highland Valley Copper in British Columbia we take issue with the population distribution assumptions that Yancoal has made. We believe that Yancoal has underestimated the number of their employees who will choose to live in smaller communities and on acreages, which will have a significant impact on the assumptions and stated impacts to municipalities that have been made by Yancoal throughout their EIS.

We therefore request that prior to any permit being issued that Yancoal resubmit their EIS to the Ministry of Environment and analyze the impacts that their proposed project will have in our region based on the likelihood that less than 85% of their permanent workforce will choose to reside in Regina.

STATEMENT 9

The Yancoal EIS quantifies the number of employees it expects to hire during development, construction, and operation of the mine and the indirect and induced employment effects in Section 16.5.1.2.1 and Section 16.7.2.21 of the *Environmental Impact Statement*. Section 16.5.1.1 of the *Environmental Impact Statement* states that, *"During construction, labour requirements will peak at approximately 2,200 in 2017 and 2018, and average 1,500 employees."* Also that, *"During operations (beginning in 2020), the Project will employ approximately 350 workers."*

According to the April 2013 Labour Market Bulletin provided in **Appendix G**, *"Natural Resources Canada estimates that for every job created at a mine, four jobs are generated elsewhere."* Based on the projections provided by Natural Resources Canada there could be an additional 1,400 workers that are employed by the various spin-off businesses that are needed to support the operation of the mine. This is significantly less than Yancoal's assertion that, *"The workers (direct, indirect, and induced) who permanently relocated with their families, estimated to equal a population increase of approximately 1,042 people."*

We expect that a number of these people who are employed in spinoff businesses (and their families) will choose to live in our municipalities, which will greatly impact our existing community infrastructure and the existing regional transportation system. We request that Yancoal include the impacts of these individuals in their EIS prior to a permit for the proposed project being issued.

Section 16.4.2.3.2 of the *Environmental Impact Statement* also asserts that, *"A non-resident Project workforce that relocates to the socio-economic LSA can place increased demand on housing, infrastructure, and services."* Similarly, Section 16.6.2 of the *Environmental Impact Statement* says that, *"uncertainty exists about the effects of the Project workforce on community services and infrastructure, in large part because the workforce that relocates permanently could stay in a variety of communities."* Also that, *"If a larger portion of workers choose to live outside of Regina, this will change the distribution and magnitude of residual effects on community services and infrastructure."*

Given the rationale provided above we expect that significantly more than 15% of Yancoal's permanent workforce, and a similar percentage of the corresponding spin-off business employees will choose to reside in towns, villages, hamlets, and acreages in our municipalities. Although we are excited to welcome these prospective new residents and their families to our communities, we are deeply concerned about the impact that the additional population will have on our existing community infrastructure, including the following:

- Transportation system condition and capacity;
- Raw water system condition and capacity (i.e. aquifer production rates);
- Raw water supply system condition and capacity (i.e. well production, pumping, and transmission capacities);
- Water treatment system condition and capacity;
- Potable water storage condition and capacity;
- Distribution system condition and capacity (i.e. pumping and transmission);
- Sanitary sewer system condition and capacity (i.e. collection and transmission);
- Wastewater treatment condition and capacity (i.e. lagoons)
- Treated wastewater effluent disposal area condition and capacity (i.e. treated lagoon discharge areas);
- Solid waste and recycling collection and storage condition and capacity (i.e. landfills and/or transfer stations);

We are also concerned with potential changes to stormwater management practices in our municipalities. The *Environmental Impact Statement* says that, *"The Project will result in changes in local flows, drainage patterns (spatial distribution), and drainage areas due to the exclusion of the core facilities area from the natural drainage system, and for surface flows, drainage patterns (distribution), drainage areas, and waterbody or stream morphology due to ground subsidence."* We request that Yancoal assess the impact that these subsidence induced changes to stormwater management will have on our surface water pumping costs, particularly in consecutive wet years.

As the population in our region grows municipal infrastructure usage rates will increase correspondingly. Both the condition and the capacity of our existing infrastructure will therefore deteriorate more quickly than it would have under existing usage rates. This fact is underscored by Yancoal's comments in Section 16.7.2.2 of the *Environmental Impact Statement* where they acknowledge that, *"residual effects on community services and infrastructure are considered irreversible, because once population increases, the system will not return to what it was originally."*

Yancoal also acknowledges in 16.5.2.2.3 of the *Environmental Impact Statement* that although their construction camp will accommodate 1,500 workers, *"At peak, the Project will require 2,200 workers. In addition to the construction camp for temporary workers, some workers could be local and some may relocate permanently to the area."* Yancoal goes on to say in Section 16.7.2.2 of the *Environmental Impact Statement* that there will, *"be irreversible effects of the temporary workforce on community services and infrastructure",* and that, *"the Project is expected to result in a measureable effect on community services and infrastructure that could positively and negatively affect the sustainability of social and economic properties. Therefore, cumulative residual effects on community services and infrastructure are considered significant."*

We believe that Yancoal has underestimated the impacts that their development will cause to our existing community infrastructure, going so far to make the statement in the Factsheets provided in **Appendix 5-G** of the *Ministry of Environment Determination Notice* that *"For some municipalities there may be new demands on the local infrastructure which will be more than offset with increases in revenues from tax sharing and other direct investments by the project proponent."*

However, experience gathered from years of designing, financing, operating, and maintaining community infrastructure across Canada and the United States contradicts Yancoal's statement. As outlined in the attached study from the autumn 2008 edition of Plan Magazine, *"residential land uses, on average, do not pay for themselves"*. A copy of this study is provided in **Appendix H**.

Further to our guiding principles above, we request that Yancoal provide contributing funds to identify the impacts that their workforce and spinoff business employees will have on our existing community infrastructure. We also request funding from Yancoal so that our municipalities can develop realistic infrastructure upgrades and maintenance plans to mitigate the impacts of the increased population in our region.

STATEMENT 10

We have many substantial concerns about the assumptions Yancoal has made about transportation and traffic in the traffic impact assessment (TIA) that they have provided in their EIS submission, which are noted below.

General Comments

Foundational Comments:

a) The proposed distribution assumptions from Stantec's TIA (2015), displayed below in **Figure 2**, lay the groundwork for anticipated traffic patterns resulting from construction and operations at the site. The TIA assumes 85% of trips will be distributed to the south to Regina on Highway 6. This assumption is highly questionable given that Regina is over 85 km away from the core facilities of the mine site. As displayed in **Figure 3**, Google Traffic estimates one way travel time to Regina from the mine site at just over an hour in agreeable weather conditions. In short, the TIA assumes that 425 to 850 construction workers, and later 255 operations employees will spend two hours each day driving over 170 km to and from the mine site. This assumption strikes the review team as highly unrealistic. For reference, the 2011 National Household Survey identifies a median commuting distance of 15.4 km for Regina.

Figure 2: Yancoal – Southey Mine TIA Trip Distribution (Stantec, 2015)

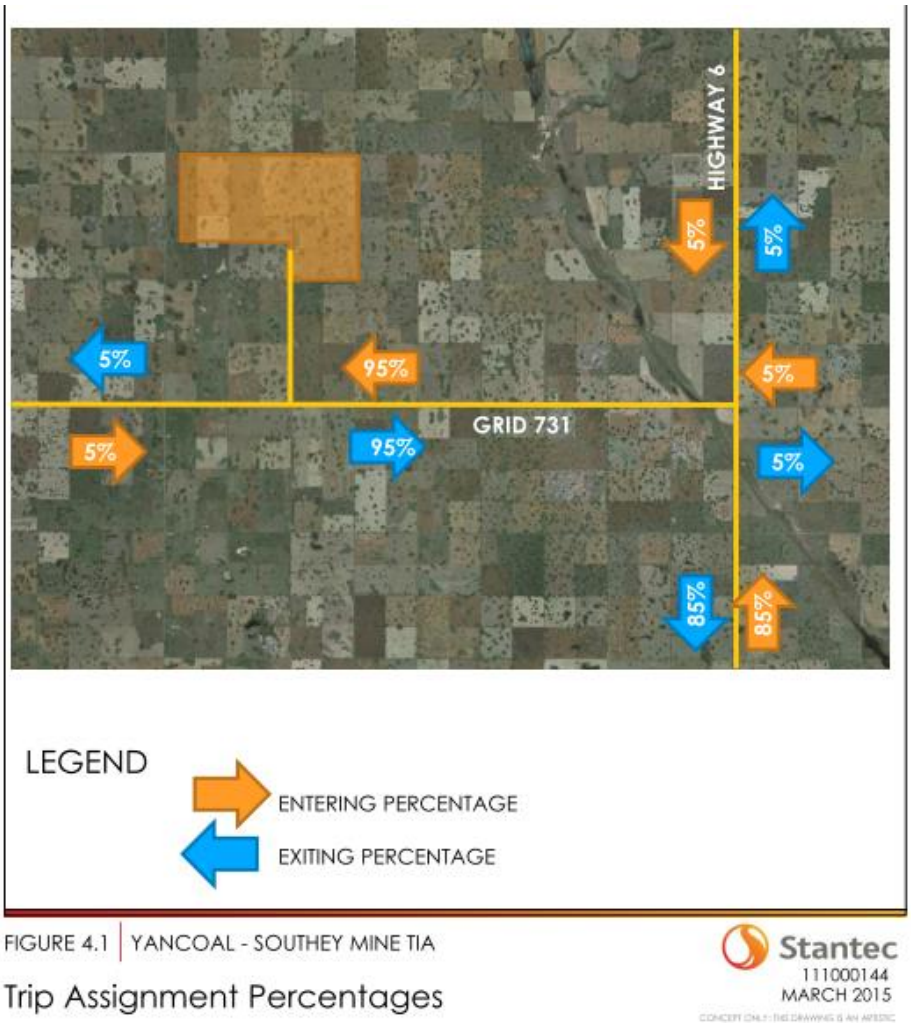
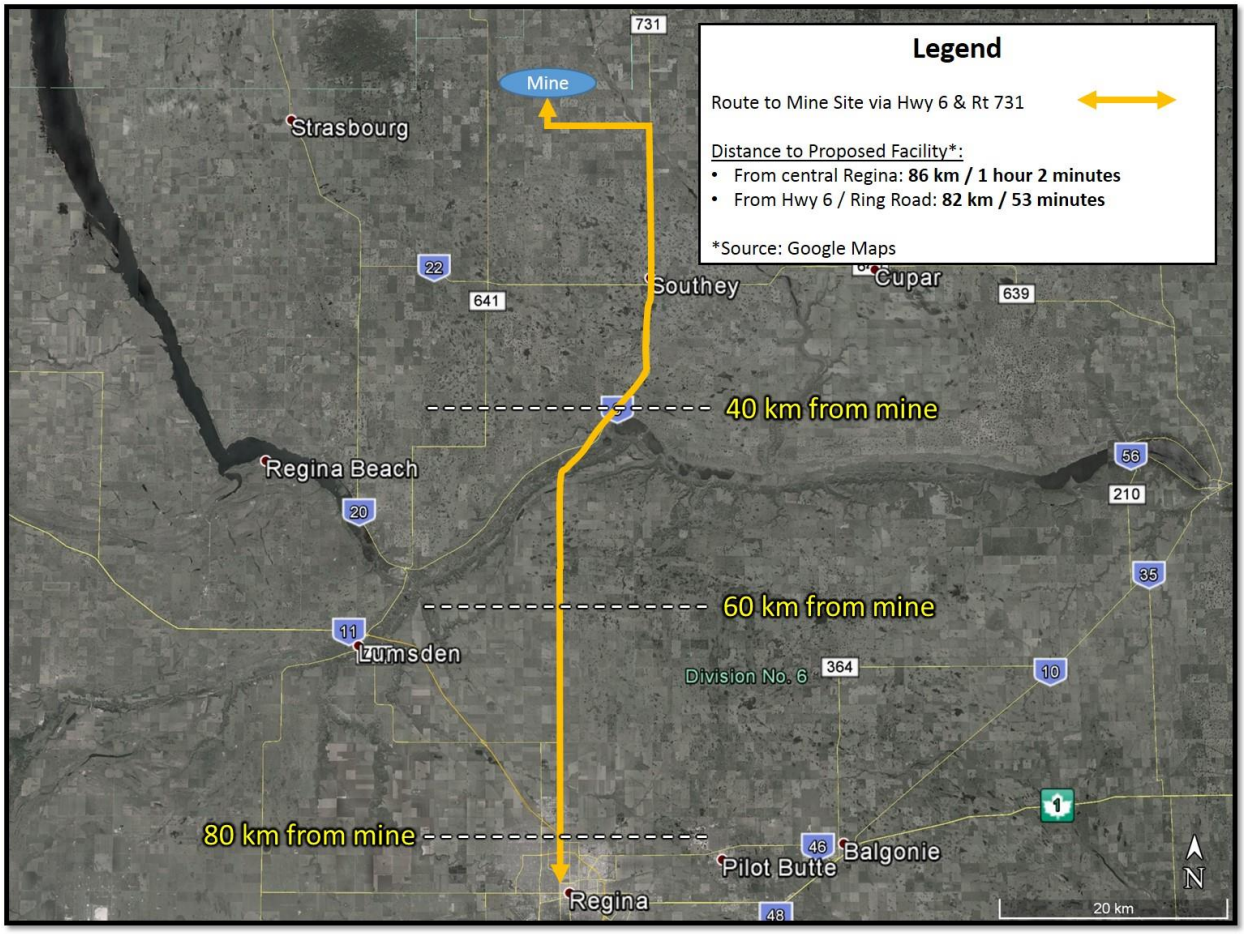


Figure 3: Distance and Travel Time to Proposed Mine Site



b) If the 85% trip distribution assumption to Regina is maintained, a review of environmental and greenhouse gas considerations of employees driving 170 km each day is recommended. Please note Yancoal's environmental mitigation strategies, detailing what programs and services the company will offer to encourage carpooling and shuttle buses from Regina and whether parking management strategies are being considered. Noting that the company's work shifts will likely exceed eight hours and that a one hour return drive after work may result in driver fatigue and an increased chance of road accidents, what strategies are being advanced to combat the real danger of driver fatigue post-work shift?

c) Additionally, if the 85% trip distribution to Regina is maintained, an additional 200-400 vehicles are anticipated to travel along Highway 6 in the peak hour to/from Regina. This represents a significant increase in traffic volumes along the Highway and may result in downstream intersection improvements along Highway 6. Of particular concern to the local area is the functionality of the Highway 6 / Highway 22 intersection in Southey. Additional traffic analysis is recommended at a number of downstream intersections including the following:

- Highway 6 / Highway 22 (Southey)
- Highway 6 / Highway 99
- Highway 6 / Industrial Drive (Regina)
- Highway 6 / Armour Rd (Regina)

d) As noted, the 85% trip distribution to Regina assumes an additional 200-400 vehicles in the peak direction along Highway 6. Given that agriculture is at the core of the area's identity and economy, there is concern about the impact of slow moving farm vehicles on roadway traffic on Highway 6, particularly during seeding and harvest seasons. How will traffic be affected when many large, slow moving farm vehicles are travelling along the road network? Additional analysis is required to determine whether Highway 6 can effectively handle an additional 200-400 vehicles in the peak period or whether twinning or passing lanes need to be investigated as part of the submission.

e) It is the communities' strong sense that the 85% trip distribution to Regina is farfetched, for reasons described above. Rather, it is anticipated that a significant number of employees will choose to make the surrounding communities home. This distribution will likely be higher for long-term operations employees than shorter-term construction workers. Assuming family relocation, one mining job will not solely equate to a return driving trip to and from the mine each day. With relocation comes new ancillary jobs for the communities and their associated trips, school related trips for children, and additional leisure trips. It is incumbent on Yancoal to estimate the traffic impacts of these new trips on the surrounding communities so that the communities can gain a more comprehensive sense of what to expect. Yancoal will need to consult with the communities to ascertain likely locations for new residences and proceed accordingly. Should distribution assumptions be changed, as the communities believe they should be, additional traffic counts and analysis would be required to account for the impact of site traffic on other intersections beyond the Highway 6 corridor.

f) Shift work results in unique traffic patterns that, in our opinion, are not adequately accounted for in the method employed in the Stantec TIA. Unlike a typical TIA, where the peak hours of operations are examined, operations at the Yancoal mine will result in strong traffic pulses immediately before and after work shifts. As such, distributing the mine's traffic evenly over the peak hour significantly downplays its impact; rather a peak 15 minutes should be selected for analysis to ensure traffic can effectively discharge from the site access, at Highway 6/Rt 731 and at downstream intersections. The ability to turn left or cross Highway 6 through Southey and other communities downstream of the mine should also be investigated for the peak 15 minute period, as improvements may be required to ensure community mobility and safety.

g) The TIA notes that up to 1,500 construction workers will be housed in a work camp whose exact location is still to be determined. Regardless of its location, the impact of an additional 500 to 1,500 vehicles on the communities' roads will have significant impacts on local traffic and property access and may require improvements to existing road geometry. While it is understood that the specific location of the site cannot be identified at this time, it is incumbent on Yancoal to adequately address the impact of this additional traffic on the network at this time. Without prejudicing the negotiation process, we recommend that Yancoal perform four parallel analyses for the work camp which would document the traffic impacts of the work camp should it locate northwest, northeast, southwest or southeast of proposed site. The communities are additionally interested in knowing what strict policies will be developed to shuttle services from the work camp to the mine and whether any programs are being considered to driving.

h) Although the TIA assesses the Highway 6/Rt 731 intersection, it does not analyze the Rt 731/site access and Rt 641/Rt 731 intersections. While the TIA notes that the work camp will be near enough to the site to not impact operations at the Highway 6/Rt 731 intersection, traffic from the work camp will undoubtedly affect the Rt 731/Site Access intersection and may impact operations at Rt 641/Rt 731. We strongly recommend that analysis be expanded to the two aforementioned intersections (including work-camp related trips, if applicable) and that, if warranted, Yancoal commit to additional geometric improvements on the secondary roadway network, pursuant to analysis.

i) The EIS notes potential impacts of subsidence affecting Grid Road 731 and Highway 6 as shown in **Figure 4** below taken from the Main Document (Page 349). The EIS notes, *"Subsidence is predicted to exceed 6 m in some sections of West Loon Creek channel near the grid road 731 crossing."* Also, subsidence along Highways 6 and grid road 731 was estimated at a maximum of 5 m /km (i.e. 1/200 metres per metre). This exceeds the maximum allowable settlement for paved roads… which is *"1/250 m/m"* (Page 782). While the potential for subsidence has been identified, the report lacks *mitigation* measures and indeed notes significant subsidence impacts near highways. The EIS should speak to what Yancoal could do to offset or reduce the impacts of subsidence or ensure all impacts are paid for by the mine.

Figure 4: Subsidence Impacts along West Loon Creek

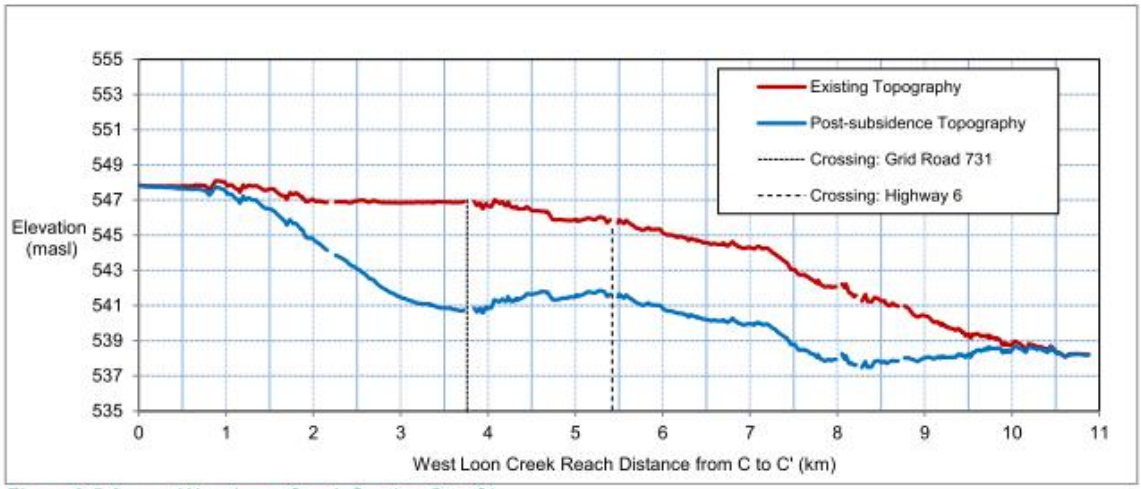


Figure 9.5-2: West Loon Creek Section C to C'

j) Annex V *Table 4.4-22* notes Average Annual Daily Traffic Volumes in the Local Study Area, 2003 to 2012 (displayed below as **Figure 5**). Highway 6 north of Southey was reported to grow by 65.6% during this period (or by about 7% per year). Stantec's TIA, by comparison, uses a much lower rate of 2% uncompounded to grow base traffic. A 7% annual rate may result in a very different set of improvements along the roadway, particularly over the longer term. Unless there is very good reason to proceed otherwise, the observed historic rate is recommended to grow background traffic along Highway 6 north of Southey.

Figure 5: Average Annual Daily Traffic Volumes in the Local Study Area, 2003 to 2012

Table 4.4-22: Average Annual Daily Traffic Volumes in the Local Study Area, 2003 to 2012

Highway	Approximate Location	Average Annual Daily Traffic Volume										% Change 2003-2012	% Change 2011-2012
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
No. 6	North of Regina	3,600	3,520	3,500	3,760	3,600	3,600	3,600	4,660	4,660	4,240	17.8	-9.0
	South of Southey	2,300	2,220	2,200	2,200	2,200	2,200	2,450	2,910	2,910	2,910	26.5	0.0
	North of Southey	1,280	1,260	1,240	1,250	1,290	1,640	1,640	1,680	2,270	2,120	65.6	-6.6
	South of Raymore	1,310[(a)]	1,300[(a)]	1,275[(a)]	1,285[(a)]	1,355	1,350[(a)]	1,410[(a)]	1,415[(a)]	1,500	1,470[(a)]	12.2	-2.0
	North of Raymore	1,090	1,190	1,160	1,170	1,280	1,280	1,160	1,270	1,270	1,190	9.2	-6.3
No. 20	North of Lumsden	2,510	2,440	2,790	2,760	2,610	2,610	2,860	3,040	3,020	3,160	25.9	4.6
	Between Highways No. 99 and No. 322	1,660[(a)]	1,625 (75)[(b)]	1,695 (85)[(b)]	1,660	1,755 (105)[(b)]	1,765 (115)[(b)]	1,930 (120)[(b)]	2,120 (130)[(b)]	2,105 (125)[(b)]	2,205 (130)[(b)]	32.8	4.8
	South of Highway No. 22 Junction	710	690	660	650	780	780	890	970	1,030	1,080	52.1	4.9
	Between Strasbourg and Govan	750	680	720	610	610	610	610	660	760	790	5.3	3.9
	North of Govan	410	320	290	300	300	300	300	510	510	530	29.3	3.9
No. 15	East of Highway No. 20 Junction	190	130	120	130	130	130	130	140	140	240	26.3	71.4
	West of Raymore	490	560	550	590	590	570	530	570	570	600	22.4	5.3
	East of Raymore	580	570	570	600	740	740	740	710	810	730	25.9	-9.9
No. 22	East of Highway No. 20 Junction	200	240	210	210	210	210	210	210	230	230	15.0	0.0
	East of Southey	690	690	720	720	790	770	770	800	940	750	8.7	-20.2
	West of Highway No. 35 Junction	410	410	390	400	400	400	410	410	620	620	51.2	0.0
No. 99	East of Highway No. 20 Junction	110	150	150	150	150	150	170	170	180	180	63.6	0.0
No. 322	Northwest of Highway No. 20 Junction	515[(a)]	505[(a)]	520[(a)]	530[(a)]	560[(a)]	590[(a)]	645[(a)]	665[(a)]	675[(a)]	725[(a)]	40.8	7.4
No. 220	West of Highway No.20 Junction	140	210	170	170	170	180	210	190	190	190	35.7	0.0

Sources: Saskatchewan Highways and Transportation 2005, 2007, 2009, 2011, 2013.

Note: the Average Annual Daily Traffic numbers come from an estimated annual total of traffic on a highway, with vehicles counted in both directions, divided by 365.

(a) These numbers are calculated from a continuous count, where a permanent sensor is used to collect daily data.

(b) These numbers are from a continuous classification count – numbers in brackets are the AADT of trucks.

No. = number; % = percent

k) The Main Document (Page 132) notes 15 large truck deliveries per week and 14 over-dimension trucks per month though it is unclear whether the Highway 6/Rt 731 and Rt 731/site access

intersections are capable of accommodating the turning radii of large and oversized trucks. Please specify truck dimensions and provide the results of a geometric analysis at both aforementioned intersections to ensure safe turning can occur.

l) Regarding oversized trucks, what is the general planned routing of these vehicles? Has the community or Ministry of Highways been consulted regarding when oversized trucks can operate on the highway and whether there are any obstructions to oversized trucks that may require improvements further downstream?

m) Through discussions with the community, it was revealed that a number of people choose Highway 20 instead of Highway 6 to travel to Regina to avoid heavier traffic on Highway 6. With 200-400 additional vehicles travelling to/from Regina during the peak, how is travel along alternate routes to Regina (such as Highway 20) anticipated to be impacted by the mine during both construction and operations phases?

n) The community has expressed concern over the impact of additional mine-related traffic on school bus access and pick-up. Please comment on whether school bus routes overlap the mine's primary commuting corridors and note whether additional traffic will impact school routes.

o) The Main Document (Page 343) notes plans to upgrade Grid Road 731 and the north-south site access to Ministry of Highways paved roadway standards. It is likely, however, that a significant amount of site traffic will travel to the core facilities area from the surrounding communities or further afield via Route 641. To ensure safe and efficient access to the site from the west, it is recommended that Yancoal investigate whether paving is required along Grid Road 731 between the site access and Grid Road 641 and along Grid Road 641 from Grid Road 731 to 5 km north of Earl Grey (where paving along Grid Road 641 currently begins).

p) Additional traffic on municipal roads will result in increased maintenance costs. Please detail how the mining operation plans to monitor increases in traffic volume and recompense the local municipalities for incremental maintenance costs associated with mine-related traffic.

q) The communities are concerned about the interaction of slow moving farming vehicles, heavy mine-destined trucks, and heavier traffic volumes on local and regional highways. Please address the interplay of mine traffic and farm vehicles and whether any lighting, pullouts, or other safety measures are being considered.

r) The communities are concerned about the impact of road closures and seasonal restrictions on traffic flow in the region. Please address any alternate routes that traffic going to and from the mine may need to take during these times.

Specific Comments

Item	Document Name	Page Number	Statement of Concern
1	Traffic Impact Assessment	4.1	The Traffic Impact Assessment does not appear to assess peak construction conditions. While this is understandable, given that peak construction is only assumed to occur over a two month timeframe, it should be more clearly noted that worst case conditions are not being presented for review in the TIA.
2	Main Document	Table 5.4-22	The project requires the closing of two stretches of grid road. Please note which roads will be affected and show how affected properties will be provided access.
3	Main Document	132	Bus / parking lot system to/from *"nearby communities"* is mentioned. Please note where the parking lots for bus services will be.
4	Main Document	132	*"Yancoal will work with the local RM for road improvements and new access roads that may be required to access the site."* Are new accesses being considered at this time? Where would additional accesses be located?
5	Main Document	729	Please clarify the statement: *"Communities in the socio-economic LSA are expected to experience the most noticeable increase in population, which will result in increased pressure on community services and infrastructure."* The LSA is defined in the document as the area within a 50 km radius of the site, which clearly excludes Regina and Fort Qu'Appelle. While the communities do not disagree with the statement, it is unclear why 85% of the traffic has been distributed to Regina and not to the LSA which would be more in line with the comment.
6	Main Document	809	*"Changes to the size of the workforce, which have already occurred, and changes to transportation arrangements, would affect the results of the TIA. If the number of vehicles increased, more intersection improvements could be required."* A sensitivity analysis should be undertaken to understand what *else* may be required should traffic volumes be greater than anticipated.
7	Main Document	821	*"Most traffic effects will be in the immediate vicinity of the Project, as workers carpool from the construction camp and travel in from Regina."* No analysis of workers 'carpooling' or otherwise travelling in from work camps have been presented. Please be sure to provide this essential analysis.

STATEMENT 11

Our municipalities are concerned that the location of the camp has not been identified in Yancoal's EIS. As stated in Section 3.8 of the *Environmental Impact Statement*, *"A temporary construction camp will be located as near to the construction site as practical to house up to 1,500 workers."* The camp will have a significant impact on our region, as the population that resides there will dwarf the size of any of our existing communities, which are identified in Table 16.3-2 of the *Environmental Impact Statement*. We request that Yancoal address the following items before being issued a permit for the project:

- What potential camp locations are being considered?
- Where will the solid waste and recyclables generated at the camp be stored, transported to, and ultimately disposed of?

- Who will be responsible for cleaning up camp related debris and litter from adjacent crop land so that seeding, production, and harvesting activities will not be impacted?
- Where will the raw water for the camp site be sourced from? Is there sufficient aquifer capacity to support the camp without affecting the availability of water for existing users in the region?
- Section 3.8 of the *Environmental Impact Statement* says that the camp will have an on-site water treatment plant. Where will the residuals from the water treatment plant be disposed of? How will the residuals discharge affect the existing environmental conditions?
- Section 3.8 of the *Environmental Impact Statement* says that the camp will have an on-site sewage treatment plant. Where will the effluent from this facility be disposed of? How will the effluent release affect the existing environmental conditions?
- What alignments will the electrical, gas, and telecommunications services take? How will the installation of these services affect existing land uses in our region?

We feel that Yancoal has been disingenuous in their discussion of the prospective camp locations in the EIS. Section 3.8 of the *Environmental Impact Statement* says that, *"It is anticipated that the camp will be located as close to the core facilities area as possible to reduce the amount of traffic on the roads. However, efforts will be made to locate the camp away from existing natural drainages, areas of native grassland, or other environmentally sensitive locations."* Yancoal advised our group at the IMAC meeting on March 30, 2016 that interested municipalities should submit business plans and tenders for the privilege of having the camp constructed adjacent to their communities. Yancoal implied that they would like to make use of existing community services and infrastructure where possible to minimize their camp construction costs. Yancoal's message to the group that day was that the camp would be a benefit to the region in the form of additional business from the temporary workers that would be living there and that the communities in our region should be competing with each other for the opportunity to have the camp be built adjacent to their municipal boundary. Minutes of the meeting taken by the RM of McKillop are attached in **Appendix I**.

Based on conflicting messages Yancoal has provided we request that Yancoal identify the location of the camp and fully assess the impacts it will have on existing conditions in the nearby communities and region as a whole prior to proceeding with the project.

STATEMENT 12

Our residents are concerned about how their personal safety and property protection will be affected once the workers have moved to the camp site. Many people have told us that they will invest in additional home security systems such as fencing, gates, cameras, alarms, and yard lights to protect themselves and their families from the possibility of increased crime in the region as a result of the transient workforce that will be present in the area. We therefore request that these residents be provided with reimbursement from Yancoal for these additional protective costs.

STATEMENT 13

Yancoal states in Section 8.4.2.2 in the *Environmental Impact Statement* that, *"Predicted subsidence values range up to approximately 6.7 m."* This is a considerable departure from existing conditions in our municipalities. We are extremely concerned about the impacts that subsidence will have on our existing community infrastructure, including regional roads, community roads, water supply wells, water pipes and appurtenances, sewer lines, manholes, electrical lines, telecommunications, and gas lines. Are also concerned about the effect that subsidence will have on stormwater drainage patterns in our communities and in our rural areas. In addition, we also have concerns with the impact that subsidence will have on landfill leachate transmission patterns. We request that Yancoal address each of these issues prior to the project proceeding, and that each well used for potable water in our region identified in the provincial well database (https://gis.wsask.ca/) be investigated and reported on with respect to subsidence.

STATEMENT 14

Yancoal has identified locations of existing health care facilities and schools in our region in Sections 16.3.2.5.1 and 16.3.2.5.3 of the *Environmental Impact Statement*. However, they have not identified their capacity of these facilities nor their ability to accommodate the expected increase in population that we have identified above. Yancoal concedes in Section 16.9 of the *Environmental Impact Statement* that, *"Some services, such as schools and health care are operating near or at capacity."* Given that our population is expected to grow as a result of Yancoal's proposed project what facility renovations, building expansions, equipment investments, and additional staff might be required at our existing schools and health care facilities? We request that Yancoal further study this issue prior to the project proceeding and provide funding for any improvements that may be required.

STATEMENT 15

We are concerned that Yancoal has not sufficiently addressed the impact that the population we expect to see permanently relocate to our area as described above will have on our need for emergency protective services including, police, ambulance, and fire. We request that Yancoal provide a plan for how our existing emergency services will be maintained and/or enhanced as a result of a portion of their workforce permanently relocating into our region. We also request that Yancoal fully cover the cost of any of the additional services required.

In addition, Section 16.3.2.5.2 of the *Environmental Impact Statement* says that, *"The three main emergency and protective services are ambulance and EMS response, fire services, and police services. Because the socio-economic LSA is a relatively rural area with a low population, many of the communities have mutual aid agreements for shared services."* We therefore request that Yancoal negotiate a mutual aid agreement with emergency service providers in our municipalities as a condition of receiving approval for the project.

STATEMENT 16

Our municipalities understand that the routing options for the proposed rail line that will be needed to service the mine site are still under evaluation. Section 4.8.7 of the *Environmental Impact Statement* says that, *"The rail company that is selected will be responsible for the selection of the route for the rail line, completing the required environmental assessment, and obtaining the necessary easements and permits to construct. The rail company will be the proponent responsible for all regulatory approvals required for construction of the new rail line to the Project."*

Yancoal stated in their presentation to the RM of McKillop on January 26, 2016 that rail service will be provided by either Canadian National or Canadian Pacific and that it will generally be routed to the north or to the west through the Rural Municipality of McKillop. The alignment could negatively impact a number of our residents and rate payers. Given the potential impact that rail upgrades or extensions could have on our residents and ratepayers we request that any concerns we have with respect to impacts of rail line routing be addressed by both Canadian National and Canadian Pacific in advance of Yancoal selecting a service provider as a condition of approval.

STATEMENT 17

We are deeply concerned about the administrative costs that our municipality has borne and will continue to bear as a result of the proposed Yancoal project. In response to these concerns Yancoal consistently touts the royalties and taxes that our municipalities will be entitled to. They state in Section 16.2.2.2 of the *Environmental Impact Statement* that, *"Project operations will generate additional revenue in the form of taxes and Royalties."* However, our municipalities are already bearing significant additional costs that are associated with this project, including reviewing the EIS, and will continue to do so at an increasing rate as the project moves into construction and pre-production activities. Our municipalities cannot afford to incur these current and ongoing costs.

According to Table 1.4-1 in the *Environmental Impact Statement* the first full year of operation is expected to occur in 2020. Given that there is a lag of several years between incurring costs associated with this project to the time that royalties and taxes will be paid to our municipalities, we request that Yancoal provide contributing funds immediately to cover the entire cost of the following initiatives related to their development:

- Additional planning and engineering studies to the impact of the temporary, permanent, and spinoff business employees to existing infrastructure and community services in our municipalities;
- Additional staff and/or office equipment (i.e. phones, computers, work spaces, etc.) to address mining related issues in our municipalities; and
- Funding for regional collaboration studies, including Official Community Plans, Zoning Bylaws, Asset Management Plans, Development Levies, Servicing Agreements, Development Permits, and Road Access Agreements.

Yancoal states in their letter to the RM of McKillop, which is provided in **Appendix A**, that, *"Yancoal has been advised not be seen as influencing the environmental review process by providing financial assistance to third parties. Therefore, ultimately we have to decline your request for financial support at this time."* However, Yancoal would not tell us who advised them not to help our municipalities bear the cost of reviewing the impact that their development will have in our communities. Our representatives contacted senior officials with the Ministry of Government Relations, the Ministry of Environment, and Highways and Infrastructure but were not able to identify the source of this advice.

Yancoal's stated position appears to contradict their assertion in **Appendix 5-G** of the *Ministry of Environment Determination Notice* that, *"mutual benefit agreements could be established."* Their refusal to provide contributing funds also contradicts past Ministerial EIS decisions for potash mines. The Vale Potash Project approval included a condition stating that, *"The Proponent shall provide a signed "Development Plan Agreement" with the Rural Municipality of Edenwold No. 158 to the Environmental Assessment Branch prior to onset of construction activities at the Development site."* A similar condition for the Western Potash Corporation states that, *"The Proponent shall provide a signed Development Plan Agreement with the Rural Municipality of Lajord No. 128 to the Environmental Assessment Branch (EAB) prior to onset of construction activities at the Milestone site."* Copies of both Ministerial decisions are provided in **Appendix J**.

Furthermore, based on our discussions with the RM of Prairie Rose we understand that the potash developer in their region provided contributing funds to the municipality prior to the EIS being approved. We therefore request reimbursement from Yancoal for all costs incurred to date as a result of this project and all contributing funds to fully fund the costs of all future work we will need to undertake as a result of their proposed development going forward.

STATEMENT 18

The municipalities in our region are concerned about the effect that the proposed Yancoal project will have on local aggregate supplies. This is a precious local resource and we feel that the decreased availability and corresponding price increase will be extremely problematic for residents and municipalities in our region. The *Aggregate Sourcing Study – Phase 1* that was provided to the RM of McKillop by Yancoal and attached in **Appendix K** states that the approximately 500,000 m^3 of aggregate will be needed to develop and construct the proposed project. The report further states that there is currently approximately 6,200,000 m^3 of aggregate available for coarse granular base materials, fine and coarse well-graded gravels, and traffic gravel. The estimated 500,000 m^3 of aggregate that Yancoal requires represents approximately 8% of local supplies. We feel that it is therefore reasonable to expect that aggregate prices will increase by at least 8% as a result of this project.

We are concerned that Yancoal has not considered the impact that the major projects in the local study area that are listed in Section 4.4.2 of the *Annex V Cultural Environment Baseline Report* will have on local aggregate supplies. Other projects in the local study area that have a value of less than $50 million have also not been considered, which includes several significant infrastructure projects that are listed in

Regina's capital projects plans in **Appendix L**. We are also concerned about the extra gravel that will be needed to maintain our regional grid road network as a result of the increased traffic activity that is expected once the mine is being developed and becomes operational. Where will this gravel come from? How much extra will it cost and how will our municipalities be protected from bearing the brunt of the expected cost increases? Who will develop additional aggregate sources if needed? These are questions that we request Yancoal address before a permit is issued.

STATEMENT 19

We are deeply concerned about the impact that the additional population we expect to see in our region will have on housing. Yancoal seems dismissive of these concerns, stating in Section 16.5.2.2 of the *Environmental Impact Statement*, *"Due to the small population and limited infrastructure and services in the immediate vicinity of the Project, most of the in-migrating population is expected to relocate to Regina. A small number of workers may relocate to communities or acreages north of Regina and closer to the Project. This assessment will focus on the effects on Regina, based on the expectation that most of the population increase will be experienced there. Other communities may still experience minor changes to real estate and housing, and other services and infrastructure, because of small increases in population."* Given our above noted rationale for expecting greater than 15% of Yancoal's permanent workforce and spinoff business employees to reside outside of Regina, we request that the following issues be addressed to our mutual satisfaction prior to Yancoal proceeding with development of their proposed project:

- What impact will the increased population have on the availability of existing housing stock (acreages and municipalities)?
- What percentage of current crop land that is in production (or could potentially be in production) be re-zoned to accommodate the population increases that we expect to see in our region?
- How will the expected increase in population affect the cost of living in our communities?
- How will the increased population in our municipalities impact the availability of affordable housing for our most vulnerable and marginalized residents?

STATEMENT 20

Yancoal has identified impacts to quality of life in our region as a result of their proposed project in Section 16.5.4.1 of the *Environmental Impact Statement*. They state that, *"quality of life is defined by outer aspects of quality of life (e.g., livability of the environment), rather than inner aspects which are highly subjective (e.g., appreciation of life or perceived general health and wellbeing."* We feel that this is an incredibly dismissive claim that does little to speak to the impacts that a $3.66 billion project, as stated in Section 16.5.1.1 of the *Environmental Impact Statement*, will have to our quality of life.

We feel that the quality of life in our region is defined by much more than simply the air quality, water quality, visual aesthetics, and noise experienced by residents in our communities as described in the EIS. Our quality of life is a function of our health and well-being, our chosen small town and rural lifestyles, the culture we have created, the corresponding relationship that we have with the land, the closeness we share with our families and other members of our communities, and our access to recreation and leisure activities.

How will the Yancoal project ultimately impact our day-to day lives? How will the fabric of our communities change once development and operations activities are underway? How will our community culture change if a percentage of our residents chose to relocate out of our region away from the mine? How will the presence of Yancoal's temporary construction workforce, permanent employees, and spinoff business employees affect the existing look and feel of our communities? We request that Yancoal meaningfully consider and address these issues before the proposed project moves forward.

STATEMENT 21

We also define quality of life in our region by the access that we currently enjoy to our recreation facilities and amenities in the area. Yancoal identifies the more popular recreation destinations in our region in Section 16.3.2.5.6 of the *Environmental Impact Statement*. However, they do not identify how the increased population that we expect, as described above, will affect the current availability of parks, sports fields, arenas, playgrounds, boat launches, marinas, cabins and campgrounds that our residents enjoy. We request that Yancoal identify what additional investments will be needed to maintain our existing access to recreation and tourism facilities.

STATEMENT 22

We understand that Yancoal has entered into an asset purchase agreement with Gensource per the document provided in **Appendix M**. Our municipalities are concerned about Yancoal negotiating a similar sale of the mining rights in our region taking place in the future. As such, we request that any conditions of the permit that is ascribed by the Ministry of Environment be transferred to any prospective new permit holder and not remain with the original applicant.

3.0 FRAMEWORK FOR DEVELOPMENT PLAN AGREEMENT BETWEEN YANCOAL AND RURAL MUNICIPALITIES

INTRODUCTION

The Rural Municipalities (RMs) that will be impacted by the proposed Yancoal Southey project would like to underscore the need for formal, legally-binding bilateral agreements between each of the RMs and Yancoal Canada Resources Company Limited (Yancoal). These agreements are known by a variety of names in the Canadian context, including Community Benefit, Impact Benefit and Legacy Agreements. The RMs understand that the common reference used by the Province of Saskatchewan is Development Plan Agreement. Such Agreements are seen as a means for the potash developer (Yancoal in this instance) to earn social license to operate in the community, and for the community to ensure that impacts are addressed, benefits are received, and the community is left 'better off' should the project proceed.

The following sections of this Framework outline the components which the RMs envision as part of Development Plan Agreements with Yancoal.

DEEPEN THE UNDERSTANDING OF WORKFORCE RESIDENCY IMPACTS ON RURAL MUNICIPALITIES

With respect to Yancoal and its consulting team, the RMs are not satisfied with the contents of the *Environmental Impact Statement* (EIS) that relate to where construction and operations workforces will reside. The primary pathway identified in Section 16.4.2.3.2 of the EIS (p. 16-61) acknowledges that *'A non-resident Project workforce that relocates to the socio-economic LSA can place increased demand on housing, infrastructure and services.'* The RMs are located within the LSA (Local Study Area), and agree with this EIS statement. However, there are several aspects of the EIS which do not provide for a clear and accurate understanding of non-resident relocation, and therefore impacts on many of the services delivered by the RMS (including land for housing and associated infrastructure). These aspects are noted below.

- Construction camp – where will the 1,500 person construction camp be located, what services will it require from the RMs, what associated impacts may occur (i.e. crime), and what policies and other initiatives will Yancoal put in place to avoid negative impacts?

- Direct operation workforce residency – due to commuting distance and other factors, the RMs do not agree with the statement in Section 16.6.2 (p.16-86) that *'The portion of the workforce that may relocate to smaller communities near the Project is expected to be quite small',* and that the City of Regina is forecast to accommodate the vast majority of the direct operations workforce.

- Indirect and induced workforce residency during operation – similar to the statement with respect to the direct operations workforce, the RMs envision a higher proportion of this 'spin-off' indirect and induced workforce located closer to the proposed Project, and fewer in Regina.

As part of the Development Plan Agreement, the RMs are requesting that Yancoal collaborate with and provide support to the RMs to deepen the understanding of workforce residency during construction and operations. This is seen by the RMs as a fundamental requirement to anticipating, and therefore managing, effects on their communities.

MITIGATING AREAS OF CRITICAL IMPACT

There are a number of critical impact areas where the RMs have particularly acute interest in mitigation. This mitigation can take the form of, in sequence:

- Avoidance;
- Minimizing or limiting;
- Restoration;
- Compensation.

Critical municipal service impact areas include:

- Road network – traffic and road condition (including aggregate supply for road maintenance and upgrading);
- Solid waste and recycling;
- Wastewater collection, treatment, and disposal;
- Water supply;
- Water treatment;
- Protective and emergency services;
- Recreation.

The RMs would also like to ensure that services delivered by other agencies to community residents are maintained or enhanced. These include, for example education, health care and social services delivered by both government and non-government agencies.

As noted above in the discussion above regarding workforce residency, a fundamental requirement of understanding and mitigating many of these impacts is deeper and more accurate knowledge of where construction and operations workforces will reside. Once this is better understood, the RMs are requesting that Yancoal cooperate with and support the RMs in analyzing service delivery impacts.

In addition to municipal service delivery impacts, it is also important to acknowledge that there will be impacts not connected directly to the extent of workforce migration to the RMs. These include, for example, traffic and solid waste generated by construction activity at the potash mine site (and not associated with the construction camp per se). The RMs are also looking for cooperation and support from Yancoal in dealing with these impacts.

NO NET COSTS INCURRED BY RURAL MUNICIPALITIES

The RMs stand by the foundational belief that they should incur no net costs if the Yancoal project is approved through the EIS and subsequent licensing and permitting processes. The RMs also recognize the following:

- Costs will be incurred by RMs prior to any revenues being received through municipal property taxation, fees and charges, or other sources of revenue – examples of these costs include funds expended for review of the EIS and collaboration on a Development Plan Agreement, as well as delivery of services during the construction period prior to industrial assessment being established and property taxes levied;

- Residential development spawned by industrial workforce in-migration does not generally pay for itself (i.e. the costs of providing services to residences and their inhabitants is typically more than revenue received from residential property taxes and other fees / charges);

- There is a need for the RMs affected by the proposed Yancoal project to better understand the *Municipal Tax Sharing (Potash) Act* and the mechanics of its implementation to the proposed Southey project.

These fundamentals provide context for additional resources required by the RMs, with the support and collaboration of Yancoal, to quantify the following:

- Prior to Operations Phase of Proposed Yancoal Project:
  - Costs to RMs during EIS review, permitting, licensing and collaboration on Development Plan Agreement
  - Costs to RMs during construction for municipal services delivered, including roads and other infrastructure

- During Operations:
  - Expenditures by RM during operations
  - Revenues to RM during operations (property taxes, fees and charges, other revenue sources)
  - Net benefit (cost) during operations

The RMs also require the participation of Yancoal in establishing cost recovery mechanisms during the following periods:

- Prior to Operations – funding assistance to RMs for costs incurred prior to operations
- During Operations – addressing the net benefits (costs) realized by RMs

LEAVING THE RM'S BETTER OFF

The RMs are in full agreement with a principle articulated by the Mining Association of Canada who state in the 'Toward Sustainable Mining' document that mining operations should *'Provide lasting benefits to local communities through self-sustaining programs that enhance the economic, environmental, social, educational and health care standards they enjoy.'* The RMs also feel that mitigation of impacts (as noted above) are a basic requirement of potash resource development, and that benefits are to be considered over-and-above impact mitigation.

The RMs also recognize that there are potentially significant economic benefits resulting from potash development. These include:

- Job creation;
- Economic and business development opportunities;
- Skill development among individuals and businesses which can carry on as legacies beyond the life of the mine.

In order to optimize these economic benefits, the RMs propose that the following initiatives be included in the Development Plan Agreement to ensure that Yancoal and the RMs work together in advancing them:

- Local hiring policy;
- Local procurement policy;
- Workforce development strategy – initial training, apprenticeship, continuous learning.

The RMs also request that the Development Plan Agreement acknowledge other areas of potential community investment (such as recreation, culture, etc.), and set the stage for a process by which Yancoal and the RMs can identify and resource (funding, volunteerism, other) these investments.

MONITORING AND ADAPTIVE MANAGEMENT

The RMs agree with the direction contained in Section 17 of the EIS which notes the need for monitoring to assure compliance with conditions of project approval, test the accuracy of predictions, and identify unforeseen impacts and effects. In addition, the EIS notes that the results of monitoring may reveal the need for adaptive management measures (such as additional mitigation).

The RMs propose to include a number of dimensions of the monitoring and adaptive management in the Development Plan Agreement. These will include identification of:

- Monitoring programs for areas of critical concern to the RMs (such as traffic and road network impacts);
- Responsibilities for carrying out monitoring (by whom, funding);
- Verification of monitoring results;
- Sharing of monitoring results;
- Decision-making arrangements for responding to monitoring results, including need to deploy adaptive management measures;
- Funding of adaptive management measures;
- Relationship to other agencies with interests in monitoring and adaptive management (such as various Government of Saskatchewan Ministries).

As part of this exploration, the RMs suggest consideration of an Independent Environmental Monitor model which has been used in resource development projects in other Provincial jurisdictions.

COLLABORATION AND COMMUNICATION

The RMs believe that a collaborative approach founded on open, transparent, two-way communication is central to achieving the RMs objectives as well as those of Yancoal. The Development Plan Agreement should require that the parties (RMs and Yancoal) dedicate time and resources to establish a communications plan which achieves this end. The 'Community Relations Plan' envisioned by Yancoal in the EIS provides a potential launch point for this work.

4.0 SUMMARY OF DESIRED OUTCOMES

STATEMENTS OF CONCERN

Statement 1: We request that Yancoal become a full member of the Mining Association of Canada as a condition of being issued a permit to ensure a high level of corporate social responsibility and to be accountable to the Towards Sustainable Mining measures.

Statement 2: Per the FIPA agreement we request that Yancoal follow the best practices for community engagement, municipal consultation, impact identification, and development agreements that have been practiced by other potash mining companies in Saskatchewan.

Statement 3: We request that going forward Yancoal honour their stated commitment to partnering with our communities such that we are not required to provide comment on any project related items during seeding or harvesting.

Statement 4: We request explanation from the Ministry of Environment as to why our request to extend the review period to 60 days was denied. We also request that the release date of any future documents requiring public review do not overlap with seeding or harvesting activities.

Statement 5: We request that going forward Yancoal present their project related findings in a manner that allows it to be more accessible to the general public.

Statement 6: We request that prior to project moving forward that we be re-engaged by Yancoal so that an open and honest discussion about the potential benefits, impacts, and mitigative measures can be discussed and agreed to prior to any development occurring. We also request that any future IMAC meetings be led by the participating municipalities so that we can more effectively voice our concerns about the potential impacts of the project in our communities as development proceeds.

Statement 7: We request that prior to any permit being issued that Yancoal resubmit their EIS to the Ministry of Environment and analyze the impacts that their proposed project will have in our region based on the true distance of the core facilities from Regina.

Statement 8: We request that prior to any permit being issued that Yancoal resubmit their EIS to the Ministry of Environment and analyze the impacts that their proposed project will have in our region based on the likelihood that less than 85% of their permanent workforce will choose to reside in Regina.

Statement 9: We request that Yancoal provide contributing funds to identify the impacts that their workforce and spinoff business employees will have on our existing community infrastructure. We also request funding from Yancoal so that our municipalities can develop realistic infrastructure upgrades and maintenance plans to mitigate the impacts of the increased population in our region. We also request that Yancoal assess the impact that subsidence induced changes to stormwater management will have on our surface water pumping costs, particularly in consecutive wet years.

Statement 10: We request that Yancoal conduct a new traffic impact assessment that addresses the following areas of concern:

i. Location of temporary and permanent workforce throughout the region given the actual distance of the mine site from Regina.
ii. Details of Yancoal's proposed carpooling and shuttle bus programs, offsite parking management strategies, and driver fatigue management policies to discourage single passenger driving.
iii. Analysis of traffic conditions at downstream intersections along Highway 6.
iv. Analysis of the impact of large, slow moving agricultural vehicles in the study area.
v. Analysis of the impact of additional trips in the study area that will be taken by employees and their families.
vi. Re-analyze traffic patterns in study area to account for traffic pulses at shift changes.
vii. Conduct a sensitivity analysis for work camp locations northwest, northeast, southwest or southeast of the proposed mine site.
viii. Analyze geometric improvement requirements on the secondary road network.
ix. Identify mitigation strategies for addressing the effects of subsidence in the road network.
x. Re-analyze impacts to traffic in the study area using observed historic rate in Table 4.3-22 in Annex V.
xi. Specify delivery truck dimensions and geometric improvements that will be required to accommodate these vehicles.
xii. Identify the planned route of delivery vehicles and include the impact of these vehicles on the road network in the study area.
xiii. Identify how travel along Highway 20 will be affected given the local knowledge that a percentage of people will likely choose to access the site using this route.
xiv. Identify the impact of mine related traffic to existing school bus routes.
xv. Investigate whether paving is required along additional sections of Grid 731.
xvi. Detail the traffic monitoring program that will be put in place for the study area and how our municipalities will be compensated for increased road usage.
xvii. Assess what safety features will be needed to mitigate the interaction of large, slow moving farm machinery and large vehicles to support mine activities.
xviii. Identify any alternate routes that may be needed during seasonal road closures.

Statement 11: We request that Yancoal identify the location of the temporary work camp and fully assess the impacts it will have on existing conditions in the nearby communities and region as a whole prior to proceeding with the project.

Statement 12: We request that our residents be provided with reimbursement from Yancoal for home and yard security costs associated with increased activity in the area.

Statement 13: We request that Yancoal address how subsidence will affect our existing community infrastructure prior to the project proceeding, and that each well used for potable water in our region identified in the provincial well database (https://gis.wsask.ca/) be investigated and reported on with respect to subsidence.

Statement 14: We request that Yancoal investigate the impact that the increased population in our regional will have on our existing schools and health care facilities.

Statement 15: We request that Yancoal provide a plan for how our existing emergency services will be maintained and/or enhanced as a result of a portion of their workforce permanently relocating into our region. We also request that Yancoal negotiate a mutual aid agreement with emergency service providers in our municipalities as a condition of receiving approval for this stage of the project.

Statement 16: We request that any concerns we have with respect to impacts of rail line routing be addressed by both Canadian National and Canadian Pacific in advance of Yancoal selecting a service provider as a condition of approval

Statement 17: We request that Yancoal provide contributing funds immediately to cover the entire cost of administrative costs that we have incurred to date as a result of their proposed development. We also request that they provide funding for any similar additional costs that we incur in the future.

Statement 18: We request that Yancoal address our aggregate availability and pricing concerns prior to moving forward with the project.

Statement 19: We request that Yancoal complete an analysis of housing will be affected in our communities prior to proceeding with the project.

Statement 20: We request that Yancoal quantify the impacts that their proposed project will have to the quality of life that our residents currently enjoy.

Statement 21: We request that Yancoal identify what additional investments will be needed to maintain our existing access to recreation and tourism facilities.

Statement 22: We request that any conditions of the permit ascribed by the Ministry of Environment be transferred to any prospective new permit holder and not remain with the original applicant.

DEVELOPMENT AGREEMENT

We request that Yancoal enter into a development agreement with our municipalities that addresses the following key concerns that residents in our community have with respect to the proposed potash project:

- Deepening the understanding of Yancoal's workforce residency and the corresponding impacts on our rural municipalities;
- Mitigating areas of critical impact of the proposed project;
- Ensuring that no net costs are incurred by our municipalities as a result of the proposed project;
- Ensuring that our municipalities are left better off by the proposed potash development;
- Developing meaningful monitoring and adaptive management protocols; and
- Committing to meaningful communication and collaboration with our municipalities.

APPENDIX A

YANCOAL REQUEST & RESPONSE LETTER

Rural Municipality of McKillop No. 220

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BULYEA, SASKATCHEWAN

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FAX: 306-725-3206
E-MAIL: rm220@sasktel.net

Mailing Address:
P. O. BOX 40
STRASBOURG, SASKATCHEWAN

April 21, 2016

Yancoal Canada Resources Co. Ltd.
300 – 211 - 4th Avenue.South
Saskatoon, Saskatchewan
S7K 1N1

Thank you for taking the time to meet with our councilors at the Rural Municipality of McKillop No. 220 office on January 26, 2016. Although our time together was brief we appreciated the opportunity to learn more about the proposed YanCoal potash development project from you. Based on the information your company provided that day and the additional public engagement sessions that you have held we understand that that the Southey Project will be located approximately 60 km north of Regina, adjacent to our municipal boundary within the Rural Municipalities of Longlaketon and Cupar.

We have reviewed your February 2015 Technical Proposal and understand that your Environmental Impact Statement (EIS) was submitted to the Saskatchewan Ministry of Environment in July 2015. We also understand that although the environmental assessment review process does not have a prescribed timeline, YanCoal anticipates that ministerial approval is likely to be received during the second quarter of 2016. We understand that the EIS will be made available for public review once the Ministry of Environment have completed their technical review. The public review period will be open for 30 days, and although it may be extended by an additional 30 days at the discretion of the Ministry of Environment, we feel that even with an extension our residents, staff, and elected officials will not have sufficient time to complete a detailed review the document.

We understand that the anticipated lifespan of the Southey mining project is 65 to 100 years. As such, a meaningful, collaborative partnership between the mine and regional local governments is critical to the initial and ongoing success of the project. As was communicated in our meeting, YanCoal believes that engagement and community involvement is integral to the project advancement process and has committed to maintaining regular, meaningful communication with the public, which expressly includes rural municipalities such as ourselves. The stated purpose of these communications is to provide information on the project to potentially affected parties and other interested members of the public.

It is in this spirit of partnership that we reach out to you and request the additional information that we feel will be beneficial to our understanding and independent assessment of the potential impacts that the project will have on the people and infrastructure in our municipality. Our preference would be to review the complete EIS document that was submitted to the Ministry of Environment. However, we understand that there may be some proprietary or otherwise confidential information contained in the document with respect to technologies or processes associated with the proposed mining operations. As such, we request at minimum copies of the technical sections of the EIS including:

- Aggregate usage and availability;
- Supporting infrastructure (water supply, wastewater treatment and disposal, electrical power, natural gas, telecommunications, roads, and rail);
- Domestic and industrial waste management;
- Health, safety, security, and environmental management system;
- Human resources; and
- Socio-economic effects (workforce in-migration, population effects, worker residency, employment and income generation, municipal government financial impacts).

Through our review of the Technical Proposal we understand that YanCoal has committed to paying for upgrading the primary access road to the core mine facilities area, which includes a section of grid road 731 from Highway 6, located within the Rural Municipality of McKillop. As stated in our meeting any additional road alterations or upgrades resulting from the project will also be funded by YanCoal. We also understand that traffic studies have been carried out to determine if the anticipated increase in traffic can be managed safely such that it will not have a detrimental impact on the existing road infrastructure, and that the results of these studies can be found in the EIS. However, we are concerned that we were not provided with an opportunity to contribute to or review the road upgrades that you have proposed within our municipal boundaries. Given the impact that any road upgrades or road closures could have on our residents and ratepayers we request a copy of the relevant sections of the EIS that relate to the transportation system studies that were undertaken.

We also understand that the routing options for the proposed rail line that will be needed to service the mine site are still under evaluation. Your presentation stated that rail service will be provided by either Canadian National or Canadian Pacific and that it will generally be routed to the north or to the west through the Rural Municipality of McKillop. The rail line provider will be responsible for route selection, environmental assessment, land acquisition, engineering, construction, and operation of their infrastructure. Again, given the potential impact that rail upgrades or extensions could have on our residents and ratepayers we request a copy of the relevant sections of the EIS that relate to the analysis of rail line routing options. We also request that any concerns we have with respect to impacts of rail line routing be addressed by both Canadian National and Canadian Pacific in advance of YanCoal selecting a service provider.

Our residents are also concerned about the potential impact that mining site development and operation will have on the availability and cost of local aggregate supplies. YanCoal has stated that options for sourcing the aggregate required for the project are currently being assessed, and that the preference will be to source as much aggregate as possible from local sources without adversely affecting existing users in the region. As such, we request a copy of any aggregate studies that have been done in the region to confirm the locations of the proposed aggregate extraction areas and the rationale for the stated minimal cost and availability impacts to this precious local resource in both the short term and the long term.

Finally, we understand that approximately 2,200 workers will be required at the peak of construction for the project. It is also expected that there will be between 300 and 350 full time, permanent positions available during operations. The project will also provide many job opportunities to local people during the construction phase and during operations. Although site specific health and safety plans will be developed, we are concerned by the impacts that mine development and operations will have within the Rural Municipality of McKillop. Many of these workers are likely to reside within our municipal boundaries. As such, we would like to review any studies YanCoal has undertaken regarding the need for additional housing, utilities, education, recreation, police, and emergency services so that we can work with you to develop a fair and appropriate cost sharing strategy. Cost sharing agreements such as these are common between resource industry developers and municipal governments in western Canada and reflect the nature of the partnering approach that is required for projects such as the proposed Southey project to succeed.

We would also like to thank you for the invitation to attend the March 29, 2016 Inter Municipal Advisory Committee meeting. This meeting provided considerable clarity regarding your company's community involvement approach and your intentions to further dialogue with municipalities such as ourselves who will be affected by the proposed potash development. Given the scope of these impacts, we respectfully request that YanCoal provide financial support to the Rural Municipality of McKillop No. 220 to allow our meaningful participation in the environmental assessment process. We anticipate that when the EIS document is made available to us, considerable staff time along with expertise drawn from outside of the Rural Municipality will be required to thoroughly review and respond to the many dimensions of the EIS that will impact our community. We are aware that other potash companies in Saskatchewan have provided such support to municipalities and First Nations, and ask that YanCoal do the same.

We thank you in advance for your time and attention and look forward to your timely response. Our next Council meeting is scheduled for May 9, 2016. Any information you could provide in advance of this meeting date would be greatly appreciated.

Sincerely,

Michele Cruise-Pratchler, R. M. A. CPA CGA BAccS
Administrative Financial Officer

YANCOAL
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May 2, 2016

Michele Cruise-Pratchler, R.M.A., CPA, CGA, BAccS
Administrative Financial Officer
Rural Municipality of McKillop No. 220
P.O. Box 40, Strasbourg, SK, S0G 4V0

Dear Michele,

On behalf of Yancoal Canada, I would like to thank you and your RM for your involvement and support to the Southey project. Now I am writing in response to your letter dated: April 21, 2016 requesting additional information regarding the Yancoal Southey Project.

As you know, the Environmental Impact Statement (EIS) and Technical Review Comments have been released for public review effective April 23, 2016. In particular, I draw your attention to the Review Comments prepared by the province's Environmental Assessment Branch which outline requirements of the environmental review process and identify the key issues and studies addressed in the EIS.

Both documents can be found at the Ministry of Environment website: http:www.environment.gov.sk.ca/ea2015-003. In addition, you can find guidance on how to submit public comments at http:www.environment.gov.sk.ca/PublicParticipationinTheEAProcessFactSheet.

Much of the information you are looking for can be found in both the EIS and the Technical Review Comments. I would also note that following the environmental approval of the project in Licensing and Permitting phase of the project, additional information will be available with further work.

In response to your specific concerns, I would make the following comments:

- The 30 day public review period with the potential extension of 30 days is standard procedure for all projects. To ensure the public has access to full information on the project, Yancoal is planning for two workshops (tentatively set for May 10 and 11) in Earl Grey and Southey (or Strasbourg), respectively. The format of workshops would be conducted as a come and go basis in order to accommodate as many schedules as possible. Subject matter experts will be available

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to help people understand the information provided in the EIS and clarify any concerns/questions. Please encourage your ratepayers, residents and others to come and meet with us during these sessions. Also, Yancoal is available in person, by email or by phone to answer any questions related to the EIS.

- In response to the additional documents you requested, the Aggregate Study Report was sent by Robin Kusch to your office on February 12, 2016 and a Socio-Economic effects assessment is included in the EIS (Section 16).
    - Supporting Infrastructure (Water, Waste Water, Power, Natural Gas, Telecommunication, roads and rails) are all in the initial stages of design. As mentioned previously, for all utilities, the service providers (SaskWater, Sasktel, etc) are responsible for engineering, environmental studies/engagement and construction in relation to their components. For the Feasibility Study or Environmental Assessment stage (this stage of the project), Yancoal has no detailed design information pertaining to roads, as this will be part of the next stage (Licensing and permitting).
    - HR and HSSE Management systems will also be detailed in next stage of the project, a general overview is provided in the EIS.
- Road upgrades: Grid road 731 has been proposed as the main access road from highway 6 and further work will be undertaken on road closures and upgrades in the next stage of the project. A Traffic Assessment was provided earlier to the RMs and is available in the EIS (Appendix 4-C).
- Rail Line: Rail service providers are responsible for route selection, environmental studies land acquisition, engineering and construction. The EIS included only the Mine site and well-field area. Like other off-site infrastructure, both CN and CP have completed desktop studies only and no field work or detailed design has been carried out by either providers. Any detailed design and field work will be done in the next stage of the project.
- Regarding studies for additional housing, utilities, education, recreation, policing and emergency services, Yancoal has taken the initial step in this direction by establishing the Inter-Municipal Advisory Committee (IMAC) and we are thankful for your involvement. Such work will be included in the next stage of the project and the IMAC will be consulted while developing related management plans. Yancoal understands the nature of agreements that will be required for the project to be developed. Yancoal will coordinate with all those municipalities who will be

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directly impacted once project is fully approved and the camp locations and road access has been finalized.

- Regarding your request for financial support to review EIS, Yancoal engaged Golder Associates Ltd - a Canadian company who has over 50 years of experience working in the potash Industry - to carry out the environmental studies and complete the authoring of the EIS. The process itself is very rigorous and took over three years to complete. Yancoal's EIS has gone through all the steps/processes required by Saskatchewan Ministry of Environment, as other junior potash companies in Saskatchewan did. The Ministry has found the EIS to be technically sufficient and has released it for public review. Furthermore, Yancoal has been advised not to be seen as influencing the environmental review process by providing financial assistance to third parties. Therefore, unfortunately we have to decline your request for financial support at this time.

If you need any further information, please do not hesitate to contact me.

Yours sincerely,

Asad Naqvi, P. Eng.
Lead – Project Coordination Department

Cc: Jiqiu Han, President

Robin Kusch, Lead – Public and Community Relations

APPENDIX B

PUBLIC REVIEW EXTENSION REQUEST

Rural Municipality of McKillop No. 220

Office address:
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Mailing Address:
P. O. BOX 40
STRASBOURG, SASKATCHEWAN

April 21, 2016

Aimann Sadik
Senior EA Administrator
Environmental Assessment Branch
Saskatchewan Ministry of Environment
3211 Albert Street, 4th Floor
Regina, SK
S4S 5W6

RE: YanCoal – Southey Project, 2015-003: Public Review and Comments Notice

We understand that the proposed YanCoal Southey Project will be located approximately 60 km north of Regina, adjacent to our municipal boundary within the Rural Municipalities of Longlaketon and Cupar. The Rural Municipality of McKillop No. 220 requests an extension of the public review and comment period from the current 30 days to 60 days. An extension of the comment period is required for the following reasons:

Document Length
The individual documents that comprise the EIS are over 3,000 pages long. We would have to read and analyze over 100 pages per day before the end of the comment period to read the entire document and make informed decisions. Additional time is required for adequate review by individuals in our municipality.

Document Complexity
The document encompasses multiple projects including the mine sites, mine processing facilities, tailings management areas, site infrastructure, supporting infrastructure, domestic and industrial waste management systems, health management systems, safety management systems, security management systems, and environmental management systems. The document is complex. It is not readily understandable, clear, or concise. As written, it excludes many residents of our municipality from meaningfully participating in its review. Additional time is required for technical experts to fully understand the document and make it accessible for a greater number of our residents.

Information Availability
Although the document is intended to predict and quantify environmental impacts of the project, the predictions are only as good as the studies and analyses conducted by YanCoal. We cannot meaningfully analyze and evaluate the conclusions about the impacts of the mine without also evaluating the underlying studies on which the document is based. It will take time to read and understand the work that was completed to evaluate the assumptions that the findings are based upon.

Consultation Deficiencies
We are concerned that we were not provided with an opportunity to contribute to or review the infrastructure and utility upgrades that are proposed within our municipal boundaries. Given the impact that these upgrades could have on our residents and ratepayers we request an extension of the review period.

Thank you for attention to this request. I look forward to hearing your response in a timely manner.

Sincerely,

Michele Cruise-Pratchler, R. M. A. CPA CGA BAccS
Administrative Financial Officer

APPENDIX C

CROP REPORTS

Government of Saskatchewan

Crop Report

Published by the Ministry of Agriculture
ISSN 0701 7085
Report number 04, May 18, 2016

For the Period May 10 to 16, 2016

Despite a cool and wet start to the week, seeding is advancing at a remarkable rate, according to Saskatchewan Agriculture's weekly Crop Report. Fifty-one per cent of the crop is now seeded, well ahead of the five-year (2011-2015) average of 28 per cent for this time of year. Some producers have wrapped up seeding operations, while others will need another couple weeks of warm and dry weather.

Seeding is most advanced in the southwest, where producers have 70 per cent of the crop in the ground. Sixty per cent of the crop is seeded in the southeast; 56 per cent in the northwest; 53 per cent in the west-central region; 30 per cent in the east-central region and 29 per cent in the northeast.

One year ago

Sixty-four per cent of the crop had been seeded. Cool temperatures were delaying crop emergence and growth. Frost damaged crops in some areas. Soil moisture conditions varied throughout the province with many areas needing warm weather.

Follow the 2016 Crop Report on Twitter @SKAgriculture

Seeding Progress in SK Per cent seeded All Crops	
May 16, 2016	**51**
May 18, 2015	64
May 19, 2014	22
May 13, 2013	8
May 14, 2012	22
May 16, 2011	23
5 year avg. (2011-2015)	**28**
10 year avg. (2006-2015)	**32**

Eighty-four per cent of the field peas, 80 per cent of the lentils, 78 per cent of the chickpeas, 63 per cent of the durum, 57 per cent of the mustard, 51 per cent of the spring wheat and 39 per cent of the canola have now been seeded.

Topsoil moisture conditions have greatly improved in many regions thanks to the recent rain. However, some areas in the province will still need rain in the coming weeks to help crops germinate and emerge. Cropland topsoil moisture is rated as six per cent surplus, 77 per cent adequate, 13 per cent short and four per cent very short. Hay land and pasture topsoil moisture is rated as three per cent surplus, 71 per cent adequate, 21 per cent short and five per cent very short.

The majority of the province received rain last week, ranging from trace amounts to nearly 100 mm. Frost struck some areas last week, although damage appears to be minimal as most vulnerable crops have not yet emerged.

Producers are busy seeding and controlling weeds.

For further information, contact Shannon Friesen, PAg,
Cropping Management Specialist, Moose Jaw, Regional Services Branch,
Toll Free: 1-866-457-2377 or 306-694-3592, E-mail: cropreport@gov.sk.ca.
Also available on the Ministry of Agriculture website at www.agriculture.gov.sk.ca.

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

SCIC Saskatchewan Crop Insurance Corporation

Southeastern Saskatchewan (Crop District 1 – Carnduff, Estevan, Redvers, Moosomin and Kipling areas; Crop District 2 – Weyburn, Milestone, Moose Jaw, Regina and Qu'Appelle areas; Crop District 3ASE – Radville and Lake Alma areas)

Cool and wet field conditions slowed down seeding this past week as many producers were not able to get into the field until the weekend. Sixty per cent of the crop is now seeded in the region, up from 51 per cent last week. The five-year (2011-2015) seeding average for this time of year is 22 per cent.

Southeastern Saskatchewan	
Crop District	**% seeded (May 16, 2016)**
1A	42
1B	59
2A	92
2B	53
3ASE	92
Region average	**60**

Rainfall ranged from small amounts to 83 mm in the Briercrest area. The Marquis area has received the greatest amount of rainfall for the region since April 1 (126 mm).

Topsoil moisture conditions greatly improved in the region, thanks to recent rainfall; however, some parts of the region will need rain in the coming weeks to help crops germinate and emerge. Cropland topsoil moisture is rated as six per cent surplus, 81 per cent adequate, 12 per cent short and one per cent very short. Hay land and pasture topsoil moisture is rated as three per cent surplus, 70 per cent adequate, 26 per cent short and one per cent very short. Crop District 1A is reporting that 23 per cent of cropland and 47 per cent of hay land and pasture is short topsoil moisture at this time. CD 2A is reporting 20 per cent of cropland and 50 per cent of hay land and pasture to be short topsoil moisture.

Many producers are expecting to wrap up seeding operations within the next week or so, while others will need warm and dry weather before they can return to the field. Some areas had frost over several nights, but damage is expected to be minimal as most vulnerable crops have not yet emerged. Farmers are busy seeding, rolling pulses and controlling weeds.

Southwestern Saskatchewan (Crop District 3ASW – Coronach, Assiniboia and Ogema areas; Crop District 3AN – Gravelbourg, Mossbank, Mortlach and Central Butte areas; Crop District 3B – Kyle, Swift Current , Shaunavon and Ponteix areas; Crop District 4 – Consul, Maple Creek and Leader areas)

While some producers were able to finish seeding prior to the rain, many others in the region were not able to get back into the field until closer to the weekend. Seventy per cent of the crop is now in the ground, up from 58 per cent last week. The five-year (2011-2015) seeding average for this time of year is 46 per cent.

Southwestern Saskatchewan	
Crop District	**% Seeded (May 16, 2016)**
3ASW	59
3AN	66
3BS	69
3BN	73
4A	76
4B	80
Region average	**70**

Rainfall in the region ranged from trace amounts to 98 mm in the Eyebrow area. Since April 1, the Admiral area has received 140 mm of rain, the greatest amount for

both the region and the province.

Topsoil moisture conditions have improved in some parts of the region, thanks to the recent rain; however, the northwestern part of the region remains dry and rain will be needed soon to help crops germinate and emerge. Cropland topsoil moisture is rated as six per cent surplus, 81 per cent adequate, seven per cent short and seven per cent very short. Hay land and pasture topsoil moisture is rated as four per cent surplus, 80 per cent adequate, 12 per cent short and four per cent very short. Crop District 4B is reporting that 38 per cent of the cropland and 50 per cent of the hay land and pasture is very short topsoil moisture at this time.

Most producers are expected to wrap up seeding in the next week or so if the weather co-operates. Some areas in the region reported frost, although damage is expected to be minimal as most vulnerable crops have not yet emerged. Farmers are busy seeding, rolling pulses and controlling weeds.

East-Central Saskatchewan (Crop District 5 – Melville, Yorkton, Cupar, Kamsack, Foam Lake, Preeceville and Kelvington areas; Crop District 6A – Lumsden, Craik, Watrous and Clavet areas)

Seeding continues in the region despite the recent cool and wet conditions. Thirty per cent of the crop is now in the ground, up from 17 per cent last week. The five-year (2011-2015) seeding average for this time of year is 16 per cent. The recent rain was welcomed in much of the region, although warm and dry weather is now needed to help dry up some fields.

East-central Saskatchewan	
Crop District	**% Seeded (May 16, 2016)**
5A	31
5B	20
6A	38
Region average	**30**

Rainfall last week ranged from small amounts to 80 mm in the Bethune area, bringing its total since April 1 to 95 mm.

Topsoil moisture conditions have improved in much of the area. Cropland topsoil moisture conditions are rated as five per cent surplus, 93 per cent adequate and two per cent short. Hay land and pasture topsoil moisture is rated as two per cent surplus, 92 per cent adequate and six per cent short.

Frost was reported over several nights last week; however, crop damage is expected to be minimal as most vulnerable crops had either not been seeded or have yet to emerge. Farmers are busy seeding, controlling weeds and working fields.

West-Central Saskatchewan (Crop Districts 6B – Hanley, Outlook, Loreburn, Saskatoon and Arelee areas; Crop District 7A – Rosetown, Kindersley, Eston, Major; Crop District 7B - Kerrobert, Macklin, Wilkie and Biggar areas)

Seeding has significantly advanced in the region and 53 per cent of the crop is now in the ground, up from 26 per cent last week. The five-year (2011-2015) seeding average for this time of year is 30 per cent. Although some parts of the region received much-needed moisture last week, additional rainfall is still needed to help crops germinate and emerge.

West-central Saskatchewan	
Crop District	**% Seeded (May 16, 2016)**
6B	37
7A	49
7B	75
Region average	**53**

Rainfall in the region ranged from trace amounts to 68 mm in the Outlook area. The Outlook area holds the regional record for the greatest amount of rainfall received since April 1 (75 mm).

Topsoil moisture conditions on cropland are rated as one per cent surplus, 55 per cent adequate, 30 per cent short and 14 per cent very short. Hay land and pasture topsoil moisture is rated as one per cent surplus, 57 per cent adequate, 23 per cent short and 19 per cent very short. At this time, Crop District 7B is reporting that 28 per cent of the cropland and 39 per cent of the hay land and pasture are very short topsoil moisture. Additional moisture will be needed in the coming weeks to improve field and pasture conditions.

Some producers will be finishing seeding operations in the coming week, while others will need another few weeks. Frost was reported over several nights last week in much of the region. Damage is expected to be minimal for most crops and alfalfa fields; however, field assessments continue as some areas dipped well below zero.

Farmers are busy seeding, controlling weeds and rolling pulses.

Northeastern Saskatchewan (Crop District 8 – Hudson Bay, Tisdale, Melfort, Carrot River, Humboldt, Kinistino, Cudworth and Aberdeen areas; Crop District 9AE – Prince Albert, Choiceland and Paddockwood areas)

Good seeding progress was made this past week once producers were able to get back into the field after the rain. Twenty-nine per cent of the crop is now in the ground, up from 23 per cent last week. The five-year (2011-2015) seeding average for this time of year is 17 per cent. While some producers were able to continue seeding over the weekend, warm and dry weather is needed in some parts of the region before fields can support equipment.

Northeastern Saskatchewan	
Crop District	**% Seeded (May 16, 2016)**
8A	23
8B	24
9AE	61
Region average	**29**

Rainfall ranged from small amounts to 38 mm in the Nipawin area. The Nipawin area holds the regional record for the greatest amount of rainfall received since April 1 (81 mm).

Topsoil moisture conditions have worsened as many fields now have localized flooding from the heavy rain last week. Warm, dry and windy weather is needed to help fields dry up. Cropland topsoil moisture conditions are rated as 18 per cent surplus, 81 per cent adequate and one per cent short. Hay land and pasture topsoil moisture is rated as 13 per cent surplus, 86 per cent adequate and one per cent short. Crop District 8A is reporting that 38 per cent of cropland and 25 per cent of hay land and pasture have surplus topsoil moisture at this time.

Frost was reported over several nights last week; however, as most vulnerable crops were not yet seeded or had not yet emerged, damage is expected to be minimal. Many roads and fields remain soft from excess moisture.

Farmers are busy seeding, controlling weeds and working fields as field conditions permit.

Northwestern Saskatchewan (Crop District 9AW – Shellbrook, North Battleford, Big River and Hafford areas; Crop District 9B – Meadow Lake, Turtleford, Pierceland, Maidstone and Lloydminster areas)

The number of seeded acres has almost tripled in the past week, thanks to warm and dry weather. Fifty-six per cent of the crop is now seeded, up from 21 per cent last week. The five-year (2011-2015) seeding average for this time of year is 31 per cent. Fields remain dry in many areas of the region and rain is needed soon to help crops germinate and emerge.

Northwestern Saskatchewan	
Crop District	**% Seeded (May 16, 2016)**
9AW	39
9B	71
Region average	**56**

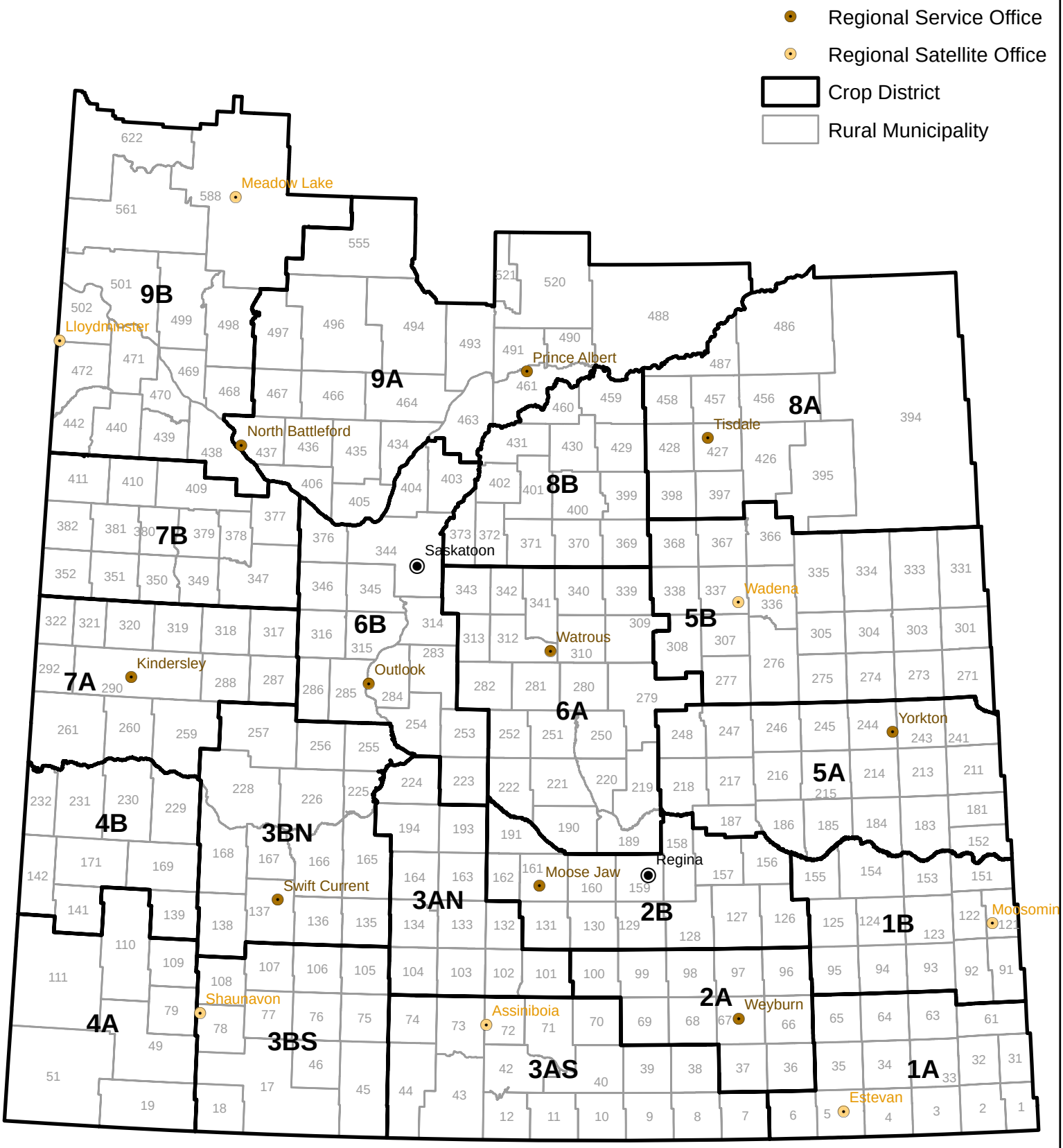
The region reported receiving the least amount of rainfall in the province last week. Rainfall ranged from trace amounts to 10 mm in the Duck Lake area. The Meadow Lake area holds the regional record for greatest amount of rainfall received since April 1 (20 mm).

Topsoil moisture conditions have deteriorated in much of the region. Cropland topsoil moisture is rated as one per cent surplus, 54 per cent adequate, 42 per cent short and three per cent very short. Hay land and pasture topsoil moisture is rated as 31 per cent adequate, 59 per cent short and 10 per cent very short. Crop District 9B is reporting that six per cent of the cropland and 14 per cent of the hay land and pasture are very short topsoil moisture at this time.

Some producers will be finishing up seeding operations in the coming week, while others will need another few weeks. Frost was reported over several nights last week in much of the region. Damage is expected to be minimal for most crops and alfalfa fields; however, field assessments continue as some areas dipped well below zero.

Farmers are busy seeding, controlling weeds and working fields.

Crop Districts and Rural Municipalities in Saskatchewan



Government of Saskatchewan

0 25 50 100 150 200
Kilometers

Projection: UTM Zone 13 Datum: NAD83

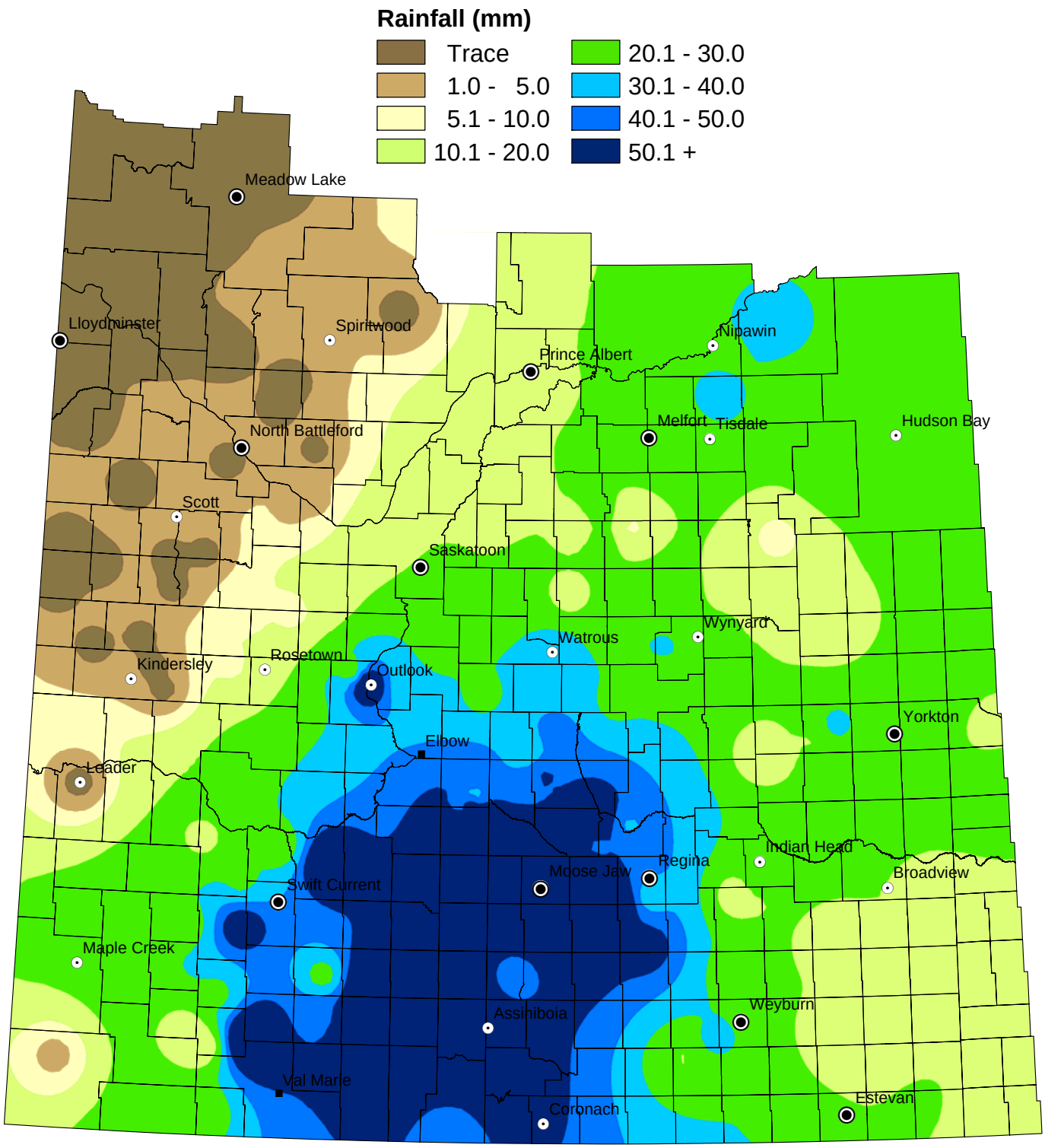
N

Data Source:
Crop Districts - Saskatchewan Ministry of Agriculture

Geomatic Services, Ministry of Agriculture June 10, 2014

Weekly Rainfall

from May 10 to May 16, 2016



NOTE: Since techniques used to smooth the transition between zones can affect the values in localized areas, this map should be used for regional analysis only.

Government of Saskatchewan

0 25 50 100 150 200

Kilometers

Projection: UTM Zone 13 Datum: NAD83

N

Data Source:
Rainfall - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 18, 2016

Weekly Rainfall Summary

(in millimeters) 1 inch = 25 mm for the period May 10 to 16, 2016

Crop Dist.	R.M. No.	Name	Past Week	Since 1-Apr
1A	2	Mount Pleasant	15	54
	3	Enniskillen	22	48
	33	Moose Creek	N/A	32
	34	Browning	N/A	27
	61	Antler	N/A	N/A
	64	Brock	12	35
	65	Tecumseh	10	55
1B	91	Maryfield	6	48
	122	Martin	15	56
	123	Silverwood	15	52
	124 A	Kingsley	20	59
	124 B	Kingsley	N/A	N/A
	125 A	Chester	13	42
	125 B	Chester	16	60
	151	Rocanville	21	50
	154	Elcapo	20	53
	155	Wolseley	23	48
2A	67	Weyburn	N/A	32
	68	Brokenshell	32	60
	97	Wellington	24.5	34.5
2B	127 A	Francis	19	38
	127 B	Francis	12.5	20
	129	Bratt's Lake	57	64
	131 A	Baildon	83	89
	131 B	Baildon	70	110
	156 A	Indian Head	24.5	38.4
	156 B	Indian Head	30	63
	159	Sherwood	34	44
	160	Pense	50	55
	161	Moose Jaw	67	76
	162	Caron	66.5	82.5
	191	Marquis	63.5	125.5
3ASE	38 A	Laurier	25.4	58.2
	38 B	Laurier	19	42
	39	The Gap	24	62
3ASW	10	Happy Valley	36	87
	12	Poplar Valley	N/A	38
	40	Bengough	N/A	N/A
	42	Willow Bunch	67	97
	43	Old Post	42	85
	73 A	Stonehenge	76.2	95.2
	73 B	Stonehenge	67	89
3AN	101	Terrell	N/A	N/A
	102	Lake Johnston	41.2	56.4
	103	Sutton	60	68
	132 A	Hillsborough	68	83.5
	132 B	Hillsborough	74	102
	134	Shamrock	N/A	17
	193 A	Eyebrow	71	78
	193 B	Eyebrow	98	106
3BS	17	Val Marie	N/A	38.9
	18	Lone Tree	24	125.4
	75	Pinto Creek	70	97
	76	Auvergne	44	68
	77	Wise Creek	90	140
	78	Grassy Creek	11.5	79.6
	105	Glenbain	80	110
	106	Whiska Creek	26	50
	107	Lac Pelletier	N/A	19
	108	Bone Creek	28	81
3BN	138 A	Webb	N/A	65.5
	138 B	Webb	60	92
	166	Excelsior	73	87
	167	Sask. Landing	23	67.97
	168 A	Riverside	28	76
	168 B	Riverside	18	25
	226	Victory	N/A	N/A
	228	Lacadena	20	54
	257	Monet	30	62

Crop Dist.	R.M. No.	Name	Past Week	Since 1-Apr
4A	49	White Valley	N/A	64
	51	Reno	3.8	58.9
	79	Arlington	14	83
	109 A	Carmichael	N/A	49
	109 B	Carmichael	83	178
	110	Piapot	22	73
	111	Maple Creek	N/A	41.3
4B	139	Gull Lake	25	102
	142	Enterprise	N/A	31
	231	Happyland	0	19
5A	183	Fertile Belt	28	71
	211	Churchbridge	25	56
	213	Saltcoats	20	30
	241	Calder	16	16
	243	Wallace	24	39
	244	Orkney	22	30
	245 A	Garry	32	59
	245 B	Garry	24	34
	245 C	Garry	16	33
	246	Ituna Bon Accord	11	20
	247	Kellross	N/A	21
	248	Touchwood	N/A	8
5B	271	Cote	20	20
	273	Sliding Hills	30	67
	277	Emerald	25	40
	305	Invermay	13	33
	307	Elfros	20	61
	308 A	Big Quill	32	39
	308 B	Big Quill	20	55
	331	Livingston	19	24.5
	336	Sasman	12	29
	337	Lakeview	12	43
	338	Lakeside	28	52
	366	Kelvington	7	30
	367	Ponass Lake	33	64.5
6A	190 A	Dufferin	80	95
	190 B	Dufferin	N/A	28
	190 C	Dufferin	62	85
	190 D	Dufferin	40	44
	219 A	Longlaketon	N/A	2
	219 B	Longlaketon	39	68
	220	McKillop	33	38
	221 A	Sarnia	50.8	68.2
	221 B	Sarnia	50	62
	222	Craik	40	53
	251	Big Arm	44	44
	252	Arm River	30	46
	279	Mount Hope	27.7	34.3
	282	McCraney	27	42
	312	Morris	35	37
	313	Lost River	N/A	N/A
	339	Leroy	22.4	43.6
	340	Wolverine	17	25
	341	Viscount	N/A	12
	343	Blucher	20	27
6B	223 A	Huron	35	47
	223 B	Huron	68	74.5
	284	Rudy	30	41
	285 A	Fertile Valley	25.5	42
	285 B	Fertile Valley	32.9	36.9
	286	Milden	28	45
	314	Dundurn	25	32
	344	Corman Park	17	31
	346	Perdue	11	41
	376	Eagle Creek	6	14
	403	Rosthern	12	17

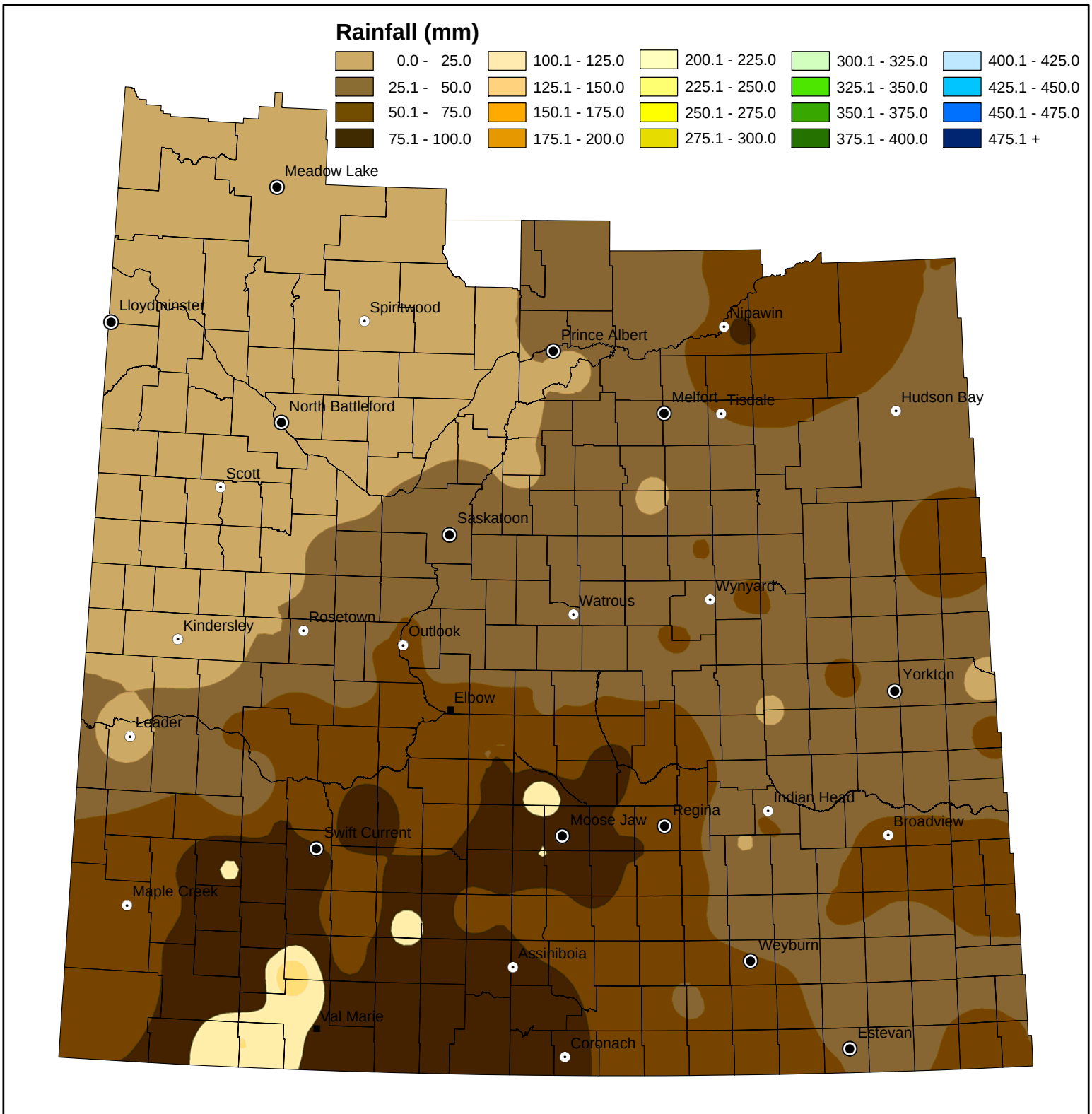
Crop Dist.	R.M. No.	Name	Past Week	Since 1-Apr
7A	287	St. Andrews	14	35
	288	Pleasant Valley	8	23
	290 A	Kindersley	NIL	8.7
	290 B	Kindersley	NIL	7.8
	290 C	Kindersley	N/A	9
	292	Milton	N/A	27
	317 A	Marriott	N/A	16
	317 B	Marriott	8	29
	318	Mountain View	7	19
	320 A	Oakdale	NIL	10.5
	320 B	Oakdale	N/A	10
	321	Prairiedale	NIL	19
7B	347	Biggar	NIL	4
	350 A	Mariposa	NIL	6.2
	350 B	Mariposa	NIL	5
	351	Progress	NIL	8
	352	Heart's Hill	NIL	20
	377	Glenside	4	5
	378	Rosemount	1	4
	379	Reford	NIL	4
	381	Grass Lake	N/A	3
	382	Eye Hill	NIL	20.2
	409	Buffalo	N/A	N/A
	410	Round Valley	NIL	NIL
8A	395	Porcupine	24	46
	397	Barrier Valley	N/A	26.7
	428	Star City	29	61
	456	Arborfield	25	68
	457	Connaught	34	64
	486	Moose Range	38	58
	487	Nipawin	27	81
8B	369	St. Peter	9	16
	370 A	Humboldt	24	31
	370 B	Humboldt	16	26
	371	Bayne	N/A	9
	372	Grant	19.6	27.3
	400	Three Lakes	23	40
	402	Fish Creek	15	22
	429	Flett's Springs	22	30
	459	Kinistino	22	32
	460	Birch Hills	18.3	22.6
9AE	488	Torch River	21	46
	520	Paddockwood	N/A	24.5
	521	Lakeland	N/A	24.5
9AW	406	Mayfield	4	6
	435	Redberry	N/A	8
	436	Douglas	NIL	NIL
	463	Duck Lake	10	13
	467 A	Round Hill	NIL	6
	467 B	Round Hill	NIL	NIL
	494	Canwood	NIL	17
9B	438	Battle River	NIL	NIL
	440	Hillsdale	N/A	4
	442	Manitou Lake	NIL	6.4
	498 A	Parkdale	NIL	2
	498 B	Parkdale	N/A	NIL
	499 A	Mervin	NIL	5
	499 B	Mervin	N/A	N/A
	501 A	Frenchman Butte	NIL	7
	501 B	Frenchman Butte	NIL	4
	501 C	Frenchman Butte	N/A	2
	502	Britannia	NIL	NIL
	561	Loon Lake	NIL	10
	588 A	Meadow Lake	NIL	20
	588 B	Meadow Lake	NIL	14
	622	Beaver River	N/A	1.3

These precipitation amounts represent point locations within each municipality and do not necessarily reflect the whole R. M.

Municipality No: A, B, C and D - more than one reporter

Cumulative Rainfall

from April 1 to May 16, 2016



NOTE: Since techniques used to smooth the transition between zones can affect the values in localized areas, this map should be used for regional analysis only.

Government of Saskatchewan

0 25 50 100 150 200

Kilometers

Projection: UTM Zone 13 Datum: NAD83

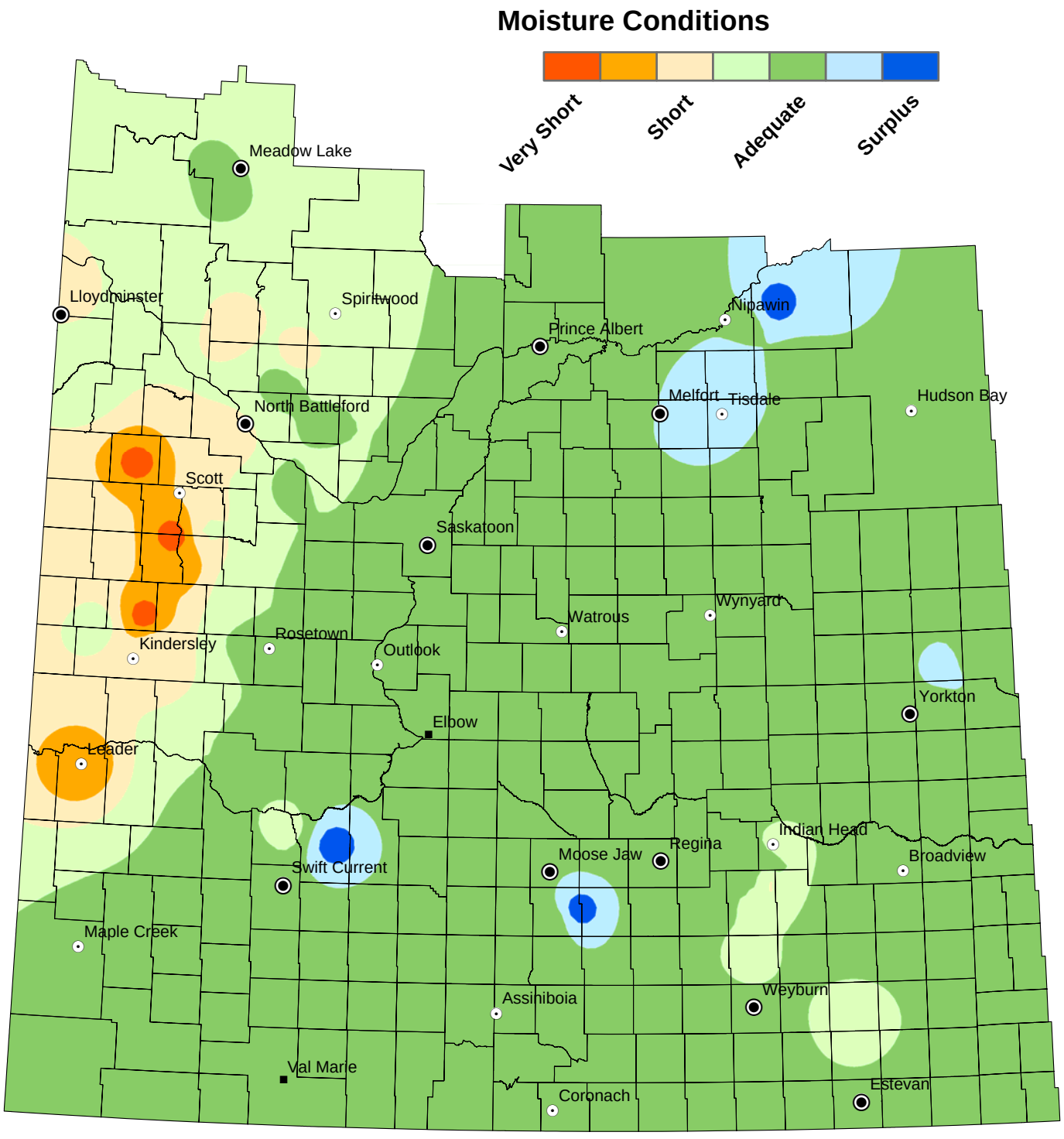
N

Data Source:
Rainfall - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 18, 2016

Cropland Topsoil Moisture Conditions

May 16, 2016



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Kilometers

Projection: UTM Zone 13 Datum: NAD83

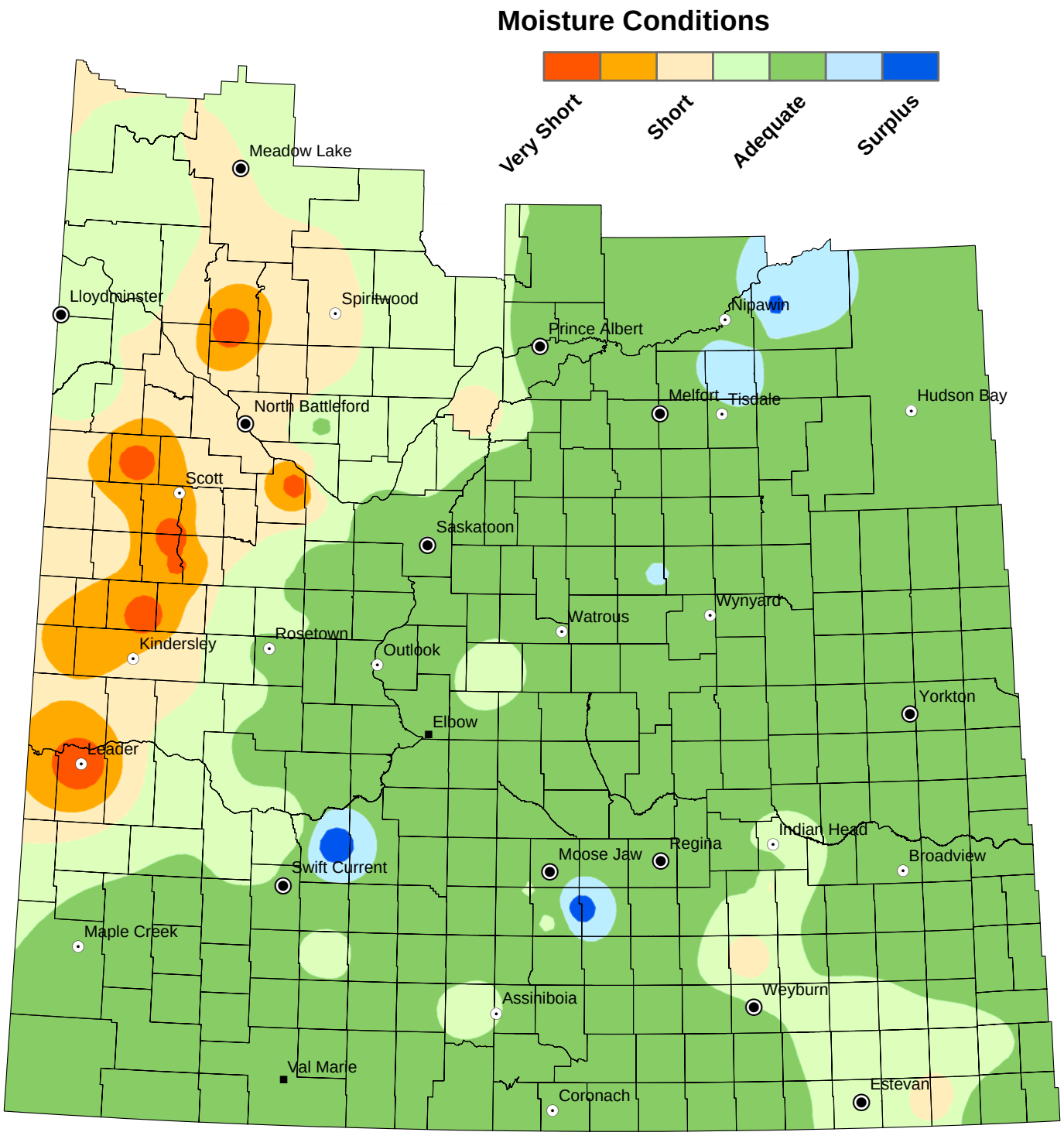
N

Data Source:
Moisture - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 18, 2016

Hay and Pasture Topsoil Moisture Conditions

May 16, 2016



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0 25 50 100 150 200

Kilometers

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Moisture - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 18, 2016

Government of Saskatchewan

Crop Report

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Report number 02, May 5, 2016

For the Period April 26 to May 2, 2016

Thanks to warm and dry weather, Saskatchewan producers have 15 per cent of the 2016 crop seeded, according to Saskatchewan Agriculture's weekly Crop Report. The five-year (2011-2015) seeding average for this time of year is four per cent. Many producers in the south have been seeding for several weeks, while those in the rest of the province are just getting into the field.

One year ago
Fourteen per cent of the 2015 crop had been seeded thanks to warm and dry weather. Thirty-two per cent of the field peas had been seeded, 29 per cent of the lentils, 33 per cent of the mustard, 25 per cent of the durum and eight per cent of the spring wheat and canola.
Follow the 2016 Crop Report on Twitter @SKAgriculture

Seeding is most advanced in the southwest, where producers have 35 per cent of the crop in the ground. Eighteen per cent of the crop is seeded in the southeast; six per cent in the west-central region; three per cent in the northwest; two per cent in the east-central region; and one per cent in the northeast.

Provincially, 35 per cent of the lentils have been seeded; 31 per cent of the field peas; 26 per cent of the mustard; 24 per cent of the chickpeas; 22 per cent of the durum; 15 per cent of the soybeans; 11 per cent of the barley; nine per cent of the flax; eight per cent of the canola; seven per cent of the spring wheat and canaryseed and six per cent of the oats.

Very little to no rain fell on the province last week, although parts of the southwest received about half an inch. Many parts of the south and west will need rain soon to help crops germinate and emerge. Cropland topsoil moisture is rated as two per cent surplus, 78 per cent adequate, 19 per cent short and one per cent very short. Hay land and pasture topsoil moisture is rated as one per cent surplus, 64 per cent adequate, 31 per cent short and four per cent very short.

Producers are busy seeding, controlling weeds, working fields and moving cattle.

Seeding Progress in SK Per cent seeded	
All Crops	
May 2, 2016	15
5 year avg. (2011-2015)	4
10 year avg. (2006-2015)	5

For further information, contact Shannon Friesen, PAg,
Cropping Management Specialist, Moose Jaw, Regional Services Branch,
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Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

SCIC SASKATCHEWAN CROP INSURANCE CORPORATION

Southeastern Saskatchewan (Crop District 1 – Carnduff, Estevan, Redvers, Moosomin and Kipling areas; Crop District 2 – Weyburn, Milestone, Moose Jaw, Regina and Qu'Appelle areas; Crop District 3ASE – Radville and Lake Alma areas)

Seeding is progressing nicely in the region as 18 per cent of the crop is now in the ground, up from four per cent last week. Seeding is the furthest advanced in Crop District 3ASE where 48 per cent of the crop has been seeded. CD 2A has 45 per cent seeded; 1A 14 per cent; 1B nine per cent and 2B eight per cent.

Forty-two per cent of the field peas, 30 per cent of the lentils, 22 per cent of the barley, 20 per cent of the mustard and spring wheat, 19 per cent of the durum, 15 per cent of the soybeans, 13 per cent of the canaryseed, 11 per cent of the canola and eight per cent of the flax have now been seeded.

A lack of rain this past week, coupled with very warm weather, is drying up fields in the area. Rain will be needed soon to help crops germinate and emerge and for pastures to green up. The Stoughton area has received the greatest amount of rainfall for the region since April 1 (45 mm).

Cropland topsoil moisture is rated as one per cent surplus, 70 per cent adequate, 27 per cent short and two per cent very short. Hay land and pasture topsoil moisture is rated as one per cent surplus, 55 per cent adequate, 42 per cent short and two per cent very short. CD 2A is reporting that 55 per cent of the cropland and 87 per cent of the hay land and pasture is short topsoil moisture at this time.

The majority of winter cereals in the region came through the winter in good shape, although there are reports that some fields have winterkill damage. There have been reports of field fires in some areas and there are concerns that fields are drying up faster than expected this spring. Some producers are considering changing their seeding intentions if moisture does not arrive soon.

Farmers are busy seeding, working fields, controlling weeds and fixing fences.

Seeding Progress by Crop District		
CD	**May 2/16**	**May 4/15**
1a	14	9
1b	9	9
2a	45	24
2b	8	7
3ase	48	60
3asw	10	19
3an	42	50
3bs	35	28
3bn	38	38
4a	29	48
4b	51	27
5a	1	7
5b	<1	1
6a	3	2
6b	5	7
7a	7	11
7b	5	7
8a	2	3
8b	1	1
9ae	<1	N/A
9aw	3	5
9b	2	9

Southwestern Saskatchewan (Crop District 3ASW – Coronach, Assiniboia and Ogema areas; Crop District 3AN – Gravelbourg, Mossbank, Mortlach and Central Butte areas; Crop District 3B – Kyle, Swift Current , Shaunavon and Ponteix areas; Crop District 4 – Consul, Maple Creek and Leader areas)

Producers in the southwest now have 35 per cent of the crop seeded, significantly up from eight per cent last week. Crop District 4B has 51 per cent of the crop in the ground, 3AN 42 per cent, 3BN 38 per cent, 3BS 35 per cent, 4A 29 per cent and 3ASW 10 per cent.

Fifty-four per cent of the lentils, 48 per cent of the field peas, 41 per cent of the barley, 39 per cent of the canola, 31 per cent of the mustard, 28 per cent of the chickpeas and canaryseed, 27 per cent of the durum, 20 per cent of the spring wheat and 10 per cent of the flax have now been seeded.

Very little rain was received this past week, although the Shaunavon area reported 17 mm. Since April 1, the Climax area has reported the greatest amount of precipitation (81 mm) for both the region and the province. Warm temperatures, high winds and a lack of precipitation are quickly drying up many fields in the region and there are concerns that crops may not germinate or emerge in some areas. Rain will be needed soon in much of the region.

Cropland topsoil moisture is rated as 79 per cent adequate, 19 per cent short and two per cent very short. Hay land and pasture topsoil moisture is rated as 48 per cent adequate, 47 per cent short and five per cent very short. CD 3BN is reporting that 45 per cent of the cropland and 66 per cent of the hay land and pasture is short topsoil moisture, while 19 per cent of the hay land and pasture is very short topsoil moisture at this time.

The majority of winter cereals in the region came through the winter in good shape, although there are reports that some fields have winterkill damage. Some producers are considering changing their seeding intentions if moisture does not arrive soon. There have been reports of field fires in some areas.

Farmers are busy seeding, working fields, controlling weeds and moving cattle.

East-Central Saskatchewan (Crop District 5 – Melville, Yorkton, Cupar, Kamsack, Foam Lake, Preeceville and Kelvington areas; Crop District 6A – Lumsden, Craik, Watrous and Clavet areas)

Seeding has just begun in the area as warm and dry weather allowed many producers to hit the field. Two per cent of the crop is now seeded in the region. CD 6A has three per cent seeded, 5A has one per cent seeded and 5B has less than one per cent seeded. General seeding for the region is expected to be underway in the next week or so.

Four per cent of the lentils, three per cent of the field peas and durum, two per cent of the canola and one per cent of the spring wheat and barley have been seeded.

There were no reports of moisture this past week. The Esterhazy area has received the greatest amount of precipitation since April 1 (43 mm). Topsoil moisture conditions on cropland are rated as six per cent surplus, 86 per cent adequate and eight per cent short. Hay land and pasture topsoil moisture is rated as three per cent surplus, 86 per cent adequate, eight per cent short and three per cent very short.

Pastures are starting to green up and producers are moving cattle. There have been a few reports of producers combining crops left over from last fall. The majority of winter cereals in the region came through the winter in good shape, although there are reports that some fields have winterkill damage.

Farmers are busy seeding, controlling weeds, moving cattle and working fields.

West-Central Saskatchewan (Crop Districts 6B – Hanley, Outlook, Loreburn, Saskatoon and Arelee areas; Crop District 7A – Rosetown, Kindersley, Eston, Major; CD 7B - Kerrobert, Macklin, Wilkie and Biggar areas)

Seeding is nicely underway in the west-central region as six per cent of the crop is now in the ground. Crop District 7A is reporting that seven per cent of the crop is seeded, while CDs 6B and 7B are both reporting five per cent. General seeding for the area will begin in the next week or so.

Eighteen per cent of the field peas, 13 per cent of the lentils, 10 per cent of the chickpeas, seven per cent of the durum and soybeans, three per cent of spring wheat and two per cent of the barley and canola have been seeded.

Very little rain fell in the region, with the Macklin area reporting the most (5 mm). The Macklin area has also recorded the greatest amount of rainfall for the region since April 1 (20 mm).

Topsoil moisture conditions on cropland are rated as one per cent surplus, 58 per cent adequate, 39 per cent short and two per cent very short. Hay land and pasture topsoil moisture is rated as one per cent surplus, 48 per cent adequate, 39 per cent short and 12 per cent very short. At this time, Crop District 7A is reporting that 56 per cent of the cropland and 51 per cent of the hay land and pasture are short topsoil moisture. A significant rain will be needed in the coming weeks to improve field and pasture conditions.

The majority of winter cereals in the region came through the winter in good shape, although there are reports that some fields have winterkill damage. Some producers are considering changing their seeding intentions if moisture does not arrive soon. There have been reports of cutworms and wireworms in some fields.

Farmers are busy working fields, seeding and controlling weeds.

Northeastern Saskatchewan (Crop District 8 – Hudson Bay, Tisdale, Melfort, Carrot River, Humboldt, Kinistino, Cudworth and Aberdeen areas; Crop District 9AE – Prince Albert, Choiceland and Paddockwood areas)

Thanks to warm and dry weather, producers in the northeast now have one per cent of the crop seeded. Crop District 8A has two per cent seeded, 8B has one per cent seeded and 9AE has less than one per cent seeded at this time. It is expected that general seeding will begin this week.

Eight per cent of the field peas, three per cent of the barley and one per cent of the spring wheat and durum have now been seeded.

There were no reports of moisture this past week. Since April 1, the Arborfield area has reported the greatest amount of precipitation in the region (33 mm).

Topsoil moisture conditions have improved in the region. Cropland topsoil moisture conditions are rated as six per cent surplus, 86 per cent adequate and eight per cent short. Hay land and pasture topsoil moisture is rated as three per cent surplus, 86 per cent adequate and 11 per cent short. Crop District 9AE is reporting that 15 per cent of the cropland and 13 per cent of the hay land and pasture have surplus topsoil moisture at this time.

Farmers are busy seeding, moving cattle and controlling weeds.

Northwestern Saskatchewan (Crop District 9AW – Shellbrook, North Battleford, Big River and Hafford areas; Crop District 9B – Meadow Lake, Turtleford, Pierceland, Maidstone and Lloydminster areas)

Seeding is underway in the region and three per cent of the crop is now in the ground. Warm and dry weather has allowed producers to get into the field much earlier than normal. Crop District 9AW is reporting that three per cent of the crop is seeded, while two per cent is seeded in CD 9B.

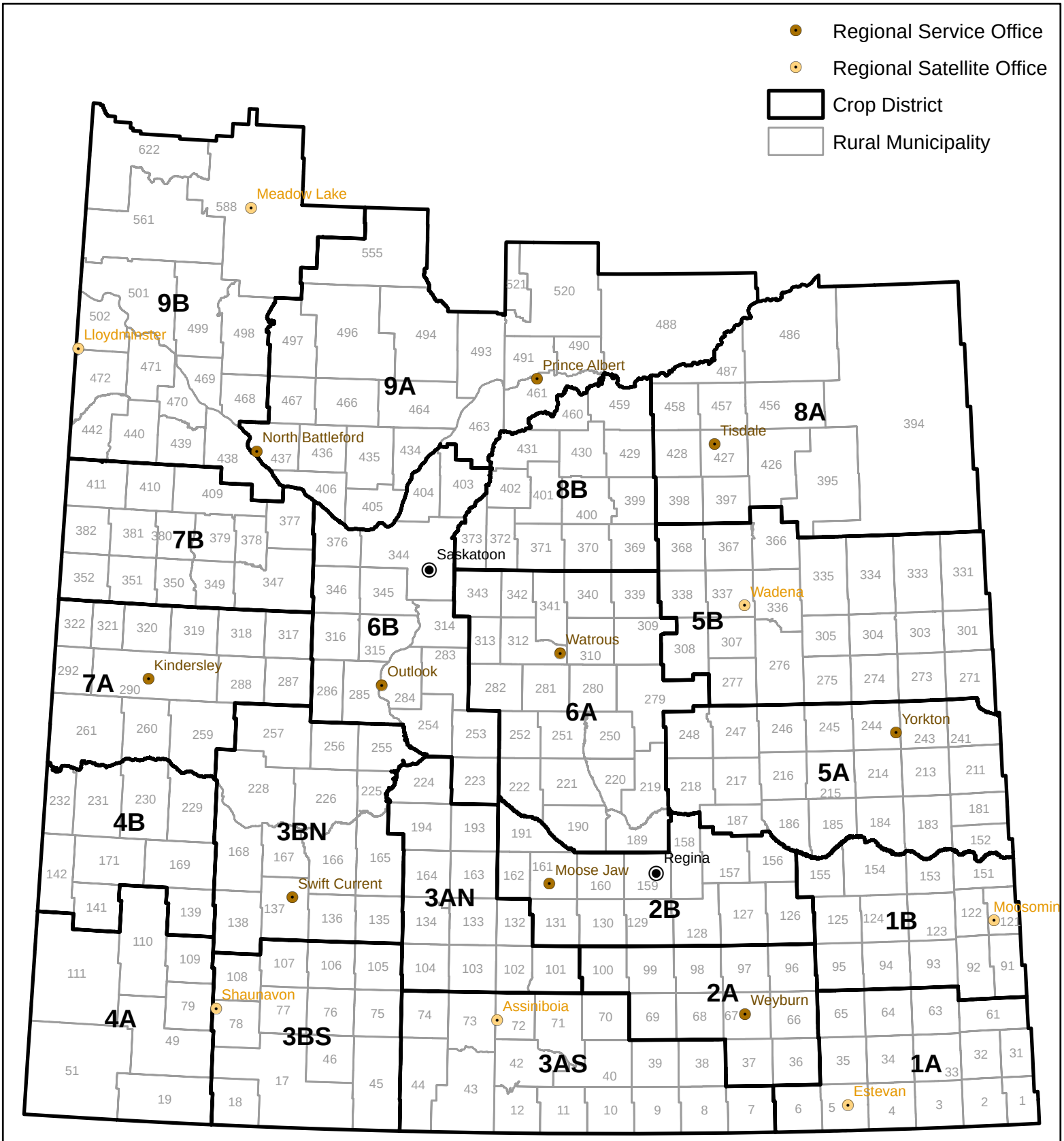
Four per cent of the field peas, three per cent of the canola and two per cent of the spring wheat have now been seeded.

Very little to no rain was reported this past week, although the Neilburg area received 0.5 mm. Since April 1, the Meadow Lake area has received 20 mm of precipitation, the greatest amount for the region.

Topsoil moisture conditions on cropland are rated as 93 per cent adequate and seven per cent short. Hay land and pasture topsoil moisture is rated as 84 per cent adequate and 16 per cent short. At this time, Crop District 9B is reporting that 13 per cent of the cropland and 20 per cent of the hay land and pasture is very short topsoil moisture.

Farmers are busy seeding, moving cattle, hauling grain, fixing fences and controlling weeds.

Crop Districts and Rural Municipalities in Saskatchewan



Government of Saskatchewan

0 25 50 100 150 200
Kilometers

Projection: UTM Zone 13 Datum: NAD83

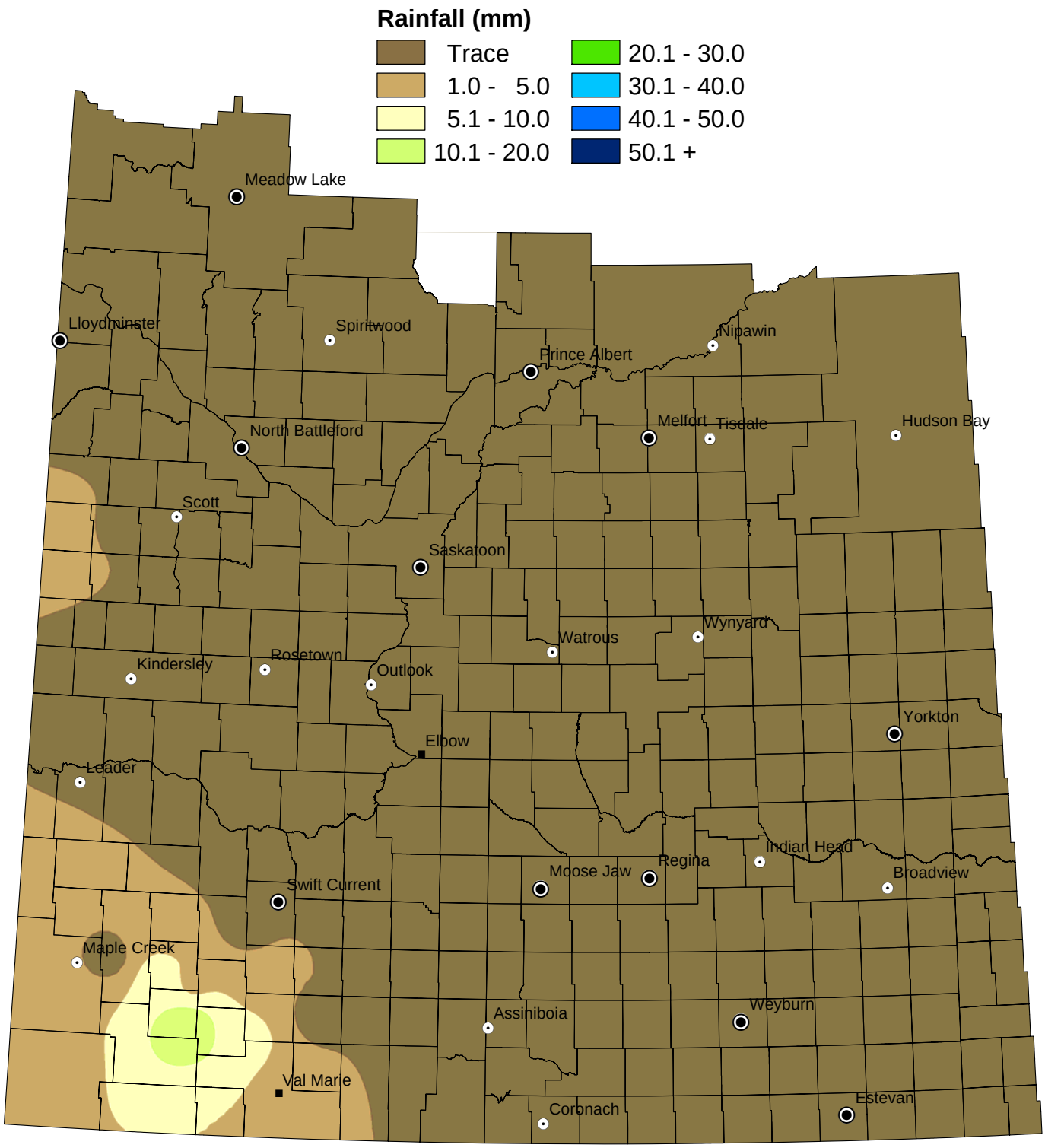
N

Data Source:
Crop Districts - Saskatchewan Ministry of Agriculture

Geomatic Services, Ministry of Agriculture June 10, 2014

Weekly Rainfall

from April 26 to May 2, 2016



NOTE: Since techniques used to smooth the transition between zones can affect the values in localized areas, this map should be used for regional analysis only.

Government of Saskatchewan

0 25 50 100 150 200

Kilometers

Projection: UTM Zone 13 Datum: NAD83

N

Data Source:
Rainfall - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 4, 2016

Weekly Rainfall Summary

(in millimeters) 1 inch = 25 mm for the period April 26 to May 2, 2016

Crop Dist.	R.M. No.	Name	Past Week	Since 1-Apr
1A	2	Mount Pleasant	NIL	39
	3	Enniskillen	NIL	26
	33	Moose Creek	NIL	32
	34	Browning	N/A	27
	61	Antler	N/A	N/A
	64	Brock	NIL	23
	65	Tecumseh	NIL	45
1B	91	Maryfield	NIL	42
	122	Martin	NIL	41
	123	Silverwood	NIL	37
	124 A	Kingsley	NIL	39
	124 B	Kingsley	N/A	29
	125 A	Chester	NIL	44
	125 B	Chester	NIL	28
	151	Rocanville	NIL	11
	154	Elcapo	N/A	33
	155	Wolseley	NIL	25
2A	67	Weyburn	NIL	30
	68	Brokenshell	NIL	26
	97	Wellington	NIL	10
2B	127 A	Francis	NIL	19
	127 B	Francis	NIL	7.5
	129	Bratt's Lake	NIL	7
	131 A	Baildon	NIL	6
	131 B	Baildon	N/A	10
	156 A	Indian Head	NIL	13.9
	156 B	Indian Head	NIL	33
	159	Sherwood	NIL	0
	160	Pense	NIL	5
	161	Moose Jaw	NIL	9
	162	Caron	NIL	16
	191	Marquis	NIL	NIL
3ASE	38 A	Laurier	NIL	32.8
	38 B	Laurier	NIL	19
	39	The Gap	NIL	30
3ASW	10	Happy Valley	N/A	43
	12	Poplar Valley	N/A	38
	40	Bengough	N/A	N/A
	42	Willow Bunch	NIL	30
	43	Old Post	NIL	23
	73 A	Stonehenge	NIL	19
	73 B	Stonehenge	NIL	22
3AN	101	Terrell	N/A	N/A
	102	Lake Johnston	NIL	10.4
	103	Sutton	NIL	8
	132 A	Hillsborough	NIL	12.5
	132 B	Hillsborough	NIL	18
	134	Shamrock	NIL	17
	193 A	Eyebrow	N/A	7
	193 B	Eyebrow	NIL	8
3BS	17	Val Marie	N/A	34.9
	18	Lone Tree	5	81.4
	75	Pinto Creek	1	27
	76	Auvergne	NIL	19
	77	Wise Creek	6	45
	78	Grassy Creek	N/A	37.6
	105	Glenbain	NIL	27
	106	Whiska Creek	1	23
	107	Lac Pelletier	N/A	19
	108	Bone Creek	N/A	24
3BN	138 A	Webb	N/A	36.5
	138 B	Webb	NIL	26
	166	Excelsior	NIL	12
	167	Sask. Landing	NIL	38.0
	168 A	Riverside	NIL	26
	168 B	Riverside	NIL	7
	226	Victory	N/A	N/A
	228	Lacadena	NIL	NIL
	257	Monet	N/A	1

Crop Dist.	R.M. No.	Name	Past Week	Since 1-Apr
4A	49	White Valley	N/A	38
	51	Reno	4	39.9
	79	Arlington	17	52
	109 A	Carmichael	3	27
	109 B	Carmichael	10	56
	110	Piapot	NIL	25
	111	Maple Creek	N/A	16.3
4B	139	Gull Lake	1	27
	142	Enterprise	N/A	23
	231	Happyland	N/A	18
5A	183	Fertile Belt	NIL	43
	211	Churchbridge	N/A	31
	213	Saltcoats	NIL	10
	241	Calder	NIL	NIL
	243	Wallace	NIL	15
	244	Orkney	NIL	8
	245 A	Garry	NIL	27
	245 B	Garry	NIL	10
	245 C	Garry	NIL	16
	246	Ituna Bon Accord	N/A	9
	247	Kellross	NIL	16
	248	Touchwood	NIL	7
5B	271	Cote	N/A	NIL
	273	Sliding Hills	N/A	37
	277	Emerald	NIL	9
	305	Invermay	N/A	15
	307	Elfros	NIL	38
	308 A	Big Quill	NIL	7
	308 B	Big Quill	NIL	25
	331	Livingston	NIL	45
	336	Sasman	NIL	14
	337	Lakeview	NIL	29
	338	Lakeside	N/A	22
	366	Kelvington	NIL	18
	367	Ponass Lake	N/A	23.5
6A	190 A	Dufferin	N/A	15
	190 B	Dufferin	NIL	23
	190 C	Dufferin	NIL	23
	190 D	Dufferin	N/A	NII
	219 A	Longlaketon	N/A	2
	219 B	Longlaketon	NIL	28
	220	McKillop	NIL	5
	221 A	Sarnia	NIL	11.4
	221 B	Sarnia	NIL	10
	222	Craik	NIL	13
	251	Big Arm	NIL	NIL
	252	Arm River	NIL	16
	279	Mount Hope	NIL	3.1
	282	McCraney	NIL	14
	312	Morris	NIL	2
	313	Lost River	N/A	N/A
	339	Leroy	NIL	21.2
	340	Wolverine	NIL	7
	341	Viscount	N/A	12
	343	Blucher	NIL	4
6B	223 A	Huron	NIL	12
	223 B	Huron	NIL	6.5
	284	Rudy	NIL	11
	285 A	Fertile Valley	NIL	0
	285 B	Fertile Valley	NIL	4
	286	Milden	NIL	NIL
	314	Dundurn	NIL	7
	344	Corman Park	NIL	1
	346	Perdue	NIL	4
	376	Eagle Creek	NIL	NIL
	403	Rosthern	NIL	NIL

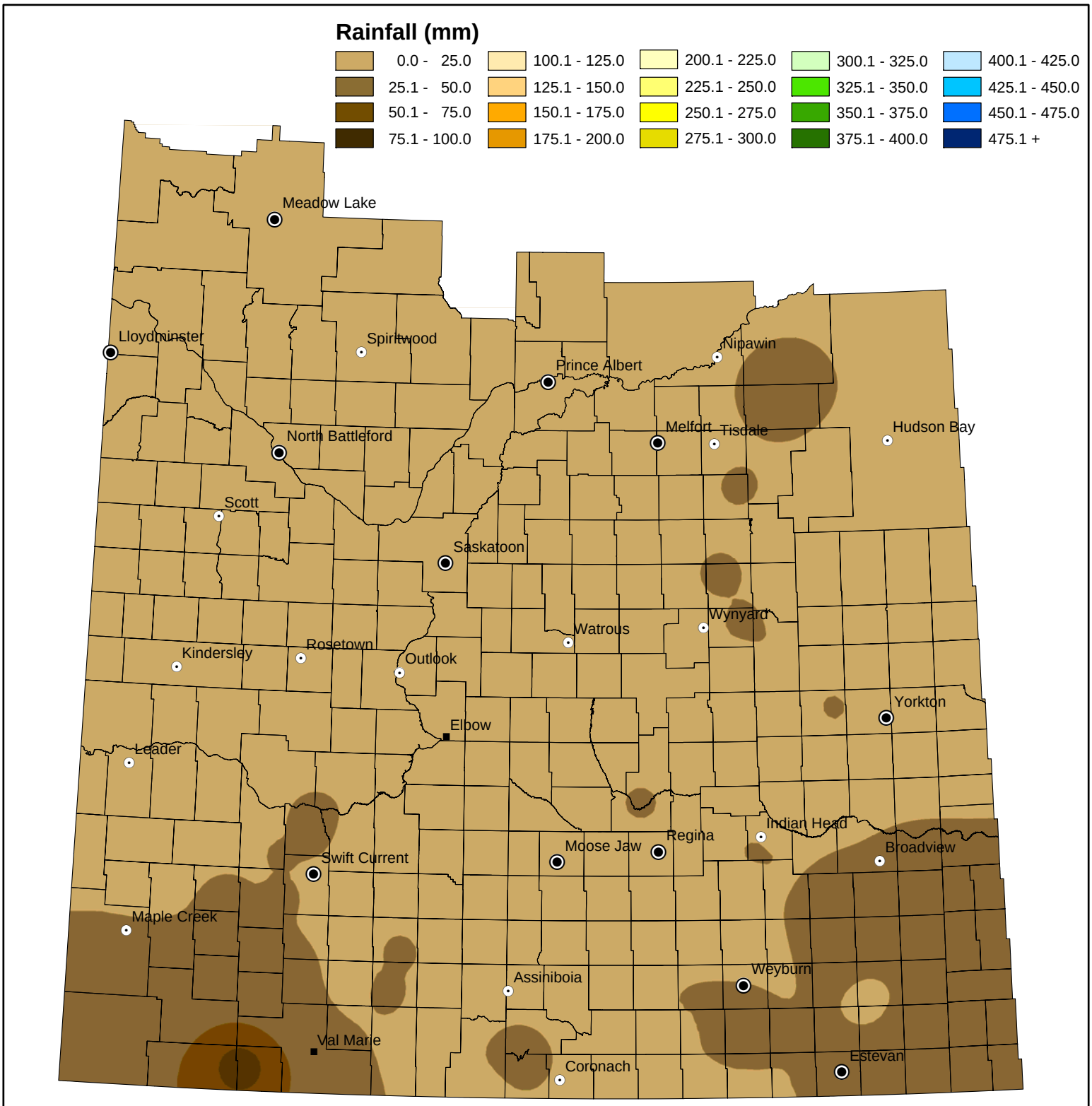
Crop Dist.	R.M. No.	Name	Past Week	Since 1-Apr
7A	287	St. Andrews	NIL	NIL
	288	Pleasant Valley	NIL	NIL
	290 A	Kindersley	N/A	7.7
	290 B	Kindersley	NIL	7.8
	290 C	Kindersley	N/A	9
	292	Milton	N/A	27
	317 A	Marriott	N/A	N/A
	317 B	Marriott	NIL	NIL
	318	Mountain View	NIL	3
	320 A	Oakdale	NIL	10.5
	320 B	Oakdale	N/A	10
	321	Prairiedale	NIL	18
7B	347	Biggar	NIL	4
	350 A	Mariposa	NIL	6.2
	350 B	Mariposa	NIL	5
	351	Progress	N/A	8
	352	Heart's Hill	N/A	20
	377	Glenside	NIL	NIL
	378	Rosemount	NIL	3
	379	Reford	NIL	4
	381	Grass Lake	NIL	3
	382	Eye Hill	5	20.2
	409	Buffalo	N/A	N/A
	410	Round Valley	N/A	NIL
8A	395	Porcupine	NIL	22
	397	Barrier Valley	NIL	26.7
	428	Star City	NIL	32
	456	Arborfield	NIL	33
	457	Connaught	N/A	N/A
	486	Moose Range	N/A	N/A
	487	Nipawin	N/A	44
8B	369	St. Peter	N/A	7
	370 A	Humboldt	NIL	7
	370 B	Humboldt	NIL	10
	371	Bayne	NIL	9
	372	Grant	NIL	7.4
	400	Three Lakes	NIL	17
	402	Fish Creek	NIL	7
	429	Flett's Springs	NIL	8
	459	Kinistino	NIL	10
	460	Birch Hills	NIL	4.3
9AE	488	Torch River	NIL	25
	520	Paddockwood	NIL	14.5
	521	Lakeland	N/A	14.5
9AW	406	Mayfield	N/A	1
	435	Redberry	N/A	4
	436	Douglas	NIL	NIL
	463	Duck Lake	N/A	1
	467 A	Round Hill	N/A	6
	467 B	Round Hill	NIL	NIL
	494	Canwood	N/A	17
9B	438	Battle River	NIL	NIL
	440	Hillsdale	NIL	4
	442	Manitou Lake	0.5	6.4
	498 A	Parkdale	NIL	2
	498 B	Parkdale	NIL	NIL
	499 A	Mervin	NIL	5
	499 B	Mervin	N/A	N/A
	501 A	Frenchman Butte	NIL	7
	501 B	Frenchman Butte	NIL	4
	501 C	Frenchman Butte	N/A	2
	502	Britannia	N/A	NIL
	561	Loon Lake	NIL	10
	588 A	Meadow Lake	NIL	20
	588 B	Meadow Lake	NIL	14
	622	Beaver River	NIL	1.3

These precipitation amounts represent point locations within each municipality and do not necessarily reflect the whole R. M.

Municipality No: A, B, C and D - more than one reporter

Cumulative Rainfall

from April 1 to May 2, 2016



NOTE: Since techniques used to smooth the transition between zones can affect the values in localized areas, this map should be used for regional analysis only.

Government of Saskatchewan

0 25 50 100 150 200
Kilometers
Projection: UTM Zone 13 Datum: NAD83

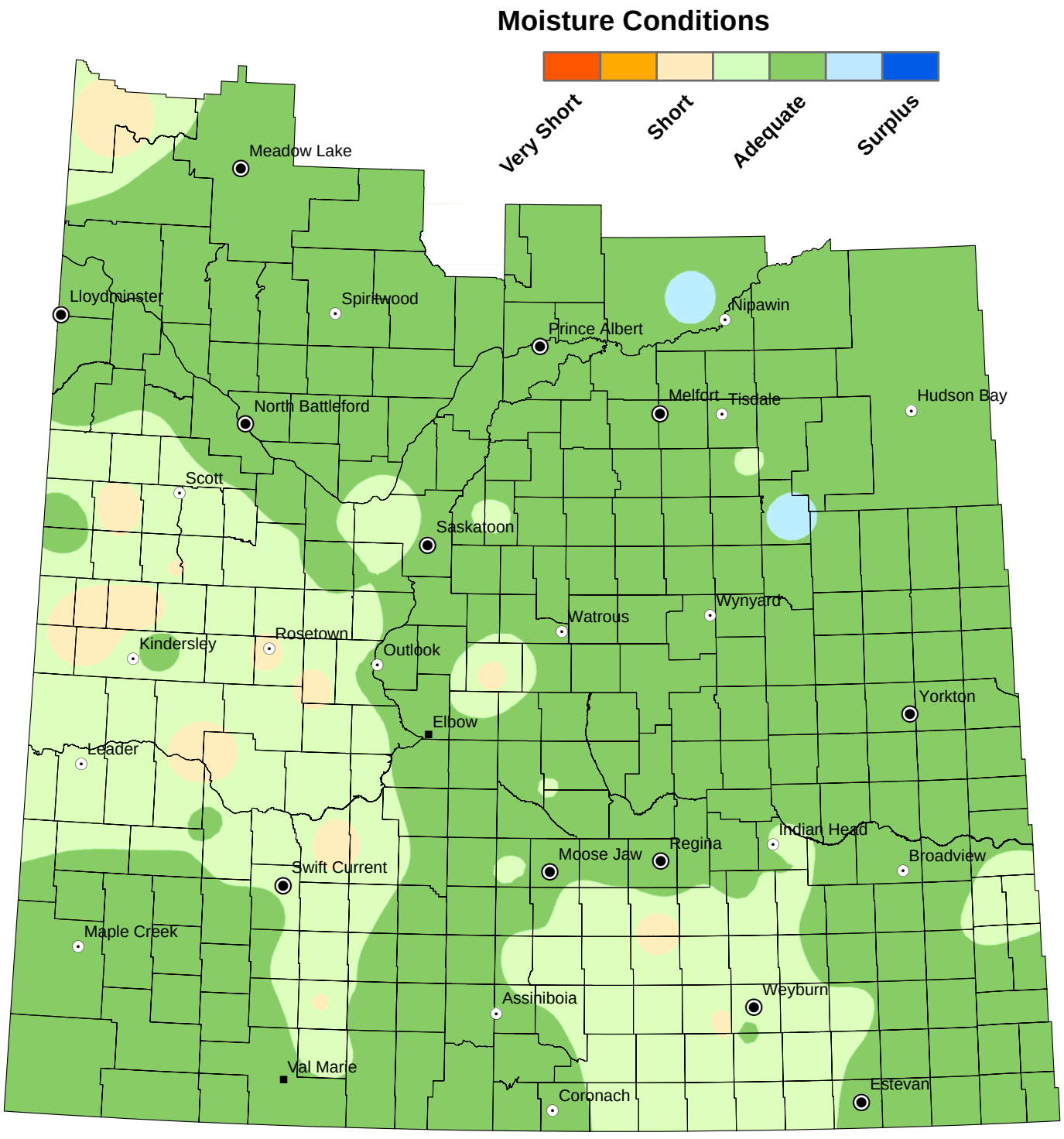
N

Data Source:
Rainfall - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 4, 2016

Cropland Topsoil Moisture Conditions

May 2, 2016



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Government of Saskatchewan

0 25 50 100 150 200

Kilometers

Projection: UTM Zone 13 Datum: NAD83

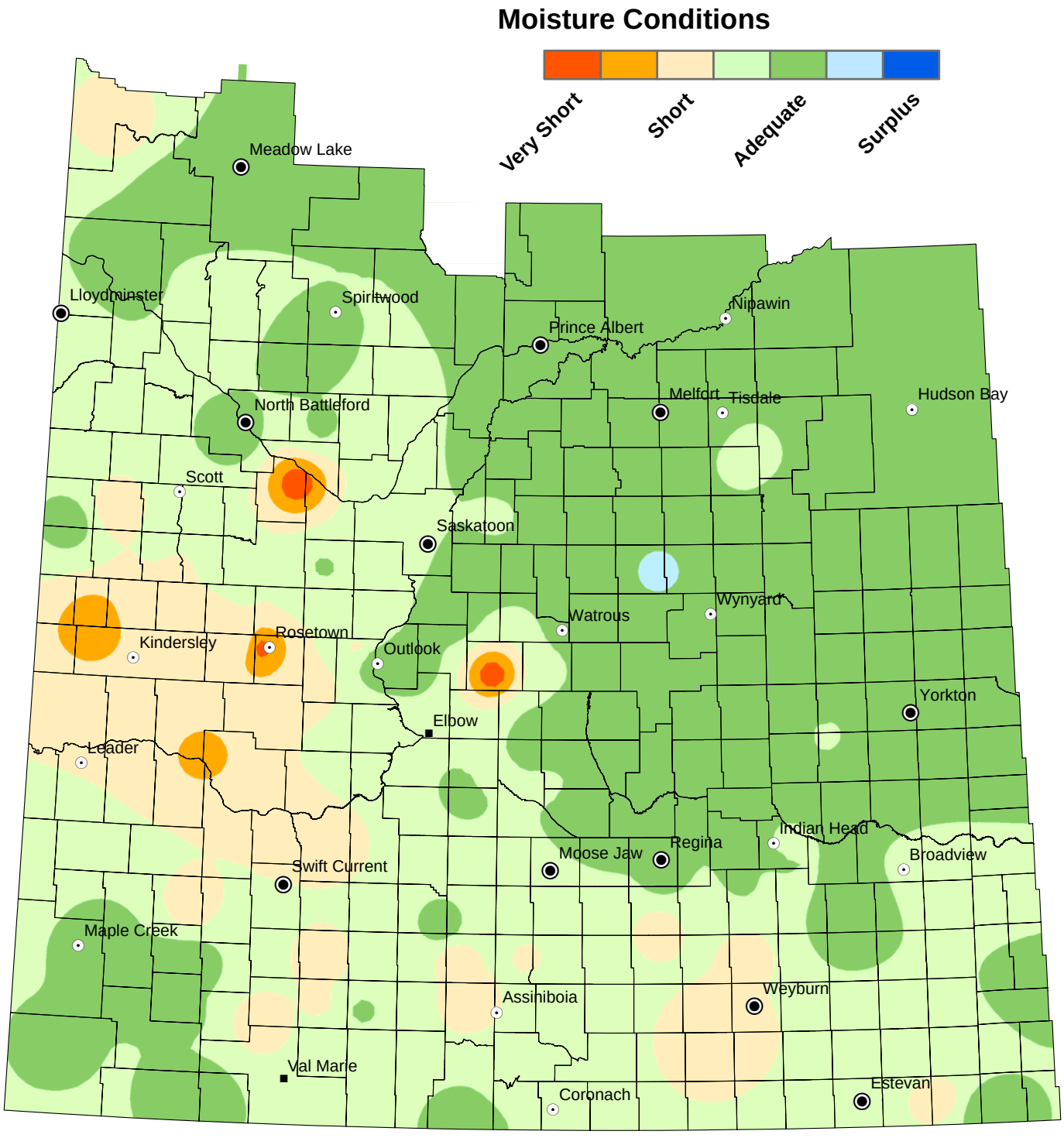
N

Data Source:
Moisture - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 4, 2016

Hay and Pasture Topsoil Moisture Conditions

May 2, 2016



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Government of Saskatchewan

0 25 50 100 150 200

Kilometers

Projection: UTM Zone 13 Datum: NAD83

N

Data Source:
Moisture - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 4, 2016

Government of Saskatchewan

Crop Report

Published by the Ministry of Agriculture
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Report number 03, May 12, 2016

For the Period May 3 to 9, 2016

Seeding progress continues to rapidly advance thanks to warm and dry weather. Saskatchewan producers now have 35 per cent of the crop in the ground. The five-year (2011-2015) seeding average for this time of year is 10 per cent, according to Saskatchewan Agriculture's weekly Crop Report.

Seeding is most advanced in the southwest, where producers have 58 per cent of the crop seeded. Fifty-one per cent of the crop is seeded in the southeast; 26 per cent in the west-central region; 23 per cent in the northeast; 21 per cent in the northwest and 17 per cent in the east-central region.

One year ago
Significant seeding progress was made thanks to dry weather. Thirty-four per cent of the 2015 crop had been seeded. Cool temperatures were delaying crop emergence and growth.

Follow the 2016 Crop Report on Twitter @SKAgriculture

Cropland topsoil moisture is rated as two per cent surplus, 74 per cent adequate, 21 per cent short and three per cent very short. Hay land and pasture topsoil moisture is rated as one per cent surplus, 61 per cent adequate, 32 per cent short and six per cent very short.

Seeding Progress in SK Per cent seeded All Crops	
May 9, 2016	**35**
May 11, 2015	34
May 12, 2014	7
May 6, 2013	1
May 7, 2012	5
May 9, 2011	5
5 year avg. (2011-2015)	**10**
10 year avg. (2006-2015)	**12**

Many areas of the province did not receive rain last week. However, significant rain received earlier this week in much of the province will help alleviate concerns in some areas about dry topsoil moisture conditions.

Producers are busy seeding, controlling weeds and moving cattle.

For further information, contact Shannon Friesen, PAg,
Cropping Management Specialist, Moose Jaw, Regional Services Branch,
Toll Free: 1-866-457-2377 or 306-694-3592, E-mail: cropreport@gov.sk.ca.
Also available on the Ministry of Agriculture website at www.agriculture.gov.sk.ca.

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

SCIC SASKATCHEWAN CROP INSURANCE CORPORATION

Southeastern Saskatchewan (Crop District 1 – Carnduff, Estevan, Redvers, Moosomin and Kipling areas; Crop District 2 – Weyburn, Milestone, Moose Jaw, Regina and Qu'Appelle areas; Crop District 3ASE – Radville and Lake Alma areas)

Thanks to warm and dry weather, seeding is progressing quickly in the region. Fifty-one per cent of the crop is now seeded, significantly up from 18 per cent last week. The five-year (2011-2015) seeding average for this time of year is 12 per cent. Some producers expect to be wrapped up in the next week if the weather co-operates.

Southeastern Saskatchewan	
Crop District	**% seeded (May 9, 2016)**
1A	39
1B	40
2A	77
2B	44
3ASE	78
Region average	**51**

Much of the region did not receive any rain last week and concerns remain that topsoil moisture is quickly depleting. Some areas received rain starting Monday night that will help to replenish topsoil moisture, although additional moisture will be needed for crops to germinate and for pastures to green up. The Glenavon area has received the greatest amount of rainfall for the region since April 1 (44 mm).

Cropland topsoil moisture is rated as one per cent surplus, 67 per cent adequate, 29 per cent short and three per cent very short. Hay land and pasture topsoil moisture is rated as 57 per cent adequate, 40 per cent short and three per cent very short. CD 2A is reporting that five per cent of the cropland and seven per cent of the hay land and pasture is very short topsoil moisture at this time.

There have been reports of field fires in some areas due to dry conditions. With the recent rainfall, some producers may be considering changing their seeding intentions now that moisture conditions have improved. Farmers are busy seeding, rolling pulses, controlling weeds and working fields.

Southwestern Saskatchewan (Crop District 3ASW – Coronach, Assiniboia and Ogema areas; Crop District 3AN – Gravelbourg, Mossbank, Mortlach and Central Butte areas; Crop District 3B – Kyle, Swift Current , Shaunavon and Ponteix areas; Crop District 4 – Consul, Maple Creek and Leader areas)

Fifty-eight per cent of the region's crop is now seeded, significantly up from 35 per cent last week. The five-year (2011-2015) seeding average for this time of year is 22 per cent. Some producers have finished seeding operations, while many others need another week or two of good weather.

Southwestern Saskatchewan	
Crop District	**% Seeded (May 9, 2016)**
3ASW	44
3AN	37
3BS	59
3BN	69
4A	59
4B	64
Region average	**58**

Much of the region did not receive any rain last week and there are concerns that topsoil moisture is depleting in some areas; however, a significant rainfall began on Monday night that brought much-needed moisture to the region. The Gull Lake area reports receiving 50 mm of rain on Monday night. Since April 1, the

Climax area has reported the greatest amount of precipitation (101 mm) for both the region and the province.

Cropland topsoil moisture is rated as 77 per cent adequate, 22 per cent short and one per cent very short. Hay land and pasture topsoil moisture is rated as 54 per cent adequate, 39 per cent short and seven per cent very short. Crop District 3BN is reporting that 37 per cent of the cropland and 62 per cent of the hay land and pasture is short topsoil moisture at this time. CD 3BS is reporting that 23 per cent of the hay land and pasture is very short topsoil moisture.

With the recent rainfall, some producers are considering changing their seeding intentions as moisture conditions have improved.

Farmers are busy seeding, working fields, controlling weeds and rolling pulses.

East-Central Saskatchewan (Crop District 5 – Melville, Yorkton, Cupar, Kamsack, Foam Lake, Preeceville and Kelvington areas; Crop District 6A – Lumsden, Craik, Watrous and Clavet areas)

Seeding is well underway in the region thanks to warm and dry weather. Strong winds have helped to dry up those fields that were unable to support equipment a few weeks ago. Seventeen per cent of the crop is now seeded, up from two per cent last week. The five-year (2011-2015) seeding average for this time of year is four per cent. While some producers have been seeding for a week or more, others will be getting into the field in the coming days if the weather co-operates.

East-central Saskatchewan	
Crop District	**% Seeded (May 9, 2016)**
5A	17
5B	10
6A	23
Region average	**17**

Very little rain was received last week in much of the region, although the Raymore area reported 10 mm. a rain storm earlier this week will help pastures green up and seeded crops germinate and emerge. The Esterhazy area has received the greatest amount of precipitation since April 1 (43 mm).

Topsoil moisture conditions on cropland are rated as four per cent surplus, 82 per cent adequate and 14 per cent short. Hay land and pasture topsoil moisture is rated as two per cent surplus, 80 per cent adequate, 15 per cent short and three per cent very short.

Farmers are busy starting seeding, controlling weeds and working fields.

West-Central Saskatchewan (Crop Districts 6B – Hanley, Outlook, Loreburn, Saskatoon and Arelee areas; Crop District 7A – Rosetown, Kindersley, Eston, Major; Crop District 7B - Kerrobert, Macklin, Wilkie and Biggar areas)

Despite dry soil conditions, seeding is well underway in the region. Twenty-six per cent of the crop has now been seeded, significantly up from six per cent last week. The five-year (2011-2015) seeding average for this time of year is eight per cent. Many producers have been in the field for a week or more, while others are just nicely getting started.

West-central Saskatchewan	
Crop District	**% Seeded (May 9, 2016)**
6B	20
7A	29
7B	29
Region average	**26**

The region did not receive any rainfall for the majority of last week; however, many areas received much-needed rain earlier this week that will help replenish topsoil moisture conditions and allow crops to germinate and emerge. The Perdue area reported 26 mm of rain this past week. The Perdue area has also recorded the greatest amount of rainfall for the region since April 1 (30 mm).

Topsoil moisture conditions on cropland are rated as one per cent surplus, 58 per cent adequate, 32 per cent short and nine per cent very short. Hay land and pasture topsoil moisture is rated as one per cent surplus, 46 per cent adequate, 37 per cent short and 16 per cent very short. At this time, Crop District 7B is reporting that 13 per cent of the cropland and 36 per cent of the hay land and pasture is very short topsoil moisture. Additional moisture will be needed in the coming weeks to help improve field and pasture conditions.

With the recent rainfall, some producers are considering changing their seeding intentions as moisture conditions have somewhat improved. There are reports of grass fires in parts of the region and some producers are hauling water trailers from field to field as a precaution.

Farmers are busy seeding, working fields, controlling weeds and rolling pulses.

Northeastern Saskatchewan (Crop District 8 – Hudson Bay, Tisdale, Melfort, Carrot River, Humboldt, Kinistino, Cudworth and Aberdeen areas; Crop District 9AE – Prince Albert, Choiceland and Paddockwood areas)

Producers have made significant seeding progress and 23 per cent of the crop is now in the ground, up from just one per cent last week. The five-year (2011-2015) seeding average for this time of year is three per cent. While most fields still have adequate moisture, rainfall will be needed in the near future to help crops germinate and emerge.

Northeastern Saskatchewan	
Crop District	**% Seeded (May 9, 2016)**
8A	21
8B	20
9AE	38
Region average	**23**

Very little rainfall was received last week. The Prince Albert, Nipawin and Arborfield areas all report receiving 10 mm. Since April 1, the Nipawin area has reported the greatest amount of precipitation in the region (54 mm).

Cropland topsoil moisture conditions are rated as two per cent surplus, 86 per cent adequate, 11 per cent short and one per cent very short. Hay land and pasture topsoil moisture is rated as 82 per cent adequate, 17 per cent short and one per cent very short.

Warm, dry and windy weather in the region has helped dry up fields that were unable to support equipment a few weeks ago. Many roads and fields remain soft, however. Weed growth is heavy in some areas, and strong winds are delaying pre-seeding burn-off herbicide applications.

Farmers are busy seeding, controlling weeds and working fields.

Northwestern Saskatchewan (Crop District 9AW – Shellbrook, North Battleford, Big River and Hafford areas; Crop District 9B – Meadow Lake, Turtleford, Pierceland, Maidstone and Lloydminster areas)

Seeding is now general in much of the region and 21 per cent of the crop is in the ground, up from three per cent last week. The five-year (2011-2015) seeding average for this time of year is eight per cent. Warm temperatures and strong winds have dried up many fields and rainfall will be needed soon for crops to emerge and pastures to green up.

Northwestern Saskatchewan	
Crop District	**% Seeded (May 9, 2016)**
9AW	14
9B	27
Region average	**21**

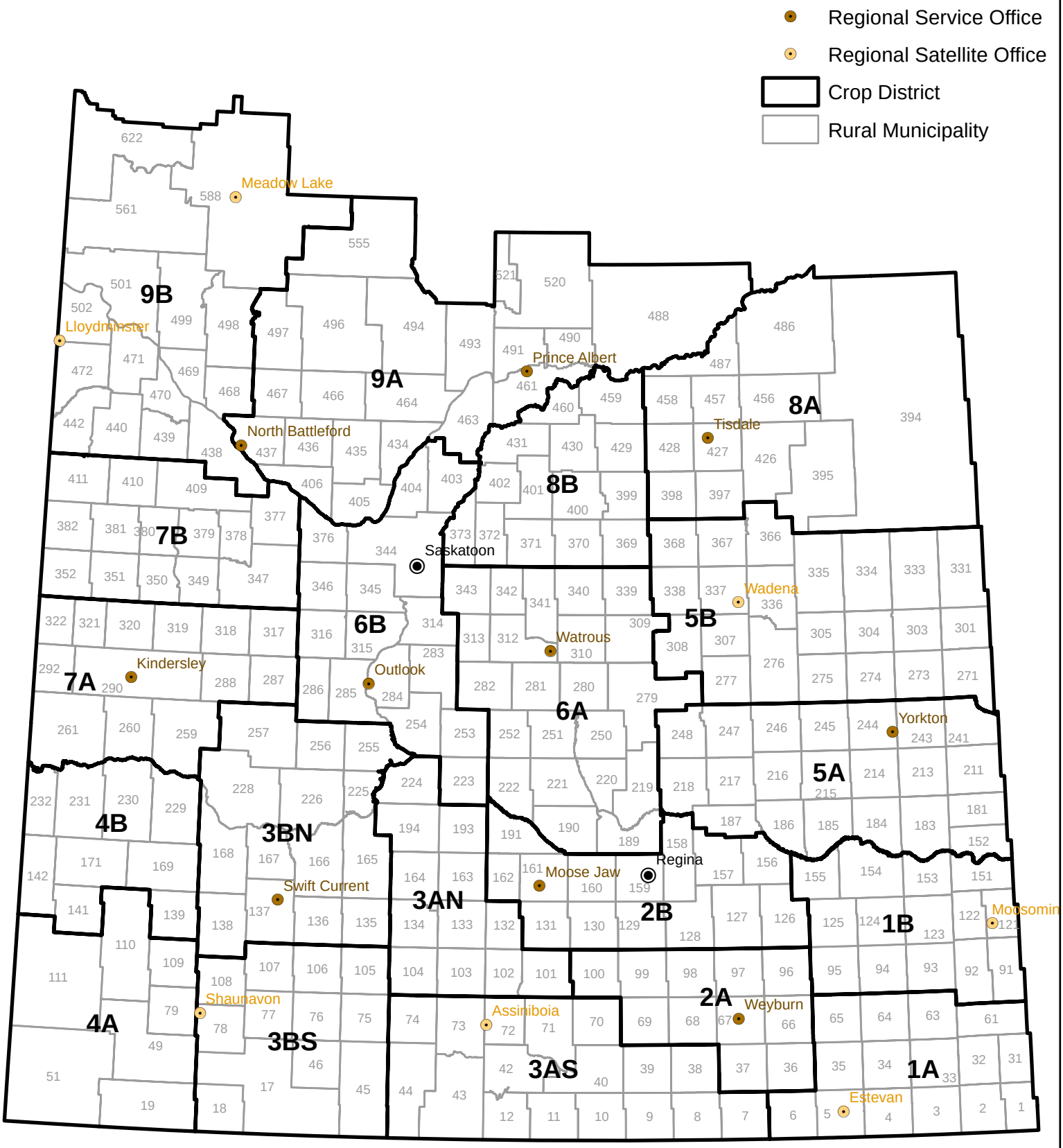
Little to no rain was received this past week, although the Hafford area reported 4 mm. Since April 1, the Meadow Lake area has received 20 mm of precipitation, the greatest amount for the region.

Topsoil moisture conditions on cropland are rated as four per cent surplus, 73 per cent adequate, 16 per cent short and seven per cent very short. Hay land and pasture topsoil moisture is rated as three per cent surplus, 60 per cent adequate, 30 per cent short and seven per cent very short. At this time, Crop District 9AW is reporting that 15 per cent of the cropland and 17 per cent of the hay land and pasture are very short topsoil moisture.

Some producers are considering changing their seeding intentions if rain does not arrive soon, while others are waiting for weather to improve before seeding crops such as canola.

Farmers are busy seeding, controlling weeds, working fields and moving cattle.

Crop Districts and Rural Municipalities in Saskatchewan



Government of Saskatchewan

0 25 50 100 150 200
Kilometers

Projection: UTM Zone 13 Datum: NAD83

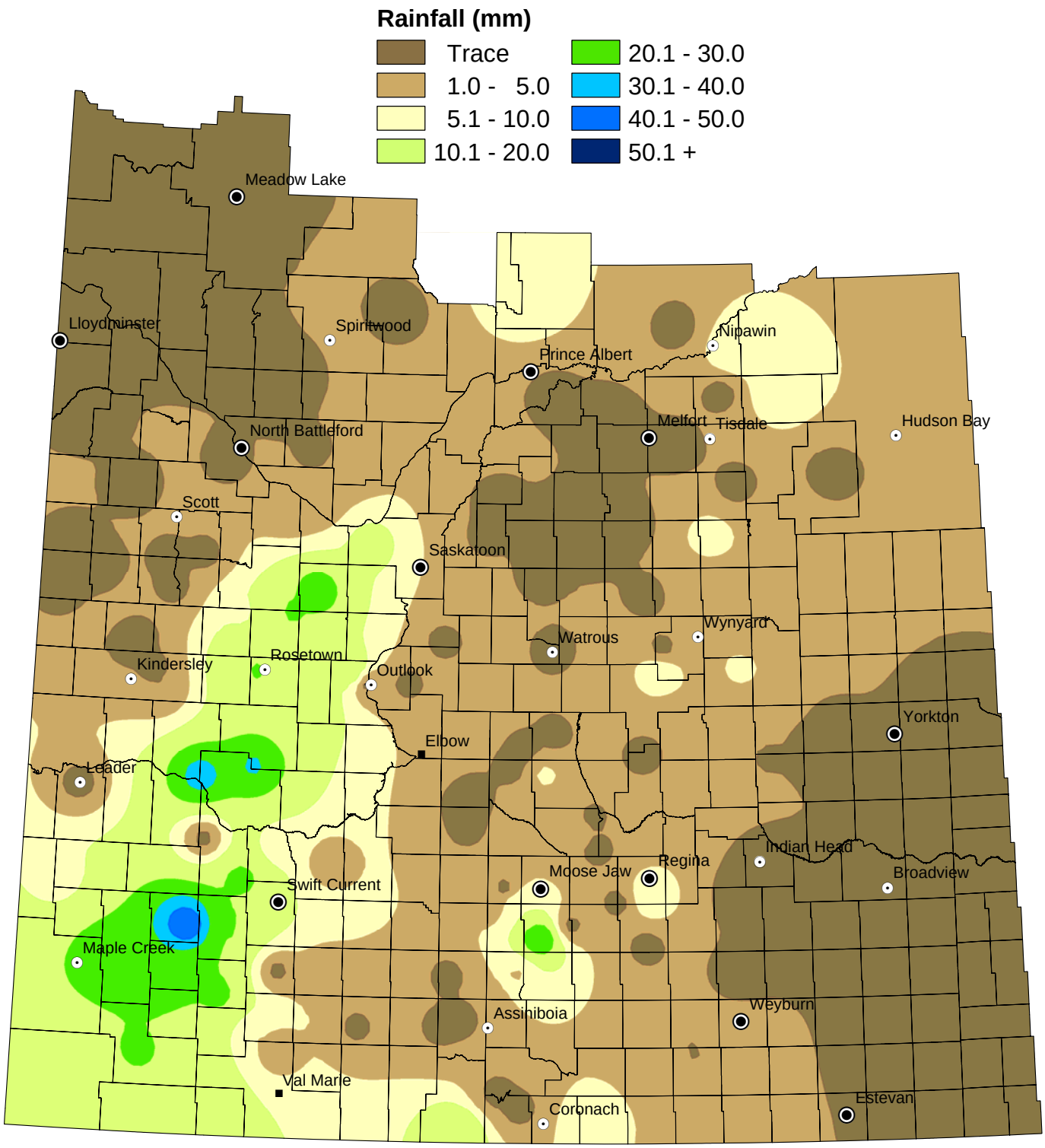
N

Data Source:
Crop Districts - Saskatchewan Ministry of Agriculture

Geomatic Services, Ministry of Agriculture June 10, 2014

Weekly Rainfall

from May 3 to May 9, 2016



NOTE: Since techniques used to smooth the transition between zones can affect the values in localized areas, this map should be used for regional analysis only.

Government of Saskatchewan

0 25 50 100 150 200

Kilometers

Projection: UTM Zone 13 Datum: NAD83

N

Data Source:
Rainfall - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 11, 2016

Weekly Rainfall Summary

(in millimeters) 1 inch = 25 mm for the period May 3 to 9, 2016

Crop Dist.	R.M. No.	Name	Past Week	Since 1-Apr
1A	2	Mount Pleasant	NIL	39
	3	Enniskillen	NIL	26
	33	Moose Creek	NIL	32
	34	Browning	N/A	27
	61	Antler	N/A	N/A
	64	Brock	NIL	23
	65	Tecumseh	N/A	45
1B	91	Maryfield	NIL	42
	122	Martin	NIL	41
	123	Silverwood	NIL	37
	124 A	Kingsley	NIL	39
	124 B	Kingsley	N/A	N/A
	125 A	Chester	N/A	29
	125 B	Chester	NIL	44
	151	Rocanville	NIL	29
	154	Elcapo	NIL	33
	155	Wolseley	NIL	25
2A	67	Weyburn	2	32
	68	Brokenshell	2	28
	97	Wellington	NIL	10
2B	127 A	Francis	NIL	19
	127 B	Francis	NIL	7.5
	129	Bratt's Lake	NIL	7
	131 A	Baildon	NIL	6
	131 B	Baildon	30	40
	156 A	Indian Head	NIL	13.9
	156 B	Indian Head	NIL	33
	159	Sherwood	10	10
	160	Pense	NIL	5
	161	Moose Jaw	NIL	9
	162	Caron	NIL	16
	191	Marquis	62	62
3ASE	38 A	Laurier	NIL	32.8
	38 B	Laurier	4	23
	39	The Gap	8	38
3ASW	10	Happy Valley	8	51
	12	Poplar Valley	NIL	38
	40	Bengough	N/A	NIL
	42	Willow Bunch	NIL	30
	43	Old Post	20	43
	73 A	Stonehenge	NIL	19
	73 B	Stonehenge	NIL	22
3AN	101	Terrell	N/A	NIL
	102	Lake Johnston	4.8	15.2
	103	Sutton	NIL	8
	132 A	Hillsborough	3	15.5
	132 B	Hillsborough	10	28
	134	Shamrock	N/A	17
	193 A	Eyebrow	NIL	7
	193 B	Eyebrow	N/A	8
3BS	17	Val Marie	2	38.9
	18	Lone Tree	20	101.4
	75	Pinto Creek	NIL	27
	76	Auvergne	5	24
	77	Wise Creek	5	50
	78	Grassy Creek	14	68.1
	105	Glenbain	3	30
	106	Whiska Creek	1	24
	107	Lac Pelletier	NIL	19
	108	Bone Creek	22	53
3BN	138 A	Webb	29	65.5
	138 B	Webb	6	32
	166	Excelsior	2	14
	167	Sask. Landing	7	45.0
	168 A	Riverside	22	48
	168 B	Riverside	NIL	7
	226	Victory	N/A	NIL
	228	Lacadena	34	34
	257	Monet	31	32

Crop Dist.	R.M. No.	Name	Past Week	Since 1-Apr
4A	49	White Valley	21	64
	51	Reno	13.8	55.2
	79	Arlington	17	69
	109 A	Carmichael	22	49
	109 B	Carmichael	27	95
	110	Piapot	26	51
	111	Maple Creek	25	41.3
4B	139	Gull Lake	50	77
	142	Enterprise	8	31
	231	Happyland	NIL	19
5A	183	Fertile Belt	NIL	43
	211	Churchbridge	NIL	31
	213	Saltcoats	NIL	10
	241	Calder	N/A	NIL
	243	Wallace	NIL	15
	244	Orkney	NIL	8
	245 A	Garry	NIL	27
	245 B	Garry	NIL	10
	245 C	Garry	1	17
	246	Ituna Bon Accord	NIL	9
	247	Kellross	5	21
	248	Touchwood	1	8
5B	271	Cote	N/A	NIL
	273	Sliding Hills	NIL	37
	277	Emerald	6	15
	305	Invermay	5	20
	307	Elfros	3	41
	308 A	Big Quill	NIL	7
	308 B	Big Quill	10	35
	331	Livingston	NIL	45
	336	Sasman	3	17
	337	Lakeview	2	31
	338	Lakeside	2	24
	366	Kelvington	5	23
	367	Ponass Lake	8	31.5
6A	190 A	Dufferin	NIL	15
	190 B	Dufferin	5	28
	190 C	Dufferin	N/A	23
	190 D	Dufferin	NIL	NIL
	219 A	Longlaketon	NIL	2
	219 B	Longlaketon	1	29
	220	McKillop	NIL	5
	221 A	Sarnia	6	17.4
	221 B	Sarnia	2	12
	222	Craik	NIL	13
	251	Big Arm	NIL	NIL
	252	Arm River	NIL	16
	279	Mount Hope	3.5	6.6
	282	McCraney	1	15
	312	Morris	NIL	2
	313	Lost River	N/A	N/A
	339	Leroy	NIL	21.2
	340	Wolverine	1	8
	341	Viscount	NIL	12
	343	Blucher	3	7
6B	223 A	Huron	NIL	12
	223 B	Huron	NIL	6.5
	284	Rudy	NIL	11
	285 A	Fertile Valley	16.5	16.5
	285 B	Fertile Valley	NIL	4
	286	Milden	17	17
	314	Dundurn	NIL	7
	344	Corman Park	13	14
	346	Perdue	26	30
	376	Eagle Creek	8	8
	403	Rosthern	5	5

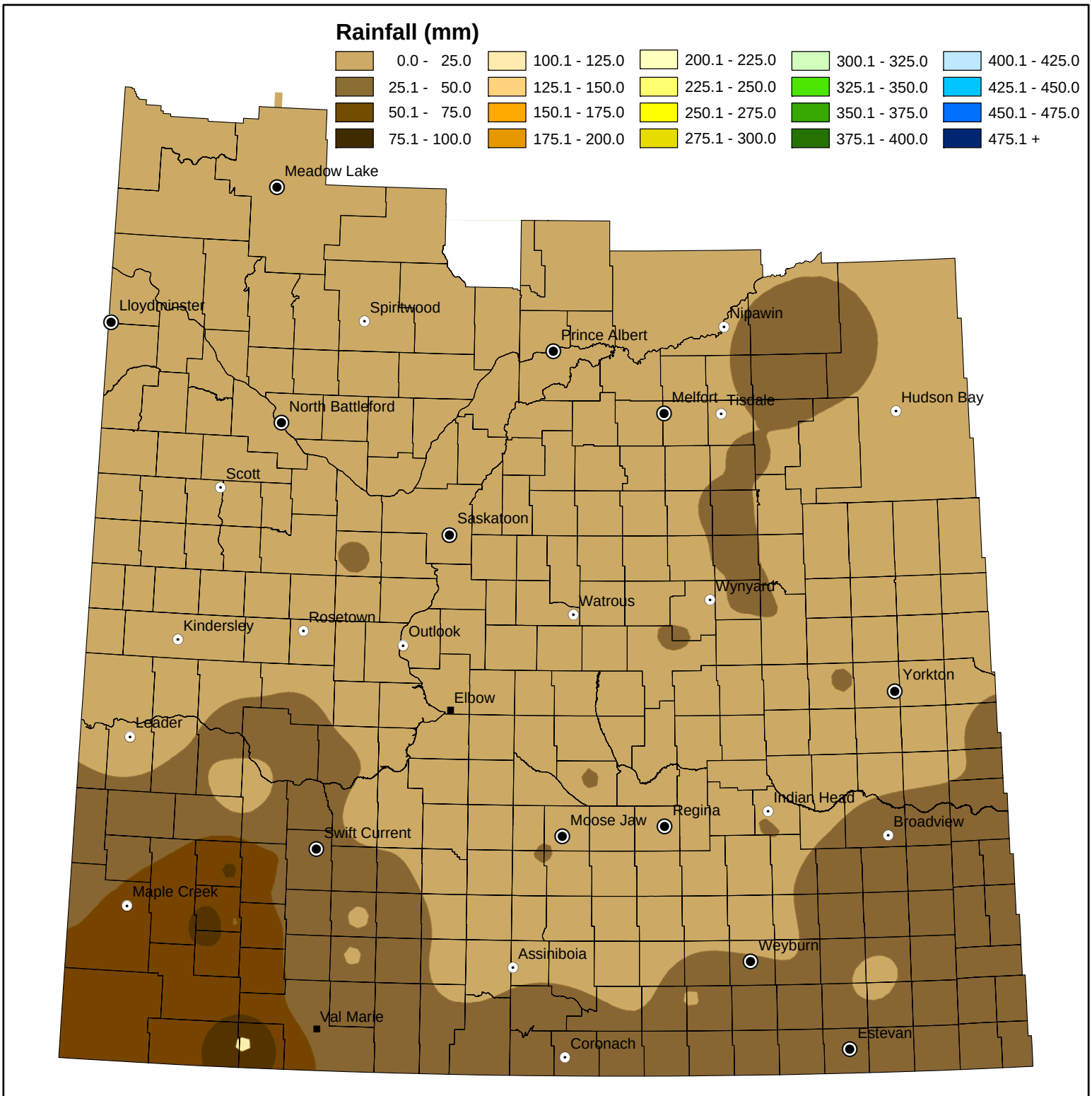
Crop Dist.	R.M. No.	Name	Past Week	Since 1-Apr
7A	287	St. Andrews	21	21
	288	Pleasant Valley	15	15
	290 A	Kindersley	1	8.7
	290 B	Kindersley	NIL	7.8
	290 C	Kindersley	N/A	9
	292	Milton	N/A	27
	317 A	Marriott	16	16
	317 B	Marriott	21	21
	318	Mountain View	9	12
	320 A	Oakdale	NIL	10.5
	320 B	Oakdale	NIL	10
	321	Prairiedale	1	19
7B	347	Biggar	NIL	4
	350 A	Mariposa	NIL	6.2
	350 B	Mariposa	NIL	5
	351	Progress	NIL	8
	352	Heart's Hill	NIL	20
	377	Glenside	1	1
	378	Rosemount	NIL	3
	379	Reford	NIL	4
	381	Grass Lake	N/A	3
	382	Eye Hill	NIL	20.2
	409	Buffalo	N/A	N/A
	410	Round Valley	NIL	NIL
8A	395	Porcupine	NIL	22
	397	Barrier Valley	NIL	26.7
	428	Star City	NIL	32
	456	Arborfield	10	43
	457	Connaught	NIL	30
	486	Moose Range	N/A	N/A
	487	Nipawin	10	54
8B	369	St. Peter	NIL	7
	370 A	Humboldt	NIL	7
	370 B	Humboldt	NIL	10
	371	Bayne	NIL	9
	372	Grant	0.3	7.7
	400	Three Lakes	NIL	17
	402	Fish Creek	NIL	7
	429	Flett's Springs	NIL	8
	459	Kinistino	NIL	10
	460	Birch Hills	NIL	4.3
9AE	488	Torch River	NIL	25
	520	Paddockwood	10	24.5
	521	Lakeland	10	24.5
9AW	406	Mayfield	1	2
	435	Redberry	4	8
	436	Douglas	NIL	NIL
	463	Duck Lake	2	3
	467 A	Round Hill	NIL	6
	467 B	Round Hill	NIL	NIL
	494	Canwood	NIL	17
9B	438	Battle River	NIL	NIL
	440	Hillsdale	N/A	4
	442	Manitou Lake	NIL	6.4
	498 A	Parkdale	NIL	2
	498 B	Parkdale	NIL	NIL
	499 A	Mervin	NIL	5
	499 B	Mervin	N/A	N/A
	501 A	Frenchman Butte	NIL	7
	501 B	Frenchman Butte	NIL	4
	501 C	Frenchman Butte	N/A	2
	502	Britannia	NIL	NIL
	561	Loon Lake	NIL	10
	588 A	Meadow Lake	NIL	20
	588 B	Meadow Lake	NIL	14
	622	Beaver River	N/A	1.3

These precipitation amounts represent point locations within each municipality and do not necessarily reflect the whole R. M.

Municipality No: A, B, C and D - more than one reporter

Cumulative Rainfall

from April 1 to May 9, 2016



NOTE: Since techniques used to smooth the transition between zones can affect the values in localized areas, this map should be used for regional analysis only.

Government of Saskatchewan

0 25 50 100 150 200

Kilometers

Projection: UTM Zone 13 Datum: NAD83

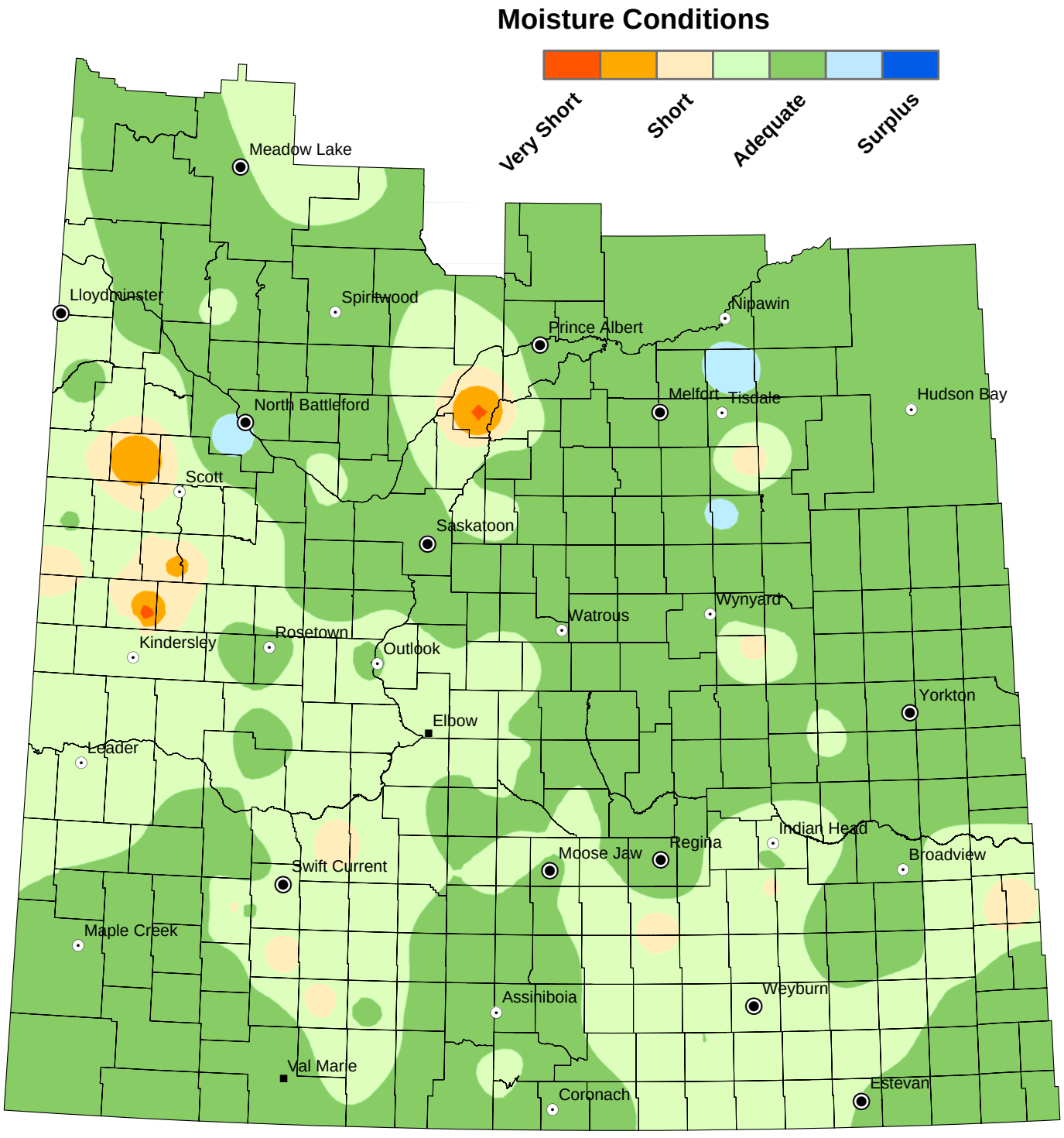
N

Data Source:
Rainfall - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 11, 2016

Cropland Topsoil Moisture Conditions

May 9, 2016



NOTE: Since techniques used to smooth the transition between zones can affect the values in localized areas, this map should be used for regional analysis only.

Government of Saskatchewan

0 25 50 100 150 200

Kilometers

Projection: UTM Zone 13 Datum: NAD83

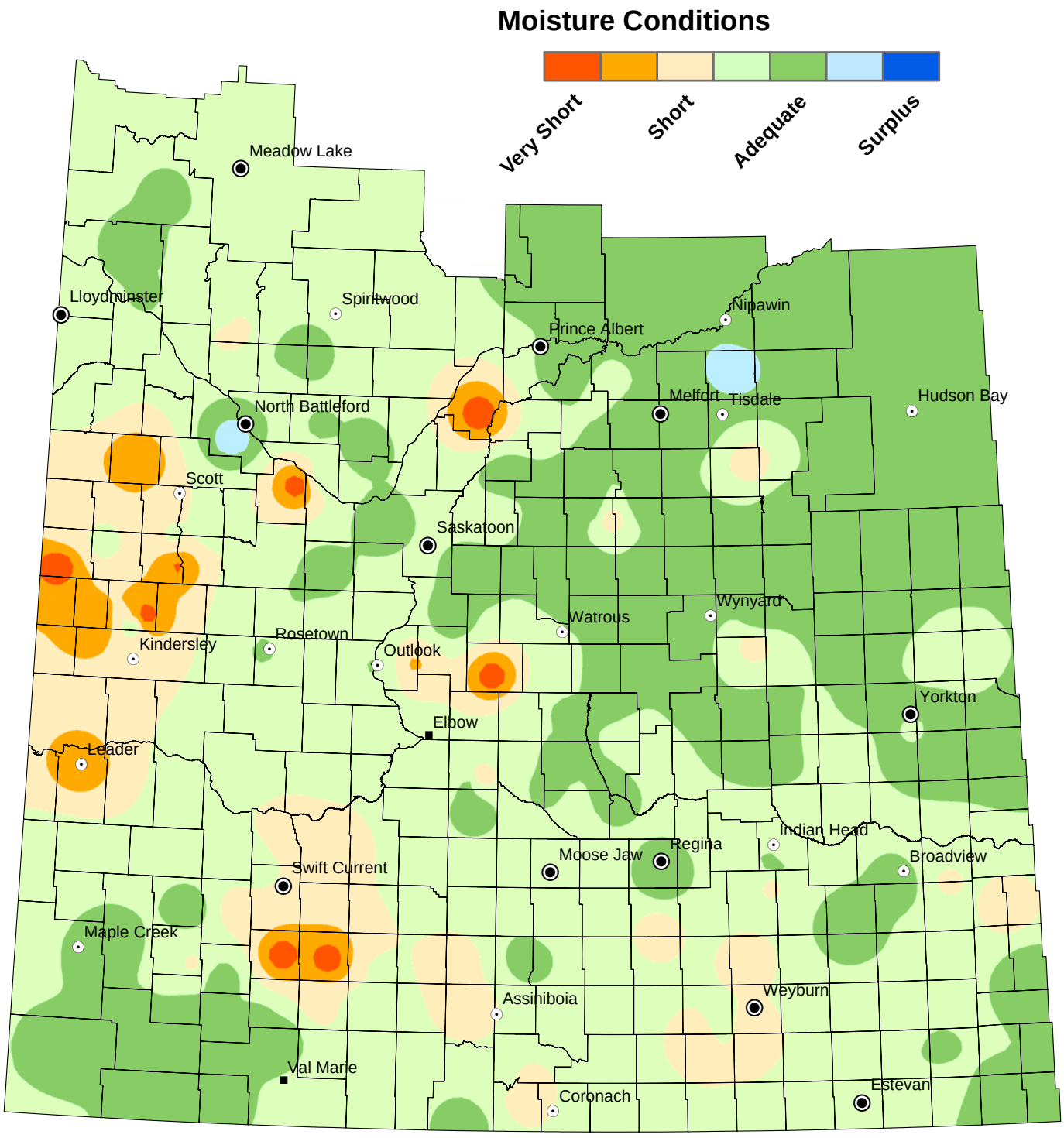
N

Data Source:
Moisture - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 11, 2016

Hay and Pasture Topsoil Moisture Conditions

May 9, 2016



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Government of Saskatchewan

0 25 50 100 150 200

Kilometers

Projection: UTM Zone 13 Datum: NAD83

N

Data Source:
Moisture - Ministry of Agriculture, Crop Report Database
IDW interpolation (power 2.5, fixed radius 300 km)

Geomatics Services, Ministry of Agriculture May 11, 2016

APPENDIX D

RM OF MCKILLOP LAND USE MAP

RURAL MUNICIPALITY OF McKillop No. 220

LAND USE CONCEPT MAP

2011

THIS IS THE LAND USE CONCEPT MAP REFERRED TO IN BYLAW NUMBER _____ ADOPTED BY THE RURAL MUNICIPALITY OF McKILLOP No. 220

_____
REEVE

_____
ADMINISTRATOR

APPROVED ON THE _____ DAY OF _____, 2011

_____
MINISTER OF MUNICIPAL AFFAIRS

Rge 24 | Rge 23 | Rge 22 | Rge 21

Twp 24

Twp 23

Twp 22

Twp 21

LAST MOUNTAIN LAKE

STRASBOURG

COLLINGWOOD LAKESHORE ESTATES SEE INSERT 1

MAPLE GROVE SEE INSERT 2

UHLS BAY SEE INSERT 3

RESORT VILLAGE OF ISLAND VIEW

SUNSET RESORT SEE INSERT 4

NORTH COLESDALE PARK SEE INSERT 5A

COLESDALE PARK SEE INSERT 5B

GREEN ACRES SEE INSERT 6

SPRING BAY SEE INSERT 7

GIBB'S BEACH SEE INSERT 8

MACPHEAT PARK SEE INSERT 9

RESORT VILLAGE OF GLEN HARBOUR

MOHR'S BEACH SEE INSERT 10

SHORELINE SEE INSERT 11

CLEARVIEW RESORT SEE INSERT 12

SORENSEN BEACH SEE INSERT 13

HERITAGE VALLEY SEE INSERT 14

RESORT VILLAGE OF SUNSET COVE

RESORT VILLAGE OF SASKATCHEWAN BEACH

RESORT VILLAGE OF PELICAN POINTE

SUN DALE BEACH SEE INSERT 15

ALTA VISTA SEE INSERT 16

SHORE ACRES SEE INSERT 17

2 1 0 1 2 3 4.5 6 8
KILOMETRES

LEGEND

- Urban Area
- Provincial Park
- Enviromentally Sensitive Area
- Potential Country Residential
- HIGHWAYS
- Primary Grid Road (paved)
- Primary Grid Road (gravel)
- Rural Municipality

NOTE:

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JOHN WOLFENBERG
Professional Community
Planning Services Ltd.

PCPS

11/08/2011 12:27:26 PM, Terra Sky Consulting, - BLJ

APPENDIX E

COMMUTE DATA

Catalogue no. 99-012-2011003

NHS in Brief

Commuting to work

National Household Survey (NHS), 2011

Statistics Canada Statistique Canada

Canada

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Standard symbols

The following symbols are used in Statistics Canada publications:

.	not available for any reference period
..	not available for a specific reference period
...	not applicable
0	true zero or a value rounded to zero
0^{s}	value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p}	preliminary
^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E}	use with caution
F	too unreliable to be published
*	significantly different from reference category ($p < 0.05$)

Commuting to work

Box 1: National Household Survey

This is the second release of data from the National Household Survey (NHS). Roughly 4.5 million households across Canada were selected for the NHS, representing about one-third of all households.

This *NHS in Brief* article, together with the article Language use in the workplace in Canada, Catalogue no. 99-012-X2011003, complements the analytical document *Portrait of Canada's Labour Force*, Catalogue no. 99-012-X2011002.

Further information on the National Household Survey can be found in the *National Household Survey User Guide*, Catalogue no. 99-001-X. Specific information on the quality and comparability of NHS data on journey to work can be found in the *Journey to Work Reference Guide, National Household Survey*, Catalogue no. 99-012-X2011008.

According to the 2011 National Household Survey (NHS), roughly 15.4 million Canadians commuted to work, while 1.1 million worked at home most of the time.[1]

Of those who commuted, 13.5 million went to a usual place of work and another 1.9 million travelled to a location that varied from day to day.

Car, truck or van was by far the most commonly used mode of transportation. Overall, about four out of five Canadian commuters used private vehicles.

Specifically, 74.0% of commuters, or 11.4 million workers drove a vehicle to work. Another 5.6%, or 867,100 people made the trip as passengers.

The percentage of commuters who used public transit for the longest part of their trip was 12.0% in Canada in 2011. By comparison, 11.0% of commuters reported taking public transit in the 2006 Census of Population.

In the 2011 NHS, detailed information about the type of public transit used was collected for the first time. Of public transit users, 63.5% commuted by bus, 25.0% by subway or elevated rail, 11.2% by light rail, streetcar or commuter train, and 0.3% by ferry.

Finally, in 2011, 880,800 commuters walked to work (5.7%), and 201,800 cycled (1.3%). In the 2006 Census, 6.4% of commuters walked and 1.3% cycled.

Mode of transportation in metropolitan Canada

In 2011, there were 33 census metropolitan areas (CMAs) in Canada (see Box 2 for the definitions of the geographical units mentioned in this report). In general, the availability of public transit increases with the size of the CMA. Thus, commuters living in the Toronto and Montréal CMAs, the two most populous metropolitan areas in Canada, were the most likely to take public transit to work (23.3% in Toronto and 22.2% in Montréal). Public transit use was also comparatively widespread in Ottawa - Gatineau (20.1%) and Vancouver (19.7%) (see Table 1.a and Table 1.b for the corresponding proportions in the 2006 Census).

1. Just over 66,000 people worked outside Canada.

The types of public transit used varied substantially from one CMA to another. For example, in Ottawa - Gatineau, almost all commuters who used public transit took the bus (99.0% of them).[2] By comparison, 51.0% of public transit users in Montréal and 45.4% in Toronto were bus riders (Figure 1).

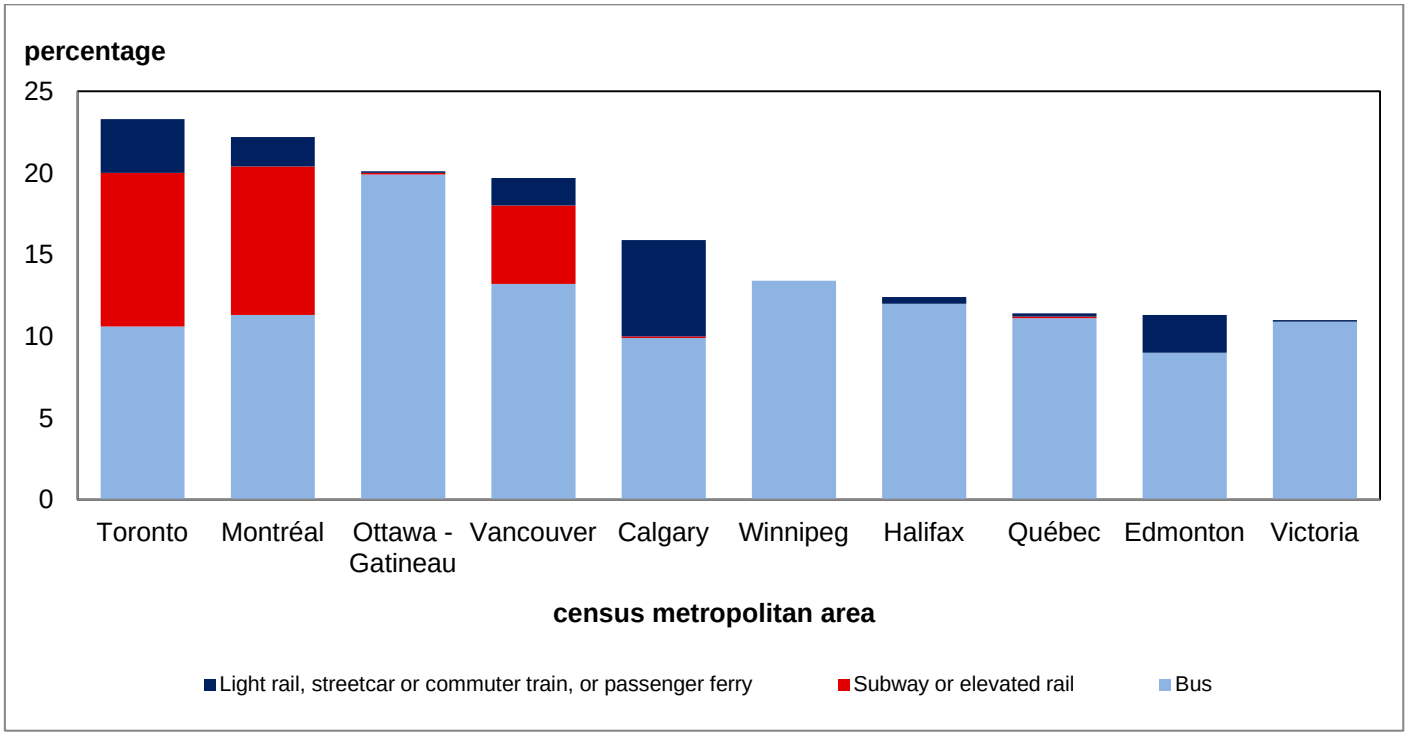
Box 2: Census metropolitan area

A census metropolitan area (CMA) is formed by one or more adjacent municipalities centred on a population centre (known as the core). A CMA must have a total population of at least 100,000, of which 50,000 or more must live in the core.

Census tracts (CTs) are small, relatively stable geographical areas that usually have a population between 2,500 and 8,000 persons. They are located in census metropolitan areas (CMAs) and in census agglomerations (CAs) with a core population of 50,000 or more.

The central municipality (census subdivision) of a CMA or CA is the one that tends to lend its name to the CMA or the CA. For example, in the Montréal census metropolitan area, the central municipality is the City of Montréal. All other municipalities within the boundaries of the CMA or CA are considered peripheral to the central municipality.

Figure 1 Proportion of workers taking public transit to work, by census metropolitan area and type of public transit, 2011



Source: Statistics Canada, National Household Survey, 2011.

2. Some people work in a different CMA from the CMA in which their usual place of residence is located. This helps explain the fact that a small percentage of people report commuting by subway or elevated rail even though those services are not available in their CMA of residence (Ottawa - Gatineau or Québec, for example).

In general, the CMAs that have the highest proportions of public transit users also have the lowest proportions of commuters using private vehicles. However, the proportion of commuters who travel by car, truck or van varies with the location of their residence within these CMAs. For example, in a number of census tracts in Canada's six largest CMAs, the proportion of commuters using private vehicles exceeded 90% (see the maps showing the percentage of the employed labour force using a car, truck or van to get to work).

Active transportation, that is, walking or bicycling, is an option for many commuters who live close to their place of work. In 2011, active transportation was most common in the Victoria CMA, where it was used by approximately one commuter in six (10.0% walked and 5.9% bicycled).

The other CMAs with relatively higher proportions of walkers were Kingston (8.5%) and Halifax (8.5%). Proportionally, the number of cyclists was above average in the Kelowna CMA (2.6%) and the Ottawa - Gatineau CMA (2.2%) (Table 1.a).

Table 1.a Proportion of workers commuting to work by car, truck or van, by public transit, on foot, or by bicycle, census metropolitan areas, 2011

Census metropolitan area	Car, truck or van (total)	Car, truck or van (driver)	Car, truck or van (passenger)	Public transit	Walking	Bicycle
	percentage					
St. John's (Newfoundland and Labrador)	89.1	79.7	9.4	3.0	5.4	0.2
Halifax (Nova Scotia)	76.6	68.7	7.9	12.5	8.5	1.1
Moncton (New Brunswick)	88.8	78.8	10.1	3.3	6.1	0.6
Saint John (New Brunswick)	89.0	79.6	9.4	4.7	5.1	0.2
Saguenay (Quebec)	91.6	88.0	3.6	2.3	4.3	0.4
Québec (Quebec)	80.5	76.4	4.1	11.3	6.2	1.3
Sherbrooke (Quebec)	87.5	83.5	4.0	4.2	6.6	0.8
Trois-Rivières (Quebec)	90.8	87.5	3.4	2.3	5.1	1.0
Montréal (Quebec)	69.8	66.4	3.4	22.2	5.3	1.7
Ottawa - Gatineau (Ontario/Quebec)	70.4	63.8	6.7	20.1	6.3	2.2
Ottawa - Gatineau (Quebec side)	78.1	71.0	7.1	15.3	4.1	1.7
Ottawa - Gatineau (Ontario side)	67.7	61.2	6.5	21.8	7.1	2.4
Kingston (Ontario)	83.1	75.5	7.6	5.1	8.5	2.2
Peterborough (Ontario)	86.9	79.9	7.0	3.5	7.0	1.7
Oshawa (Ontario)	86.9	80.8	6.1	8.5	3.2	0.4
Toronto (Ontario)	69.9	64.5	5.4	23.3	4.6	1.2
Hamilton (Ontario)	84.4	77.8	6.7	9.3	4.5	0.7
St. Catharines - Niagara (Ontario)	90.3	83.2	7.0	2.9	4.8	1.2
Kitchener - Cambridge - Waterloo (Ontario)	88.2	81.4	6.7	5.4	4.3	1.1
Brantford (Ontario)	91.4	83.7	7.7	2.8	4.1	0.7
Guelph (Ontario)	86.2	79.1	7.0	6.2	5.1	1.5

Table 1.a Proportion of workers commuting to work by car, truck or van, by public transit, on foot, or by bicycle, census metropolitan areas, 2011 (continued)

Census metropolitan area	Car, truck or van (total)	Car, truck or van (driver)	Car, truck or van (passenger)	Public transit	Walking	Bicycle
	percentage					
London (Ontario)	85.4	78.6	6.7	6.9	5.4	1.5
Windsor (Ontario)	91.3	85.9	5.5	3.0	3.7	1.1
Barrie (Ontario)	89.8	82.7	7.1	4.6	3.7	0.7
Greater Sudbury (Ontario)	87.7	80.7	7.0	4.5	5.3	0.7
Thunder Bay (Ontario)	88.5	82.3	6.2	3.6	5.0	1.3
Winnipeg (Manitoba)	78.2	71.0	7.2	13.4	5.1	2.0
Regina (Saskatchewan)	88.6	81.7	6.8	4.8	4.7	1.2
Saskatoon (Saskatchewan)	86.5	80.5	6.0	4.4	5.1	2.0
Calgary (Alberta)	76.7	71.3	5.4	15.9	4.9	1.2
Edmonton (Alberta)	82.2	76.7	5.5	11.3	4.1	1.1
Kelowna (British Columbia)	87.2	81.6	5.5	3.4	4.9	2.6
Abbotsford - Mission (British Columbia)	92.2	84.6	7.6	2.5	2.6	0.8
Vancouver (British Columbia)	70.8	65.9	4.9	19.7	6.3	1.8
Victoria (British Columbia)	70.7	65.8	4.9	11.1	10.0	5.9

Source: Statistics Canada, National Household Survey, 2011.

Table 1.b Proportion of workers commuting to work by car, truck or van, by public transit, on foot, or by bicycle, census metropolitan areas, 2006

Census metropolitan area	Car, truck or van (total)	Car, truck or van (driver)	Car, truck or van (passenger)	Public transit	Walking	Bicycle
	percentage					
St. John's (Newfoundland and Labrador)	88.2	74.4	13.8	2.9	6.6	0.3
Halifax (Nova Scotia)	75.8	65.1	10.6	11.9	10.1	1.0
Moncton (New Brunswick)	87.1	74.7	12.4	2.8	7.6	1.0
Saint John (New Brunswick)	86.3	75.1	11.2	4.4	7.3	0.3
Saguenay (Quebec)	90.5	85.2	5.3	2.4	5.2	0.8
Québec (Quebec)	80.4	74.9	5.4	10.2	7.3	1.4
Sherbrooke (Quebec)	86.4	80.5	5.9	4.7	7.3	0.9
Trois-Rivières (Quebec)	89.5	84.9	4.6	2.4	6.0	1.4
Montréal (Quebec)	70.4	65.4	5.0	21.4	5.7	1.6

Table 1.b Proportion of workers commuting to work by car, truck or van, by public transit, on foot, or by bicycle, census metropolitan areas, 2006 (continued)

Census metropolitan area	Car, truck or van (total)	Car, truck or van (driver)	Car, truck or van (passenger)	Public transit	Walking	Bicycle
	percentage					
Ottawa - Gatineau (Ontario/Quebec)	70.8	62.8	8.0	19.4	6.8	2.1
Ottawa - Gatineau (Quebec side)	78.6	69.6	9.0	14.3	4.6	1.7
Ottawa - Gatineau (Ontario side)	68.0	60.4	7.7	21.2	7.6	2.2
Kingston (Ontario)	82.4	73.1	9.3	4.1	9.6	2.4
Peterborough (Ontario)	86.3	76.4	10.0	2.5	7.8	2.3
Oshawa (Ontario)	87.6	79.0	8.6	7.9	3.4	0.4
Toronto (Ontario)	71.1	63.6	7.5	22.2	4.8	1.0
Hamilton (Ontario)	84.6	76.1	8.5	8.7	5.0	0.9
St. Catharines - Niagara (Ontario)	89.9	81.0	8.8	2.5	5.0	1.5
Kitchener - Cambridge - Waterloo (Ontario)	87.7	78.3	9.4	4.8	5.1	1.6
Brantford (Ontario)	89.8	80.2	9.5	3.1	4.8	1.1
Guelph (Ontario)	85.1	76.7	8.3	5.8	5.9	2.2
London (Ontario)	84.6	75.5	9.1	6.7	6.1	1.6
Windsor (Ontario)	90.6	83.1	7.6	2.9	4.3	1.3
Barrie (Ontario)	90.6	81.2	9.4	3.8	3.9	0.6
Greater Sudbury (Ontario)	86.9	77.4	9.5	5.2	6.2	0.7
Thunder Bay (Ontario)	88.4	79.8	8.6	3.2	5.9	1.6
Winnipeg (Manitoba)	78.7	69.8	8.9	13.0	5.8	1.6
Regina (Saskatchewan)	87.7	79.6	8.1	4.2	5.8	1.4
Saskatoon (Saskatchewan)	86.1	78.7	7.5	3.7	6.2	2.4
Calgary (Alberta)	76.6	69.1	7.5	15.6	5.4	1.3
Edmonton (Alberta)	82.8	75.0	7.8	9.7	5.1	1.1
Kelowna (British Columbia)	89.1	81.4	7.7	2.7	4.6	2.1
Abbotsford - Mission (British Columbia)	93.2	83.2	10.0	1.8	3.2	0.7
Vancouver (British Columbia)	74.4	67.3	7.1	16.5	6.3	1.7
Victoria (British Columbia)	71.7	64.9	6.8	10.2	10.4	5.6

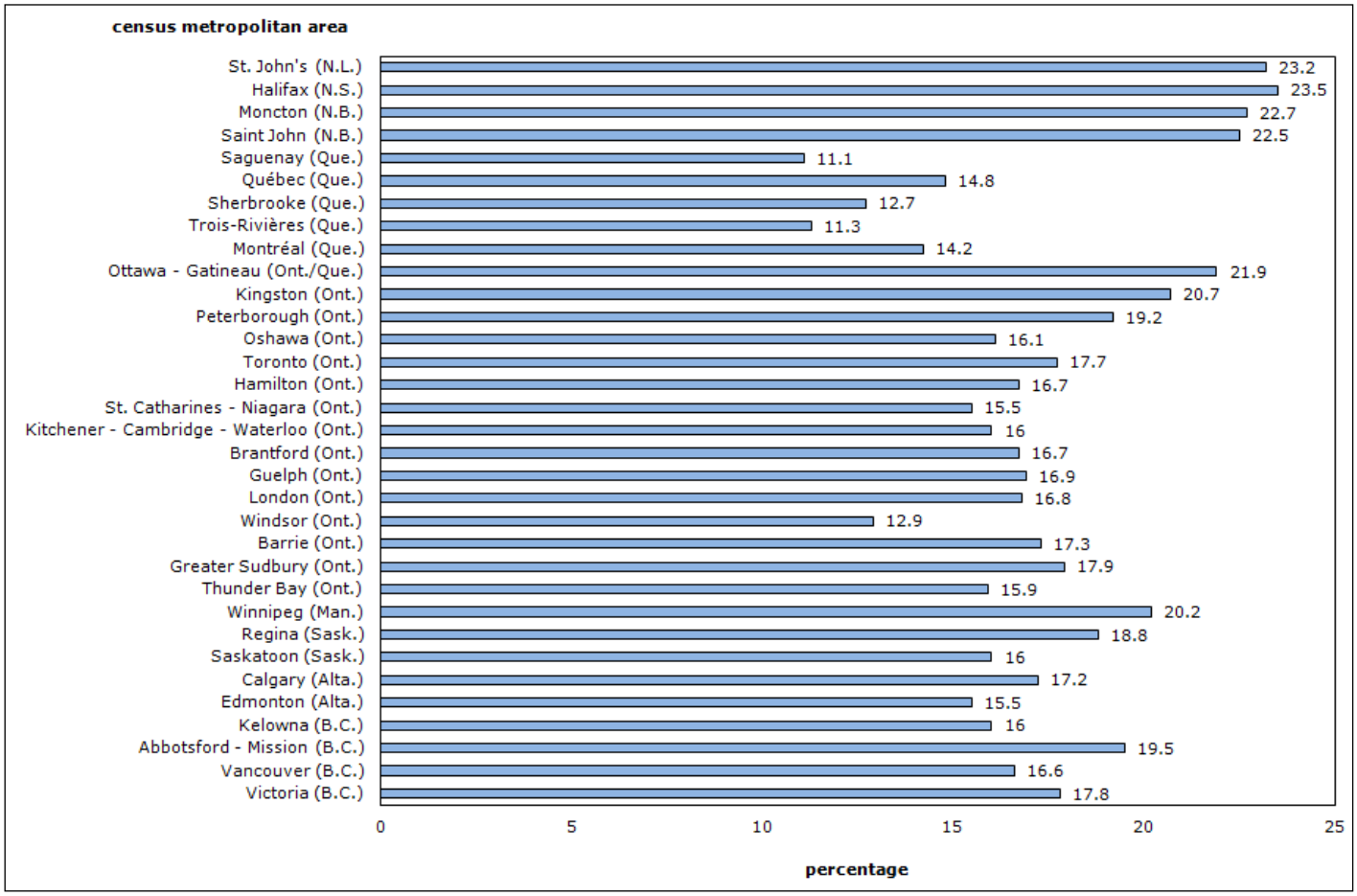
Source: Statistics Canada, Census of Population, 2006.

Carpooling more popular in eastern Canadian CMAs

In the 2011 NHS, commuters who used a vehicle were asked how many people usually travelled with them in their car, truck or van. Of the people who commuted to work by vehicle, 17.0% carpooled and the rest (83.0%) drove alone.

In 2011, the highest proportions of carpoolers were in the eastern Canadian CMAs: Halifax (23.5%), St. John's (23.2%) and Moncton (22.7%) (Figure 2). In contrast, the lowest carpooling rates were in metropolitan areas in Quebec: Saguenay (11.1%), Trois-Rivières (11.3%) and Sherbrooke (12.7%).

Figure 2 Proportion of workers commuting by car, truck or van who carpool, census metropolitan areas, 2011



Source: Statistics Canada, National Household Survey, 2011.

Travel time to work

In the 2011 NHS, commuters were also asked how long it usually took them to get from home to work. In 2011, commuters spent an average of 25.4 minutes travelling to work. This was almost the same as the average in the United States for the same year (25.5 minutes).[3]

The longest average travel times in CMAs were in Toronto (32.8 minutes), Oshawa (31.8 minutes) and Montréal (29.7 minutes) (Table 2). Comparatively, in the United States in 2011, the longest average travel times were reported in the New York - Northern New Jersey - Long Island metropolitan area (34.7 minutes) and the Washington - Arlington - Alexandria metropolitan area (33.8 minutes).

These average travel times do not reflect the experience of all commuters. For some, travel times are considerably longer. In Canada, 17.2% of commuters usually took 45 minutes or more to get to work. Commuters who live in the area surrounding the Toronto CMA were the most likely to be in this group. In 2011, 29.9% of commuters in Oshawa, 28.4% of those in Toronto and 26.6% of those in Barrie spent 45 minutes or more travelling to work (Table 2).

Table 2 Usual commuting time to work, census metropolitan areas, 2011

Census metropolitan area	Average time	0 to 14 minutes	15 to 29 minutes	30 to 44 minutes	45 to 59 minutes	60 minutes or more
	minutes	percentage				
St. John's (Newfoundland and Labrador)	17.9	38.9	46.8	10.2	1.3	2.8
Halifax (Nova Scotia)	23.7	25.8	40.0	22.2	7.1	5.0
Moncton (New Brunswick)	17.2	44.4	40.2	10.9	2.2	2.3
Saint John (New Brunswick)	20.9	32.7	42.9	15.2	5.7	3.6
Saguenay (Quebec)	16.9	48.5	36.6	9.7	3.3	1.9
Québec (Quebec)	22.0	28.0	42.3	20.1	5.9	3.7
Sherbrooke (Quebec)	18.8	39.3	41.4	13.0	3.2	3.0
Trois-Rivières (Quebec)	18.6	44.3	37.5	12.0	2.7	3.6
Montréal (Quebec)	29.7	19.0	31.5	25.6	12.0	11.9
Ottawa - Gatineau (Ontario/Quebec)	26.3	20.9	36.4	26.0	10.4	6.3
Ottawa - Gatineau (Quebec side)	26.7	21.2	34.8	26.7	10.8	6.6
Ottawa - Gatineau (Ontario side)	26.2	20.7	37.0	25.8	10.3	6.1
Kingston (Ontario)	20.4	33.0	43.5	16.4	3.5	3.6
Peterborough (Ontario)	22.2	40.2	33.5	13.4	5.6	7.3
Oshawa (Ontario)	31.8	25.5	29.4	15.3	10.6	19.3
Toronto (Ontario)	32.8	15.4	29.0	27.2	12.7	15.8
Hamilton (Ontario)	26.9	24.9	37.0	18.9	8.3	11.0
St. Catharines - Niagara (Ontario)	20.6	38.8	37.9	13.9	4.2	5.3
Kitchener - Cambridge – Waterloo (Ontario)	21.7	33.2	41.9	14.1	4.6	6.2
Brantford (Ontario)	22.7	38.8	30.3	15.6	7.9	7.4

3. *U.S. Census Bureau*, *2011 American Community Survey*.

Table 2 Usual commuting time to work, census metropolitan areas, 2011 (continued)

Census metropolitan area	Average time	0 to 14 minutes	15 to 29 minutes	30 to 44 minutes	45 to 59 minutes	60 minutes or more
	minutes	percentage				
Guelph (Ontario)	22.8	36.6	34.1	14.8	6.8	7.6
London (Ontario)	21.1	31.8	43.7	15.6	4.5	4.3
Windsor (Ontario)	18.8	34.3	46.5	13.9	3.1	2.2
Barrie (Ontario)	29.6	29.6	27.9	15.8	9.5	17.1
Greater Sudbury (Ontario)	20.1	36.2	39.9	16.4	4.3	3.1
Thunder Bay (Ontario)	17.1	47.0	39.6	9.1	1.7	2.7
Winnipeg (Manitoba)	23.3	24.3	42.3	23.4	6.3	3.9
Regina (Saskatchewan)	17.3	39.1	47.4	9.3	2.2	2.1
Saskatoon (Saskatchewan)	19.9	34.8	47.6	11.5	2.8	3.4
Calgary (Alberta)	27.0	18.0	37.8	27.7	9.5	7.0
Edmonton (Alberta)	25.6	22.7	38.3	25.0	7.9	6.1
Kelowna (British Columbia)	19.2	38.8	41.2	12.8	3.8	3.4
Abbotsford - Mission (British Columbia)	26.7	32.2	30.4	16.5	7.9	13.0
Vancouver (British Columbia)	28.4	19.6	33.0	26.6	11.0	9.9
Victoria (British Columbia)	21.8	30.1	41.7	18.4	5.5	4.3

Source: Statistics Canada, National Household Survey, 2011.

Longer travel times by public transit

Commuters who travelled by public transit took longer to get to work, on average, than commuters who used cars. In 2011, commuters who used a private vehicle spent an average of 23.7 minutes travelling to work, compared with 40.4 minutes for bus riders, 44.6 minutes for subway users and 52.5 minutes for light rail, streetcar or commuter train passengers. Public transit travel times include the time required to walk to the bus stop or the subway or train station. They also include waiting times.

In 2011, commuters who walked or bicycled spent the least time travelling to work (on average, 12.7 minutes for walkers and 20.0 minutes for cyclists).

Travel time differences between modes of transportation can vary widely from one CMA to another and by type of journey (origins and destinations). The time at which commuters leave for work can also have an effect on commuting time (see *NHS Data Tables*, Catalogue no. 99-012-X2011031 for travel times by mode of transportation and census metropolitan area).

Commuting to work

Place of residence and place of work

Place-of-work data are very useful to urban planners, as they can be used to identify the areas where jobs are concentrated in a region. When place-of-work information is combined with place-of-residence data, it is possible to determine the specific journeys for which transportation infrastructure is needed. In this context, commuting flows between municipalities, that is, the number of people who commute from one municipality to another, help to identify certain trends in types of commuter travel.

In many peripheral municipalities, a minority of commuters travel to work in the central municipality. For example, in the Toronto CMA, 27.1% of commuters who lived in the municipality of Mississauga and had a usual place of work travelled to work in the city of Toronto. The majority of commuters who lived in Mississauga (55.0%) also worked in Mississauga.

Most workers from the central municipality commuted within that municipality. For example, of commuters who lived in the municipality of Toronto and had a usual place of work (about 1 million people), 81.0% also worked there, while 17.4% commuted to one of the other 23 municipalities in the Toronto CMA (for example, Mississauga, Vaughan and Markham) and 1.6% travelled to work outside the CMA.

There are similar trends in some other large metropolitan areas. For example, in the Montréal CMA, a minority of commuters who lived in Laval (46.1%) or Longueuil (36.6%) travelled to work in the municipality of Montréal. In the Vancouver CMA, 36.1% of commuters who lived in Burnaby and 13.1% in Surrey commuted to work in the municipality of Vancouver.

People who commute to the central census tracts are more likely to take public transit, walk or bicycle. This is illustrated in the maps of the six largest CMAs (see the maps showing the percentage of the employed labour force using public transit, walking or bicycling to get to work).

Time leaving for work

In addition to information about commuters' place of residence and place of work, information about the time they leave for work helps to provide a clearer picture of how transportation demand varies through the day. In 2011, 29.1% of commuters reported leaving for work between 7:00 and 7:59 a.m., 22.1% between 8:00 and 8:59, and 18.1% between 6:00 and 6:59.

The proportion of commuters who left for work early, between 5:00 and 5:59 a.m., was 6.4%. In the CMAs, the proportion was highest in Barrie (10.8%), Oshawa (10.4%) and Abbotsford - Mission (10.2%) (see *NHS Data Tables*, Catalogue no. 99-012-X2011031).

Additional information

Additional information on Commuting to work can be found in the *NHS Data Tables*, Catalogue nos. 99-012-X2011030 through 99-012-X2011032, the *NHS Profile*, Catalogue no. 99-010-X, as well as in the *NHS Focus on Geography Series*, Catalogue no. 99-010-X2011005.

Thematic maps showing Commuting to work are also available for various geographic areas.

For details on the concepts, definitions, universes, variables and geographic terms used in the 2011 National Household Survey, please consult the *National Household Survey Dictionary*, Catalogue no. 99-000-X. For detailed explanations on concepts and for information on data quality, please refer to the reference guides on the 2011 National Household Survey (NHS) website.

Note to readers

Random rounding and percentage distributions: To ensure the confidentiality of responses collected for the 2011 National Household Survey while maintaining the quality of the results, a random rounding process is used to alter the values reported in individual cells. As a result, when these data are summed or grouped, the total value may not match the sum of the individual values, since the total and subtotals are independently rounded. Similarly, percentage distributions, which are calculated on rounded data, may not necessarily add up to 100%.

Due to random rounding, estimates and percentages may vary slightly between different 2011 National Household Survey products, such as the analytical documents and various data tables.

Comparability between estimates from the 2006 Census long form and the 2011 National Household Survey estimates: When comparing estimates from the 2006 Census long form and estimates from the 2011 National Household Survey (NHS) users should take into account the fact that the two sources represent different populations. The target population for the 2006 Census long form includes usual residents in collective dwellings and persons living abroad whereas the target population for the NHS excludes them. Moreover, the NHS estimates are derived from a voluntary survey and are therefore subject to potentially higher non-response error than those derived from the 2006 Census long form.

Acknowledgments

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APPENDIX F

POPULATION DATA

Government of Canada / Gouvernement du Canada

Canada

Statistics Canada

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Related tables: Rural Canada, Population estimates and projections.

Population, urban and rural, by province and territory (Saskatchewan)

	Population	Urban	Rural	Urban	Rural
	number			% of total population	
Sask.					
1901	91,279	14,266	77,013	16	84
1911	492,432	131,395	361,037	27	73
1921	757,510	218,958	538,552	29	71
1931	921,785	290,905	630,880	32	68
1941	895,992	295,146	600,846	33	67
1951	831,728	252,470	579,258	30	70
1956	880,665	322,003	558,662	37	63
1961	925,181	398,091	527,090	43	57
1966	955,344	468,327	487,017	49	51
1971	926,240	490,630	435,615	53	47
1976	921,325	511,330	409,990	55	45
1981	968,313	563,166	405,147	58	42
1986	1,009,610	620,195	389,415	61	39
1991	988,928	623,397	365,531	63	37
1996	990,237	627,178	363,059	63	37
2001	978,933	629,036	349,897	64	36
2006	968,157	628,913	339,244	65	35
2011	1,033,381	689,983	343,398	67	33

Notes:
Starting with the 2011 Census, the term 'population centre' replaces the term 'urban area. For more information, please see the note titled, **From urban areas to population centres**, available on our website, explains the new terminology and classification of population centres.
The rural population for 1981 to 2011 refers to persons living outside centres with a population of 1,000 AND outside areas with 400 persons per square kilometre. Previous to 1981, the definitions differed slightly but consistently referred to populations outside centres of 1,000 population.
Source: Statistics Canada, 2011 Census of Population.
Last modified: 2011-02-04.

For more statistical information, consult **2011 Census**.

To find more information related to this table, consult **Definitions, data sources, and methods**.

Date modified: 2011-02-04

APPENDIX G

LABOUR MARKET DATA

Labour Market Bulletin

Saskatchewan

April 2013

(Quarterly Edition)

The Monthly Edition of the Labour Market Bulletin is a report providing an analysis of monthly Labour Force Survey results for the province of Saskatchewan, including the Regina and Southern Saskatchewan region, and the Saskatoon and Northern Saskatchewan region.

OVERVIEW

The Saskatchewan economy gained momentum in the first quarter of the year, following stalled employment growth in the last quarter of 2012. The province posted job gains for the ninth consecutive quarter, adding 10,800 jobs between January and April. Advances in both full-time and part-time jobs resulted in a year-over-year employment growth of 4.4%, far outpacing national growth of 1.4% during the same period. The Conference Board of Canada forecasts Saskatchewan to post the second-highest economic growth nationwide this year, accelerated by recovery in the mining sector and increased agricultural output.

First-quarter employment gains were largely driven by increases in full-time employment. Following a marginal loss of full-time jobs in the fourth quarter of last year, full-time employment re-bounded strongly in the first quarter of 2013 as the province added 8,700 new full-time positions. Part-time employment was also up during the quarter, advancing by 2.2% since the fourth quarter of 2012.

Saskatchewan Quarterly Labour Force Statistics

Seasonally Adjusted Quarterly Data	1st Quarter 2013	4th Quarter 2012	1st Quarter 2012	Quarterly Variation		Yearly Variation	
				Number	%	Number	%
Population 15 + ('000)	819.7	816.4	805.8	3.3	0.4	13.9	1.7
Labour Force ('000)	575.4	568.1	556.9	7.4	1.3	18.5	3.3
Employment ('000)	552.9	542.1	529.8	10.8	2.0	23.1	4.4
Full-Time ('000)	455.9	447.3	436.4	8.7	1.9	19.5	4.5
Part-Time ('000)	97.0	94.8	93.4	2.1	2.2	3.6	3.9
Unemployment ('000)	22.5	26.0	27.2	-3.4	-13.2	-4.6	-17.1
Unemployment Rate (%)	3.9	4.6	4.9	-0.7	-	-1.0	-
Participation Rate (%)	70.2	69.6	69.1	0.6	-	1.1	-
Employment Rate (%)	67.4	66.4	65.7	1.0	-	1.7	-

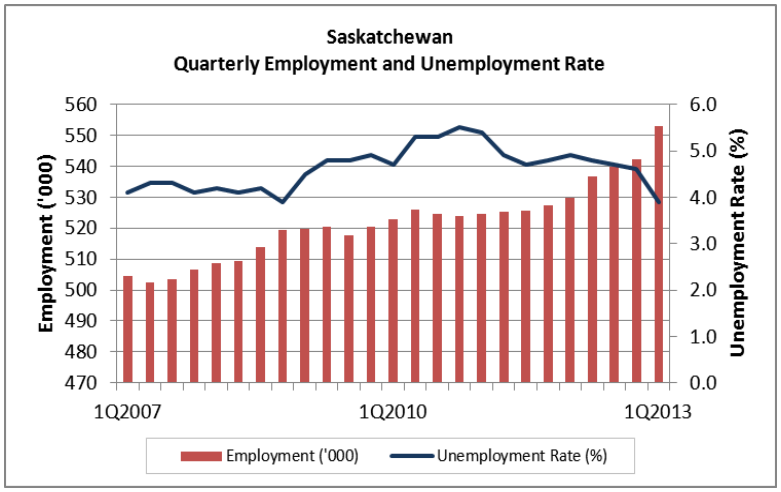
Note: Totals may not add due to rounding

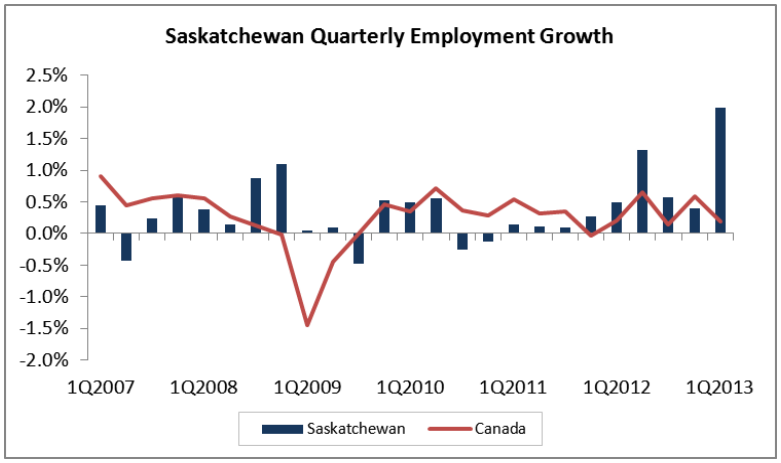
Source: Statistics Canada Labour Force Survey – CANSIM Table 282-0087

Saskatchewan's record investment levels, high job vacancy rates and above-average weekly earnings continue to attract both inter-provincial and international migrants, sparking a 3.3% year-over-year expansion in the labour force. Provincial employers share continued optimism for economic growth in the next quarter, with the majority of employers in urban centers expecting to hire more staff or at least maintain current levels.

The unemployment rate dropped to pre-recession levels, reaching a four-year low in the first quarter. Solid job creation continues to put downward pressure on an already-low unemployment rate, impacting wages and attracting more skilled workers to the province. Year over year, the provincial unemployment rate dropped one percentage point to reach 3.9%, the lowest nationwide.

Despite a rise in year-over-year unemployment among youth aged 15 to 24, youth are achieving more employment stability. In fact, full-time employment rose to its highest levels since the third quarter of 2008, although participation rates have yet to bounce back to pre-recession levels.





Saskatchewan Quarterly Unemployment Rates, by Gender and Age

Seasonally Adjusted Data	1st Quarter 2013 (%)	4th Quarter 2012 (%)	1st Quarter 2012 (%)	Quarterly Variation (% points)	Yearly Variation (% points)
Total	3.9	4.6	4.9	-0.7	-1.0
25 years and over	2.9	3.5	4.1	-0.7	-1.2
Men - 25 years and over	2.5	3.3	3.8	-0.9	-1.3
Women - 25 years and over	3.3	3.7	4.4	-0.4	-1.1
15 to 24 years	9.2	9.9	8.6	-0.7	0.6
Men - 15 to 24 years	9.6	11.0	7.9	-1.3	1.7
Women - 15 to 24 years	8.8	8.6	9.4	0.1	-0.7

Source: Statistics Canada Labour Force Survey – CANSIM Table 282-0087

EMPLOYMENT BY INDUSTRY

Saskatchewan's goods-producing sector drove job creation in the first quarter, adding 2,900 jobs. Employment growth in agriculture (+3,000) led all other industries; and in the absence of any major flooding over the next few months, crop production is expected to rise in 2013.

The construction industry continued to add new jobs over the last quarter (+1,700) as activity intensified around the province. Residential construction has been a major driver of employment growth, as homebuilders struggle to keep pace with a steady surge in population. Non-residential activity has also contributed to the surge in employment, as work continues on projects such as the $1.24-billion SaskPower clean coal project near Estevan. Looking forward, non-residential activity will continue to boost construction employment if a number of large projects move ahead as planned. Construction of a new $278-million Saskatchewan Roughriders stadium is moving closer to reality in Regina, and the provincial government has committed an estimated $131 million for 53 new highway and bridge construction projects throughout Saskatchewan.

Saskatchewan Quarterly Labour Force Statistics, by Industry

Seasonally Adjusted Data ('000)	1st Quarter 2013	4th Quarter 2012	1st Quarter 2012	Quarterly Variation		Yearly Variation	
				Number	%	Number	%
Total employed, all industries	552.9	542.1	529.8	10.8	2.0	23.1	4.4
Goods-producing sector	151.0	148.1	134.4	2.9	2.0	16.6	12.3
Agriculture	44.2	41.2	36.2	3.0	7.2	8.0	22.2
Forestry, fishing, mining, quarrying, oil and gas	25.2	26.1	24.1	-0.9	-3.6	1.1	4.6
Utilities	5.2	5.5	5.5	-0.3	-4.8	-0.2	-4.3
Construction	48.6	46.9	41.0	1.7	3.6	7.6	18.6
Manufacturing	27.7	28.3	27.8	-0.6	-2.1	0.0	-0.1
Services-producing sector	401.9	394.0	395.3	7.8	2.0	6.5	1.7
Trade	85.0	81.5	80.6	3.5	4.3	4.4	5.5
Transportation and warehousing	25.7	25.2	26.3	0.5	2.0	-0.5	-2.0
Finance, insurance, real estate and leasing	28.7	29.5	30.2	-0.8	-2.8	-1.5	-5.1
Professional, scientific and technical services	26.3	25.0	25.5	1.3	5.2	0.8	3.3
Business, building and other support services	11.4	13.7	12.4	-2.3	-16.7	-1.0	-8.0
Educational services	44.5	43.5	41.9	1.0	2.2	2.6	6.2
Health care and social assistance	74.4	70.5	69.4	3.9	5.6	5.0	7.2
Information, culture and recreation	18.3	18.8	18.5	-0.5	-2.7	-0.2	-1.3
Accommodation and food services	29.8	28.4	34.0	1.5	5.2	-4.1	-12.2
Other services	27.1	25.4	26.0	1.7	6.7	1.2	4.5
Public administration	30.5	32.5	30.6	-1.9	-6.0	-0.1	-0.3

Note: Totals may not add due to rounding

Source: Statistics Canada Labour Force Survey – CANSIM Table 282-0088

In resource extraction (forestry, fishing, mining, quarrying, oil and gas), employment was up by 4.6% on the year, despite the loss of 900 jobs in the first quarter. Activity in the mining industry is expected to accelerate over the next few months, following a reduction in potash production in the latter half of 2012. Sales agreements were signed in February with India and China, and US demand is expected to increase as agricultural producers attempt to recover from the losses incurred from last year's drought. This rekindled demand for potash, coupled with the recent signing of a new agreement for uranium trade between Canada

and India's regulatory agencies, is forecast to increase the provincial mining output by up to 5.0%[1] this year and to generate more employment opportunities.

The services-producing sector also gained momentum over the last quarter, with employment growing 2%. Gains were particularly evident in three key industries: health care and social assistance (+3,900 jobs), trade (+3,500), and accommodation and food services (+1,500). The provincial trade industry continued to perform well over the last few months, despite slightly unsettling US employment results, an ongoing debt crisis in Europe, and a slowdown in Asia.

REGIONAL ANALYSIS

Quarterly employment gains were recorded in every economic region except for Yorkton-Melville. On a year-over-year basis**, Swift Current—Moose Jaw** led all other economic regions in employment growth, posting gains of 13.9% between April 2012 and April 2013. Annual employment gains were also recorded in **Saskatoon—Biggar** (7.0%), **Regina—Moose Mountain** (+3.8%), and **Prince Albert & Northern** (+0.2%).

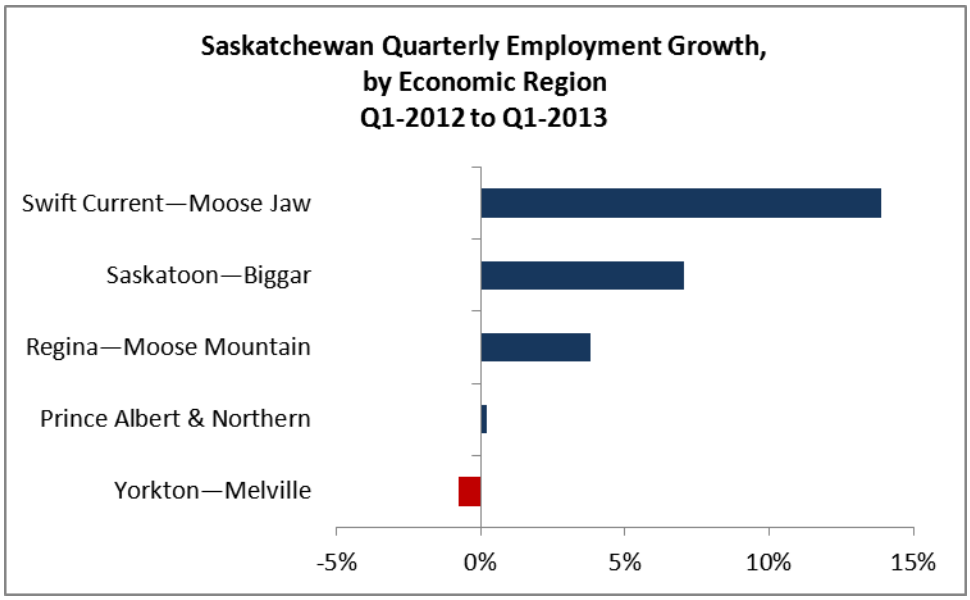
Despite losing jobs in the first quarter, **Yorkton—Melville**'s potash mine expansions resulted in a 76% increase in the dollar value of building permits issued last year[2]. If construction begins on even a portion of these permits, Yorkton-Melville could well be poised for growth over the next few years.

Saskatchewan Quarterly Labour Force Statistics, by Economic Region

Seasonally Unadjusted Data	Employment			Unemployment Rate		
	1st Quarter 2013 ('000)	1st Quarter 2012 ('000)	Yearly Variation (%)	1st Quarter 2013 (%)	1st Quarter 2012 (%)	Yearly Variation (% points)
Saskatchewan	546.4	521.4	4.8	4.0	5.2	-1.2
Economic Regions						
Regina—Moose Mountain	171.9	165.6	3.8	3.5	3.8	-0.3
Swift Current—Moose Jaw	53.3	46.8	13.9	2.0	4.7	-2.7
Saskatoon—Biggar	186.8	174.5	7.0	3.6	5.5	-1.9
Yorkton—Melville	39.1	39.4	-0.8	5.3	5.1	0.2
Prince Albert & Northern	95.3	95.1	0.2	5.8	7.4	-1.6

Note: Totals may not add due to rounding
Source: Statistics Canada Labour Force Survey – CANSIM Table 282-0054

[1] Royal Bank of Canada Provincial Outlook, March 2013.
[2] CANSIM Table 026-0007: Building permits, dwelling units by type of structure and value by activity sector, economic regions (percentage change).



FEATURE ARTICLE:
An Overview of the Saskatchewan Potash Industry

Saskatchewan's resource revenue generated from potash production has risen sharply in the last decade, reaching an estimated $1.5 billion annually. Potash, a vital nutrient used by farmers to boost crop yields, has had its worldwide demand soar as a result of rapid population growth, rising standards of living, and advancements in farming practices. Saskatchewan's 10 potash mines produce 30%[3] of the world's supply, while the province as a whole hosts 40% of all high-grade global reserves. And with Canada utilizing less than five percent of production, export markets are the prime destination for much of this output.

The potash industry is not only an invaluable source of revenues; it is also a source for jobs. In 2011, the provincial non-metallic mineral mining industry employed more than 5,000 workers. Natural Resources Canada estimates that for every job created at a mine, four jobs are generated elsewhere in the broader Canadian economy. The majority of these spinoff jobs are in wholesale trade, transportation and warehousing.

Production Capacity Expansions

The industry has numerous barriers to entry, the most significant of which is the large initial cash layout required to develop a new mine. However, successive increases in potash prices and rising demand have renewed interest in mine capacity expansions and greenfield development. BHP Billiton, pending final approval from its Board, is in the process of building the world's largest potash mine in Saskatchewan. If it proceeds to completion, BHP's $14-billion Jansen mine will employ 1,300 workers during construction and create up to 2,000 direct and indirect jobs once operational. Another sizeable initiative is K+S Potash's $3.25 billion Legacy project near Moose Jaw, the province's first new potash mine in 40 years. Once in production, the mine is expected to create 320 permanent positions.

[3] Royal Bank of Canada Provincial Outlook, March 2013.

Moreover, the province's 10 existing mines are currently undergoing expansions at a capital cost of $11.9 billion. Most projects aim to increase production capacities and modernize processes. For example, Potash Corp.'s Rocanville mine expansion is set to increase post-expansion employment from 460 to 680 positions. Another major expansion project is at Mosaic's Esterhazy mine, which will create an additional 350 jobs once operational. Combined, Saskatchewan's mine expansions and greenfield developments will increase the province's global potash production market share from 31% in 2008 to 34% in 2020. This should have a positive impact on the province's resource revenues and create new employment opportunities within the provincial mining industry.

Challenges

One of the main challenges facing the industry is the limited supply of labour, a situation that is likely to intensify as the province's working population ages. To date, the industry has relied on some out-of-province workers to address this challenge. But, as mining investments peak in the oil sands and other resource industries, it will become progressively more difficult to retain workers in Saskatchewan.

Another challenge facing the industry is purchase agreement delays by key buyers. In the second half of 2012, supply contracts expired with the world's largest potash consumers, India and China, but the two countries continued to dial back demand. Talks with Saskatchewan suppliers extended for months longer than they have in the past, stalling sales. The situation resulted in a 37% swelling in potash stocks above the previous five-year average, forcing provincial suppliers to slowdown production. Potash Corp., the world's biggest producer by capacity, idled four of its mines and alluded to further production cutbacks if demand did not pick up.

Future Prospects

Over the next 20 years, world demand for potash is expected to grow by more than 4% annually, doubling current demand. In fact, the Conference Board of Canada predicts potash extraction activities will drive growth in the non-metal mining sector, rising 5.3% annually between 2012 and 2035. If Saskatchewan is to continue capturing its historic share of world demand (30%), it will have to invest an estimated $25 billion in new mining projects and expansions to meet future needs. Correspondingly, the industry will require more labour. The Saskatchewan Mining Association estimates that an additional 15,000 workers will be needed in the next 10 years, prompting the industry to search for sources of untapped potential to ensure the supply of labour meets demand.

***Note**: In preparing this document, the authors have taken care to provide clients with labour market information that is timely and accurate at the time of publication. Since labour market conditions are dynamic, some of the information presented here may have changed since this document was published. Users are encouraged to also refer to other sources for additional information on the local economy and labour market. Information contained in this document does not necessarily reflect official policies of Human Resources and Skills Development Canada.*

***Prepared by**: Labour Market Information (LMI) Division, Service Canada, Saskatchewan*
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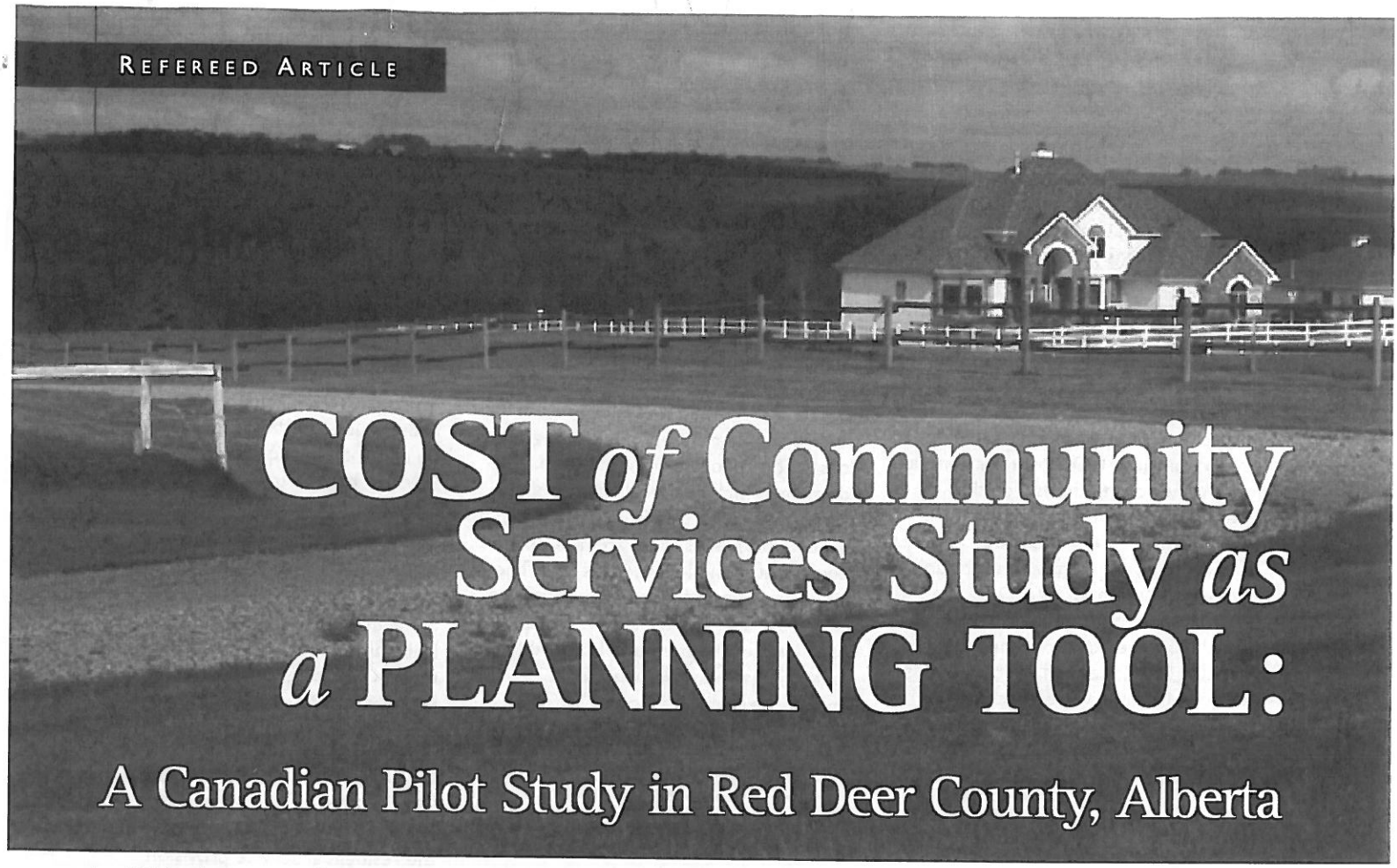
***For information on the Labour Force Survey**, please visit the Statistics Canada Web site at: www.statcan.gc.ca*

APPENDIX H

COST OF COMMUNITY SERVICES STUDY



COST *of* Community Services Study *as a* PLANNING TOOL:

A Canadian Pilot Study in Red Deer County, Alberta

by Michael Quinn and Stephanie Sanders

Photo Credit: Miistakis Institute

Summary

Cost of Community Services (COCS) is a fiscal analysis tool originally developed in the U.S. to help rural planners and decision makers understand the differences in revenues and expenditures for various land uses. We adapted the method for implementation in Canada, and, in collaboration with Red Deer County (RDC), Alberta, conducted the first Canadian COCS study. Results for RDC are comparable to published studies from the U.S. with residential land use having a revenue-to-expenditure ratio of 1:1.81 while commercial, industrial and working landscapes had ratios of 1:0.74, 1:0.09 and 1:0.70 respectively. COCS results are another valuable information tool in the planner's toolbox and provide an excellent format for communicating fiscal analysis considerations to the public.

Résumé

Le Coût des services communautaires (Cost of Community Services ou COCS en anglais) est un outil d'analyse fiscale mis au point à l'origine aux É.-U. afin d'aider les urbanistes et les décideurs ruraux à mieux comprendre les différences de revenus et de dépenses liés aux divers utilisations du sol. Nous avons adapté la méthode afin de pouvoir l'utiliser au Canada et, en collaboration avec le Comté de Red Deer (Alberta), nous avons mené la première étude canadienne COCS. Les résultats obtenus dans le Comté de Red Deer sont comparables à ceux des études publiées aux É.-U. avec un ratio de revenus/dépenses de 1:1,81 en usage résidentiel et des ratios de 1:0,74, 1:0,09 et 1:0,70 en usages commercial, industriel et agricole/forestier, respectivement. Ces résultats représentent un autre outil d'information utile à ajouter à l'arsenal de l'urbaniste et constituent une excellente plate-forme pour communiquer des considérations d'analyse fiscale au public.

Introduction

Good land use planning decisions are a function of: adequate information; clear decision-making criteria; an understanding of community values; the ability of planners to synthesize complex, multidisciplinary information in a timely manner; and wisdom. One element of this complex amalgam is the capacity to weigh the fiscal trade-offs between different types of land use. Fiscal analyses require an understanding of *both* revenues and expenditures. Many planners understand that municipal revenue from residential development does not necessarily cover the costs of servicing; however, in many instances, this is still a matter of debate in the public realm. The Cost of Community Service (COCS) method enables rural communities to cost-effectively analyze their unique land use patterns and provide information on the costs incurred by four of the main land use categories: commercial, industrial, residential and working landscapes (e.g., agriculture or forestry).

Stemming from the tradition of fiscal impact analysis, as comprehensively

described in the Fiscal Impact Handbook,[1] COCS draws upon average costing techniques and a case study approach to formulate a fiscal tool sensitive to rural land use patterns and resources. While traditional fiscal techniques have been incorporated into urban planning for decades,[2] discussion often surrounds the economic elements rather than the planning considerations. COCS, in particular, has been a widely popular tool in rural American communities. Published reviews of these COCS studies generally focus either on methods[3,4] or the potential for misinterpretation of the tool's results.[5,6,7] This case study research provided an opportunity to adapt and advance the methods of COCS in a Canadian context. An innovative approach to including the costs of roads is a particularly unique contribution of this research. Qualitative research was conducted with municipal officials and planning professionals with working knowledge of American COCS studies. This information provided significant insight into how COCS can be useful for decision makers.

Definition of COCS

COCS is a relatively simple fiscal analysis tool originally developed by the American Farmland Trust in the mid-1980s.[8] Using traditional fiscal impact analysis principles, COCS studies compare total municipal revenues to expenditures, by land use category, over the course of one fiscal year. The results are expressed as revenue to expenditure ratios for each land use. For example, the ratio 1:0.35 indicates that for every $1 of revenue, $0.35 is required to service that land use (i.e., the land use "paid" for itself) while a ratio of 1:1.50 indicates that for every $1 of revenue, $1.50 is required to service the land use (i.e., the land use did not "pay" for itself).

Red Deer County Case Study Findings and Implications

In collaboration with Red Deer County (RDC), we adapted the American method and conducted the first COCS study in Canada. RDC is a diverse county of 4,042 km² with a rural population of approximately 19,000 and mix of land uses including agriculture, recreation and rural residential. The comprehensive details of the method are beyond the scope of this paper, but are available elsewhere.[9] However, one significant methodological element bears mentioning here. During the course of modifying the American COCS method, it became apparent that in many cases, the American studies chose not to include the significant road expenditures because of challenges with apportioning the costs by land use. Since the expenditures for roads in RDC represented 56% of the municipal budget, we deemed it essential to develop an acceptable method of allocating road costs. The road allocation method developed included local traffic volume data, trip purpose data from two American national studies (as there are no Canadian equivalents), and local census data. The allocation method included a mitigation factor for the City of Red Deer's sphere of influence. The method also included testing these statistics with local knowledge from the County's staff.

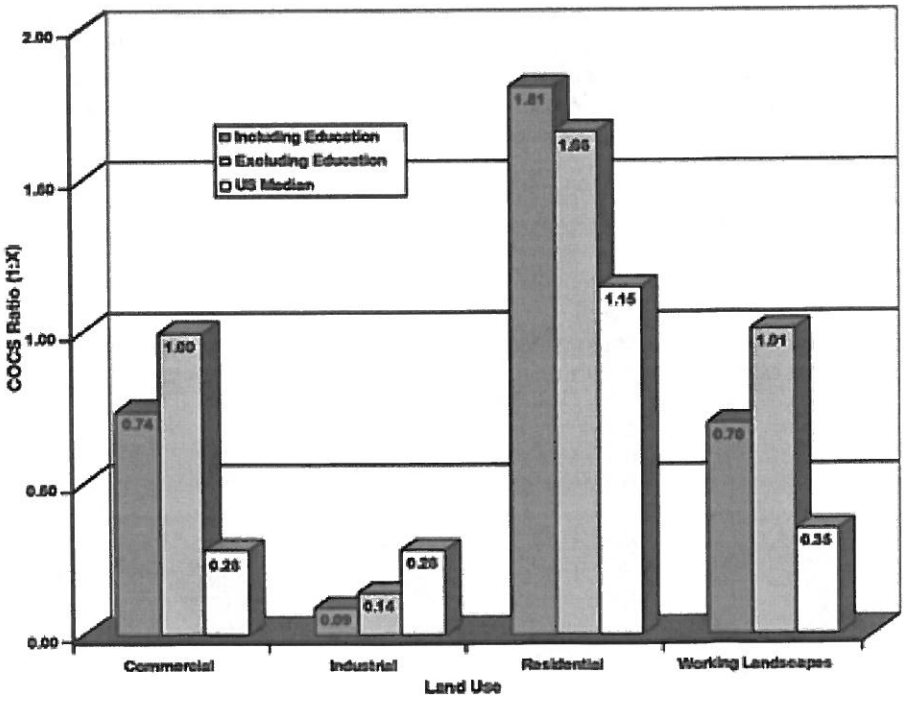
The RDC findings followed the same trends established in approximately 100 American studies (Figure 1). The overall trend is that the residential category did not "pay" for itself (i.e., expenditures exceed revenues) while the other land uses did "pay". However, there were significant differences in the details.

The RDC findings are the result of two baseline scenarios: including and excluding education. The reasoning for including an education scenario is that RDC has some involvement in tax collection for education and the educational system is highly dependent on the municipal land use pattern. However, education is not a direct municipal responsibility. So, for comparison's sake, education costs and revenues were included in one scenario and excluded in the other. Depending on information requirements, one scenario may be more insightful than the other, but both are equally accurate.

The first major difference between the RDC and American studies is the relatively high expenditure values for commercial, residential and working landscapes compared to the American median results. In the "Excluding Education" scenario, both the commercial (1:1.00) and working landscapes (1:1.01) results essentially break even – meaning the amount of expenditures equalled the amount of revenues. In this scenario, the industrial revenues are directly supporting the residential service provision.

The implications of these results are that while the overall trend remains the

FIGURE 1: RESULTS OF THE RED DEER COUNTY COST OF COMMUNITY SERVICES STUDY COMPARED TO MEDIAN VALUES FROM THE UNITED STATES



same, the significantly higher residential ratio was offset by the revenue contributions from the industrial category. Much of this revenue comes from taxation associated with linear rights of way (e.g., energy transmission). However, a sensitivity analysis that removed this taxation, and thus significant revenue sources, still resulted in low industrial land use ratios (1:0.15 including education and 1:0.33 excluding education). The commercial results differ substantially from the American results, but unfortunately the American results combined commercial with industrial to produce one ratio and so it is impossible to distinguish the proportion attributable to commercial. A comparison testing of the RDC data using the predominant American methods resulted in a combined commercial/industrial result of 1:1.55 including education; almost two times higher than the American median. Finally, the working landscapes value was high as well, but this was a direct reflection of the cost involved with RDC's agricultural services program and the impacts of prairie fires in a dry year.

Photo Credit: Miistakis Institute

COCS Issues

In comparison to traditional fiscal impact analysis, the simplicity of COCS enables rural and small communities to assess the fiscal implications of land use decisions. It does so by using existing local data rather than requiring expensive data collection studies prior to actual analysis. By using local data and keeping the calculations uncomplicated, a study can be conducted with little financial or technical resources. While the information is not as detailed as results from a traditional fiscal impact analysis, it provides a baseline and offers the ability to bring local, accurate data to the discussions on land uses and community values.

Conducting a study similar to what we have reported here necessitates a focus on participatory processes and open communication. Political confidence and credibility must be developed throughout the process to ensure the results continue to be discussed in an open and honest environment once the study is completed. In addition, municipal champions are crucial for exploring and creating these opportunities.

While the benefits are considerable, there are some limitations to the COCS method. It is essential planners and decision makers understand these limitations in order to ensure this tool is not used with false expectations. The COCS method cannot make predictions about future land use patterns, nor specific developments being proposed. COCS studies are also unable to break the land use categories down into finer categories such as country residential or hamlet commercial unless the expenditure data can be differentiated at this scale. COCS provides a fiscal – not an economic – assessment of land use categories, on average, for one year so economic spin-off effects cannot be incorporated in the analysis.

These caveats are included in every COCS study, and yet misinterpretation of COCS results is prominent. As one of the participants stated, "I see the results misused more often than I've seen them used appropriately." The most widely used misinterpretation is anti-residential, even to the point of identifying minimum housing prices (formally or otherwise) to ensure taxation "pays" for servicing. What this reaction does not account for is the potential for other factors to be at play (e.g., increased residential service provision in communities that have enough revenue to do so). There are a variety of options available to adjust the proportion of tax revenues or expenditures, if deemed necessary, rather than simply eliminating lower priced housing.

Planning Recommendations

The COCS method has been analyzed by U.S. economists, but there has been little discussion of how this tool should be of use in planning. It is through the application of COCS results and interpretations within land use decisions that the greatest impact may be had within our communities. With this in mind, the following recommendations focus on promoting healthy communities through four main areas: education, revenue adjustments, expenditure modifications, and municipal audit.

The single most important application of the COCS method is its educational value for decision makers and the community. Understanding the true fiscal implications of land uses has provided RDC with additional knowledge to make more informed decisions. As an example, one of the RDC research participants stated, "[COCS] is very quickly becoming part of our vocabulary." Continued residential development should be assessed based on this knowledge so we are not burdening future generations with fiscal debts. To achieve a viable community, municipal councils should determine an appropriate mix of land uses based on community values, natural features and fiscal consequences. During these decisions, the dual emphasis on revenues and expenditures must be maintained throughout. The inclusion of road expenditures in our method is a critical component of communicating costs and should not be underestimated when conducting this type of study. Education on the interpretation of COCS study findings is also essential and within the realm of planning.

On the revenue side of the equation, adjustments can be made through the land use process. A mixed land base will result in a mixed tax base. But we can also encourage impact fees so development directly pays for more of its related expenditures. The most encompassing recommendation is to change provincial legislation to allow greater revenue options for municipalities such as income tax or business tax. Providing municipalities with flexibility on revenue sources would reduce the dependence on land-based income. Furthermore, municipalities need to consider assessment pooling for equitable distribution of revenue regionally.

Alternatively, the focus could be on reducing expenditures. Efficient service provision as outlined in smart growth principles will reduce municipal expenditures, for example, clustering development in such a way as to reduce the overall roadway or sewer requirements. The specific options within the smart growth/low impact/sustainability fields are numerous and are worth exploring with consideration for the local opportunities and constraints. One such option that was often mentioned by research subjects within this study is the possibility of a transfer of development credits (TDC) program. A TDC program would encourage clustering of development combined with preservation of agricultural/open space/working landscapes that – in addition to other reasons for maintaining these land uses – tend to pay for themselves.

The final main recommendation is to use the COCS method as a municipal auditing tool. The process involves relating staff and departmental activities to land uses, a rare activity in most municipalities. This information can then be compared to the municipal vision to determine whether or not the goals are being implemented through daily operations.

Conclusion

The RDC findings certainly confirm the North American trend that residential land uses, on average, do not "pay" for themselves while commercial, industrial and working landscapes land uses do "pay" for themselves. This tool and its findings are a useful addition to the planning realm, providing one more piece of data from which to make municipal decisions. This method certainly does not need to be conducted in every municipality if the trends are understood, but where education is needed on this topic, it is a cost-effective mechanism providing contextual data. The inclusion of this fiscal information within political land use debates is important because land use decisions made without consideration of municipal fiscal realities can ultimately alter community character and result in financial burdens for future generations. ■

Transfer of Development Credits

Red Deer County is actively evaluating the potential of a Transfer of Development Credits (TDC) program to help achieve planning goals. TDC programs provide a mechanism to protect valued landscapes (e.g., agricultural lands, ecologically significant areas) through a market-based system that directs economic development to more suitable lands. The programs are ideally suited to landscapes facing rapid growth and development pressures. Although nearly 200 TDC programs exist in the United States, the tool has seen limited adoption in the Canadian planning environment. The scheme requires the identification of a *sending area* (area targeted for increased protection), a *receiving area* (area targeted for increased development) and a *transfer system* (program to provide valuation and transfer of development potential from the sending area to the receiving area). The potential of TDCs as a planning tool is receiving increased interest in Canada, both in urban and rural settings. Vancouver has the most active and comprehensive Canadian TDC program, the Heritage Density Transfer System, established in 1983 with the primary purpose of protecting historical buildings. Wheatland Country, a rural municipality east of Calgary, instituted a TDC program in 2006, the Subdivision Credit Application Transfer, as a mechanism to spatially cluster subdivisions. TDC programs are an emerging option in the Canadian land use planning toolbox that offer tremendous potential for meeting the complex challenges of long-range spatial planning in rapidly developing landscapes. For more information see: http://www.rockies.ca/programs/tdcs.htm

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APPENDIX I

MEETING MINUTES – MARCH 30, 2016

March 30, 2016

- 90% of well field area remains in ag production
- open to leasing land for future use
- open to conditions re: sale back to previous owner
- fibre optics running through RM 220
- power line in RM 220
- railline preferred to go north & avoid Last Mtn Hills
- EA determined technically sufficient
- EIS review - late April/early May
- mtgs with First Nations ongoing independent of
- municipal mtgs done ahead of EIS to show initiative - does not need to happen yet according to requirements
- potash tax sharing - big focus
  - big sale item
  - details @ next mtg on calculation
  - new numbers for formula in 2016
- copying K+S plans regular mention
- fire services - collaborative effort with neighbouring communities
- road safety - Yancoal provide funding for lights, signage & safety equipment
- sewage - may haul to local facilities
  - possibly construct own facility
- municipality provide business plans to bid for Yancoal to use services
  - basically RM tender for Yancoal to have use of RM structures & infrastructure
- primary access road discussions with RM 219 only
- access road alternate routes will be considered later
- if private road developed, Yancoal will pay for costs
- servicing agreement for roads - 100 yrs term
  - after 100 yrs, someone else will pay or abandon road
- Yancoal not huge consumer of aggregate
- no plan for potable water
- going through Hatfield aquifer
- no communications with outlying communities evident from questions asked by communities

- contingencies not needed as detailed as other types of mining
- Hatfield aquifer not going to be impacted
- drilling through aquifer not a concern as safe guards exist
- groundwater monitoring will be done @ various locations
- Hatfield is deep so it does not need to be protected as more shallow aquifers already protected
- potash [redacted] 1km deep
- clay lining used to stop environmental impact
- clay lining will stop contamination of aquifers
- analysis from monitoring compiled every 5 yrs & reviewed by province
- traffic monitoring - control regarding construction deliveries
  - no control over small vehicle traffic
  - will not leave RM holding costs for future expenses
  - arrangements between community & Yancoal
  - heavy loads will not be an impact
  - will be determined through IMAC meetings
- railway - not part of EA
  - up to railway to do studies
  - decision will be made soon
  - impact on communities / cost / reputation of railway part of decision factor

APPENDIX J

MINISTERIAL DECISION

PROVINCE OF SASKATCHEWAN
MINISTRY OF ENVIRONMENT
MINISTERIAL APPROVAL
PURSUANT TO SECTION 15(1)(a)
THE ENVIRONMENTAL ASSESSMENT ACT

VALE POTASH CANADA LIMITED
KRONAU POTASH PROJECT

WHEREAS Vale Potash Canada Limited (hereinafter called "the Proponent"), applied for ministerial approval as required by subsection 8(1) of The Environmental Assessment Act (the Act) for the construction, operation, and decommissioning of a new solution potash mine called the Vale Kronau Project (hereinafter called "the Development") located approximately 30 km southeast of the City of Regina near the Hamlet of Kronau, in the Rural Municipality of Edenwold No. 158, Saskatchewan;

AND WHEREAS the Minister of the Ministry of Environment (hereinafter called "the Minister"), gave notice of the assessment to be conducted as required by section 10 of the Act;

AND WHEREAS an environmental impact statement, consisting of a document entitled "Vale Kronau Project Environmental Impact Statement," and submitted August 2013 (hereinafter called "the Statement") as required by clause 9(1)(b) of the Act, describing the construction, operation, and decommissioning of the proposed Development, was submitted to the Minister;

AND WHEREAS the Minister has reviewed the Statement and has made the Statement and review available for public inspection as required by Section 11 of the Act;

AND WHEREAS the Minister is satisfied that all the requirements of the Act have been met, including those required of the Proponent;

AND WHEREAS the Minister has concluded the Development ought to be approved subject to terms and conditions.

NOW THEREFORE PURSUANT to clause 15(1)(a) of the Act, ministerial approval is hereby given to the Proponent to proceed with the Development subject to the following terms and conditions which form part of this Ministerial Approval:

1. The Proponent shall proceed with the Development in the manner described in the Statement except where alterations are required by the subsequent terms and conditions of this Approval.

2. The Proponent shall inform the Minister, in the manner described in Section 16(1) of the Act, of any change to the Development that does not conform to the terms and conditions of this Approval.

3. The Proponent shall follow the requirements of the laws and regulations of the Province of Saskatchewan respecting the design, construction, operation, maintenance and decommissioning of the Development.

4. This Approval is not an environmental approval with respect to any ancillary feature of this Development that is the responsibility of a proponent other than Vale Potash Canada Limited; for example, power transmission lines, natural gas pipelines, water supply pipeline, provincial or rural municipality roads, etc. If required, such features will be considered under separate application to be submitted by the responsible party.

5. The Proponent shall provide a signed "Development Plan Agreement" with the Rural Municipality of Edenwold No. 158 to the Environmental Assessment Branch prior to onset of construction activities at the Development site.

6. If the Development has not commenced within two years of the issuance date of this Approval, the Proponent will resubmit an application for further review in light of the circumstances of the day.

7. This Ministerial Approval takes effect on the date of signing.

Dated at Regina, Saskatchewan this 3rd day of October, 2013.

Original signed by:
Ken Cheveldayoff
Minister of Environment

PROVINCE OF SASKATCHEWAN
MINISTRY OF ENVIRONMENT
MINISTERIAL APPROVAL
PURSUANT TO SECTION 15(1)(a)
THE ENVIRONMENTAL ASSESSMENT ACT

WESTERN POTASH CORP.
MILESTONE POTASH PROJECT

WHEREAS Western Potash Corp. (hereinafter called "the Proponent"), applied for ministerial approval as required by subsection 8(1) of The Environmental Assessment Act (hereinafter called the Act) for the construction, operation, and decommissioning of a new solution potash mine called the Milestone Potash Project (hereinafter called the Development) located 35 km southeast of the City of Regina in the Rural Municipality of Lajord No. 128;

AND WHEREAS the Minister of Saskatchewan Ministry of Environment (hereinafter called "the Minister"), gave notice of the assessment to be conducted as required by section 10 of the Act;

AND WHEREAS an environmental impact statement, consisting of a document entitled "Milestone Potash Project Environmental Impact Statement," dated January 2013 (hereinafter called "the Statement") as required by clause 9(1)(b) of the Act, describing the construction, operation, and decommissioning of the proposed Development, was submitted to the Minister;

AND WHEREAS the Minister has reviewed the Statement and has made the Statement and review available for public inspection as required by Section 11 of the Act;

AND WHEREAS the Minister is satisfied that all the requirements of the Act have been met, including those required of the Proponent;

AND WHEREAS the Minister has concluded the Development ought to be approved subject to terms and conditions.

NOW THEREFORE PURSUANT to clause 15(1)(a) of the Act, ministerial approval is hereby given to the Proponent to proceed with the Development subject to the following terms and conditions which form part of this Ministerial Approval:

1. The Proponent shall proceed with the Development in the manner described in the Statement except where alterations are required by the subsequent terms and conditions of this Approval.

2. The Proponent shall inform the Minister, in the manner described in Section 16(1) of the Act, of any change to the Development that does not conform to the terms and conditions of this Approval.

3. The Proponent shall follow the requirements of the laws and regulations of the Province of Saskatchewan respecting the design, construction, operation, maintenance and decommissioning of the Development.

4. This Approval is not an environmental approval with respect to any ancillary feature of this Development that is the responsibility of a proponent other than Western Potash; for example, power transmission lines, natural gas pipelines, provincial or rural municipality roads, etc. If required, such features will be considered under separate application to be submitted by the responsible party.

5. The Proponent shall provide a signed Development Plan Agreement with the Rural Municipality of Lajord No. 128 to the Environmental Assessment Branch (EAB) prior to onset of construction activities at the Milestone site.

6. Western Potash shall submit a report to the EAB with a detailed final alignment for the process water pipeline showing environmental constraints and how mitigation measures have been incorporated in the plan to meet corporate commitments. This report will be submitted annually to the EAB starting on October 1, 2013 until this pipeline alignment has been finalized and the plan has been approved.

7. Results of rare plant and animal surveys conducted along the final process water pipeline route shall be included in the annual report to the EAB and submitted to the Saskatchewan Conservation Data Centre in appropriate digital format.

8. If the project has not commenced within two years of the issuance date of this Approval the Proponent will resubmit an application for further review in light of the circumstances of the day.

9. This Ministerial Approval takes effect on the date of signing.

Dated at Regina, Saskatchewan this 27th day of March, 2013.

Original signed by:
Ken Cheveldayoff
Minister of Environment

APPENDIX K

AGGREGATE SOURCING STUDY

October 2015

YANCOAL SOUTHEY PROJECT

Aggregate Sourcing Study - Phase 1 Summary

Submitted to:
Paul O'Hara
Amec Foster Wheeler
301-121 Research Drive
Saskatoon, Saskatchewan
S7N 1K2

REPORT

Report Number: 1525765/3000/3045

Golder Associates

Table of Contents

1.0 INTRODUCTION

Golder Associates Ltd. (Golder) was commissioned by Yancoal Resources Company Ltd. (Yancoal) to provide an aggregate study near the Southey Project (the Project), located near Southey, Saskatchewan. The general location of the core facilities area in relation to the study area is presented in Figure 1, attached. The 70% feasibility design of the Southey Project has indicated that required quantities of aggregates are approximately 500,000 cubic metres (m^3).

Discussions with local Rural Municipalities (R.M.s) of Longlaketon (R.M. 219), Cupar (R.M. 218), Lipton (R.M. 217), and Touchwood (R.M. 248) have indicated several privately and commercially developed aggregate sources within the Project study area.

Golder's proposed methodology consisted of two phases and this report summarizes the results of Phase 1 Preliminary Assessment.

2.0 DESKTOP STUDY

The surficial geology of the Project was interpreted from compiled geological mapping by a number of sources including the Saskatchewan Research Council.

The surficial geology of the Project area primarily contains array of glacial and post-glacial deposited materials including:

- Hummocky, plainer, and eroded glaciofluvial systems;
- deltaic and plainer glaciolacustrine systems;
- hummocky, plainer, ridged, and undulating morainal features;
- alluvial plain valley system
- Surficial geology of the Project is shown in Figure 2, attached;
- examination of Lidar data, downhole and airborne geophysics, historical borehole logs, and satellite imagery has also confirmed the potential of undeveloped aggregate sources in the area. Discussions with local R.M.s indicated that there are several commercial aggregate producers within the Project area; and
- it should be noted that the information provided in this memo is not comprehensive due to unavailability of landowners for communications during the desktop study and unwillingness of some landowners to disclose information. Many of the aggregate volumes presented in this memorandum remain unproven.

2.1 Existing Aggregate Sources

There are in excess of 25 developed and semi-developed borrow areas in the within an approximate 80 kilometre (km) radius of the Project area, summarized in Table 1. Many of these sources are privately owned and have been leased to commercial aggregate providers for development. These providers include, but are not limited to Lumsden based Croft Aggregates, Punnichy based Big Rock Trucking Ltd., and Regina based WF Botkin Construction Ltd. Other leases are held by the R.M.'s of Longlaketon, Cupar, Touchwood, and Lipton and the Saskatchewan Ministry of Highways. These leased borrow sources are in various stages of development ranging from undeveloped to depleted. Information during communications with these providers has indicated that total

current inventories of all types of aggregates are in excess of 12,000,000 tons or approximately 6,200,000 m^3. These aggregates include coarse granular base materials, fine and coarse well-graded gravels, and traffic gravel.

Table 1: Aggregate Summary

Source	Legal Land Description	Estimated Aggregate Volume (m^3)
1	SE-15-25-19-W2	500,000
2	NW-14-25-19-W2	
3	NE-14-25-19-W2	4,000,000
4	SW-17-26-18-W2	Unknown
5	SE-3-26-18-W2	Unknown
6	SW-2-26-18-W2	Unknown
7	SE-2-26-18-W2	Unknown
8	NW-34-25-18-W2	Unknown
9	NW-26-25-18-W2	Unknown
10	NW-14-25-18-W2	50,000
11	NW-11-25-18-W2	
12	NW-19-24-17-W2	150,000
13	SE-19-24-17-W2	
14	SW-20-24-17-W2	Depleted
15	SE-18-24-17-W2	Unknown
16	NE-23-25-15-W2	Unknown
17	NE-23-24-15-W2	1,600,000
18	SW-5-24-14-W2	Unknown
19	NW/NE-31-23-14-W2	Not interested
20	SE-33-23-14-W2	Unknown
21	NE/SE-28-23-14-W2	Unknown
22	NE-21-23-14-W2	Not interested
23	NE-32-23-14-W2	Unknown – interested in development
24	NE-32-22-14-W2	
25	SW-32-22-14-W2	

2.1.1 Aggregate Quality Control

Communications with commercial aggregate providers indicated that quality control testing is carried out on the produced aggregates in their own laboratory testing facilities. These providers indicated that the Saskatchewan Ministry of Highways and Infrastructure standards for aggregate size distribution are used for quality control testing. However, as much of the aggregate is crushed from larger sizes, particular grain size distributions can be achieved.

2.2 Undeveloped Aggregate Sources

The surficial geology of the Project area indicates that there is moderate potential for locating deposits of sand and gravel along the alluvial systems of East Loon Creek and West Loon Creek, and along the glaciofluvial system of Deer Creek, which span the R.M.s of Longlaketon, Cupar, Lipton, Touchwood, and Kellross. Thirteen locations were identified during the desktop study for further investigation during the field reconnaissance.

3.0 FIELD RECONNAISSANCE

Thirteen locations were identified for further investigation during the desktop study, as shown on Figure 2. The field reconnaissance portion of Phase 1 was completed on September 28 to September 30, 2015. Existing aggregates sources, ditch cuts, and natural geological features were observed. Of the thirteen locations, five have been suggested for further investigation during Phase 2 of the Aggregate Sourcing Study. These locations have been listed in descending order of priority for further investigation.

Location 1: SE-26-24-15-W2

This location is approximately 13 km north and 3 km east of the village of Dysart, SK. and is part of the Deer Creek fluvial valley system. The R.M. of Lipton lists the owner of this land as WBD Ranch Inc. WBD Ranch is indicated as the owner of approximately 17 quarter sections of land, most of which are directly adjacent to this location. Field reconnaissance showed that portions of this land have been developed, but remains largely intact. Communications with the landowner have indicated that previous studies have estimated the volumes of gravel and sand as 1,000,000 m^3 and 600,000 m^3, respectively. No leases are currently held on this aggregate.

Location 2: SW-15-24-15-W2 and SE-16-24-15-W2

These locations are approximately 10 km north of the village of Dysart, SK on grid road 639 and are part of the Deer Creek fluvial valley system. The locations are adjacent with SE-16-24-15-W2 lying to the west and SW-15-24-15-W2 to the east of grid road 639. The RM of Lipton lists the landowners as Bernard Chernick and Norman Serbu, respectively. Field reconnaissance has indicated that several small test pits have been dug on both properties, but remain largely undeveloped. This location is likely to contain sand and some gravel. The westernmost property held one small borrow area operated by the R.M. of Lipton. Neither landowner was available for communication during the period of this study.

Location 3: NW-16-23-14-W2

This location is approximately 7 km north of the town of Lipton, SK and 5 km west of Highway 35 and is part of the Deer Creek fluvial valley system. This location is completely undeveloped and is likely to contain sand and some gravel. The landowner was unavailable for communication during the period of this study.

Location 4: SW-8-26-19-W2

This location is approximately 21 km south of Raymore, SK and 5 km west of Highway 6 is lies within the West Loon Creek alluvial system. The R.M. of Mount Hope is currently operating borrow pits on the quarter sections directly adjacent to the west. Observations of these sources indicated that sand and gravel are readily available at this location. The R.M. of Mount Hope has indicated that the owner of this property is Gerald Orthner. The landowner was unavailable for communication during the period of this study.

Location 5: NW-13-25-19-W2

This location is approximately 22 km north of Southey, SK and 3 km west of Highway 6 and lies within the West Loon Creek alluvial system. There are currently no aggregate developments at this location, but it is likely to contain sands and gravel. The R.M. of Longlaketon has indicated that the owner of this location is Clark Hubick. The landowner was unavailable for communication during the period of this study.

4.0 SUMMARY AND RECOMMENDATIONS

Commercial aggregate developers, private landowners, and local R.M.s were contacted as part of the Aggregate Sourcing Phase 1 desktop study. This communication has suggested that aggregate for mine development can be sourced commercially or from in-situ locations aggregate sources. Field reconnaissance on September 28 to September 30, 2015 has confirmed the potential for several locations to bare in-situ aggregate sources.

Recommendations to further investigate in-situ aggregate sources include:

- meeting with the local R.M.s to confirm the ownership of each parcel of land;
- meeting with landowners to define the study area limits;
- proceed with a geophysical investigation including, but not limited to, electro-magnetic (EM) and C-CERI surveys; and
- test pitting / drilling and laboratory testing program.

5.0 CLOSURE

We trust that this technical memorandum provides sufficient information pertaining to the Phase 1 stage of the Southey Project Aggregate Sourcing Study. If you require further clarification, or if we can provide additional assistance, please contact this office.

GOLDER ASSOCIATES LTD.

PROFESSIONAL GEOSCIENTIST SASKATCHEWAN
C.B. HIGGINS
MEMBER 24765
2015 10 13
YR. MN. DAY

Colin Higgins, P.Geo.
Geologist

PROFESSIONAL ENGINEER SASKATCHEWAN
M.A.J. TREMBLAY
MEMBER 9446
15/10/13
YR. MN. DAY

Michael Tremblay, M.Sc., P.Eng.
Principal, Senior Geotechnical Engineer

CH/MAT/pls

\\golder.gds\gal\saskatoon\active\2015\3 proj\1525765 yancoal southey project sk\3000_feasibility study\3045_phase i aggregate sourcing study\1525765 rpt 15 oct 13 aggregate sourcing study.docx

Association of Professional Engineers & Geoscientists of Saskatchewan

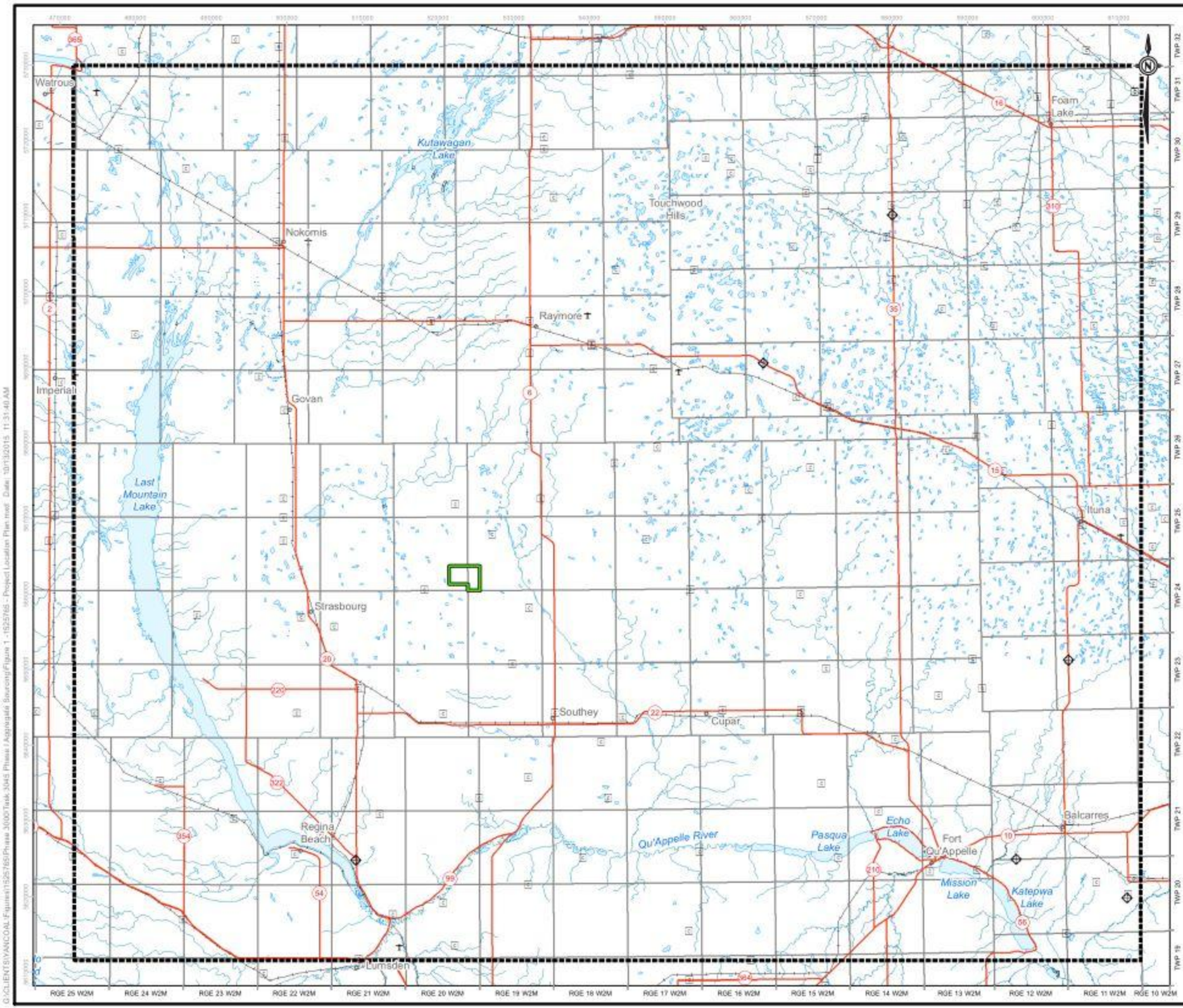
CERTIFICATE OF AUTHORIZATION

Golder Associates Ltd.
Number C0230

Permission to Consult held by:

Discipline	Sk. Reg. No.	Signature
Geotechnical	9446	

FIGURES



LEGEND

- CEMETERY
- COMMUNITY
- HISTORIC SITE/POINT OF INTEREST
- HIGHWAY
- TOWNSHIP AND RANGE BOUNDARY
- AGGREGATE STUDY AREA BOUNDARY
- CORE FACILITIES AREA

REFERENCE

CANVEC © NATURAL RESOURCES CANADA, 2012
NTS MAPSHEET: 62L/M, 72I/J/O/P
NAD83 UTM ZONE 13

10 0 10
SCALE 1:500,000 KILOMETRES

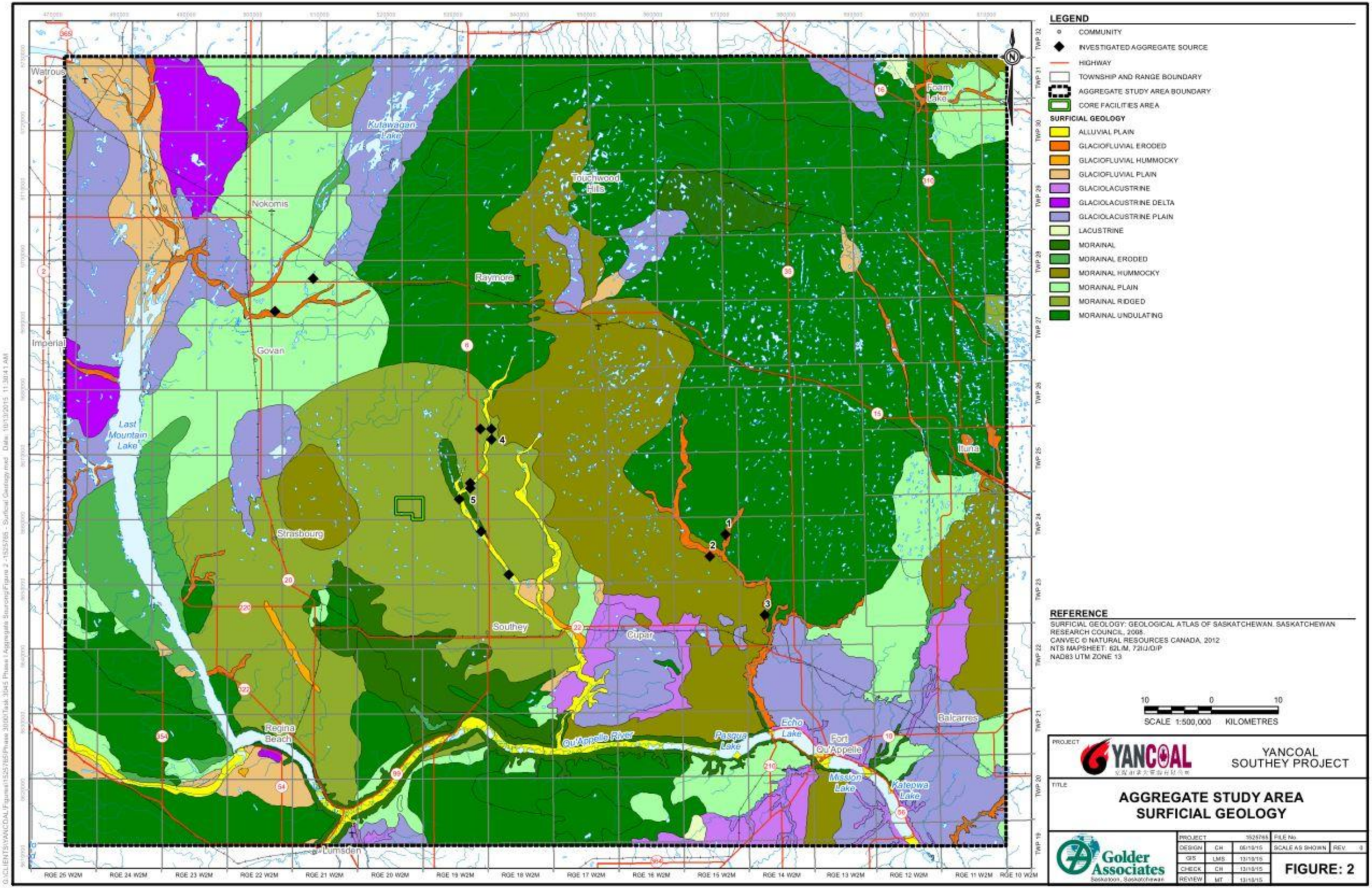
PROJECT: YANCOAL SOUTHEY PROJECT

TITLE: **PROJECT LOCATION PLAN**

Golder Associates
Saskatoon, Saskatchewan

PROJECT		1525765	FILE No.	
DESIGN	CH	06/10/15	SCALE AS SHOWN	REV. 0
GIS	LMS	13/10/15		
CHECK	CH	13/10/15	**FIGURE: 1**	
REVIEW	MT	13/10/15		

G:\CLIENTS\YANCOAL\Figures\1525765\Phase 3000\Task 3045 Phase I Aggregate Sourcing\Figure 1 - 1525765 - Project Location Plan.mxd Date: 10/13/2015 11:31:40 AM



LEGEND

- COMMUNITY
- INVESTIGATED AGGREGATE SOURCE
- HIGHWAY
- TOWNSHIP AND RANGE BOUNDARY
- AGGREGATE STUDY AREA BOUNDARY
- CORE FACILITIES AREA

SURFICIAL GEOLOGY

- ALLUVIAL PLAIN
- GLACIOFLUVIAL ERODED
- GLACIOFLUVIAL HUMMOCKY
- GLACIOFLUVIAL PLAIN
- GLACIOLACUSTRINE
- GLACIOLACUSTRINE DELTA
- GLACIOLACUSTRINE PLAIN
- LACUSTRINE
- MORAINAL
- MORAINAL ERODED
- MORAINAL HUMMOCKY
- MORAINAL PLAIN
- MORAINAL RIDGED
- MORAINAL UNDULATING

REFERENCE

SURFICIAL GEOLOGY: GEOLOGICAL ATLAS OF SASKATCHEWAN. SASKATCHEWAN RESEARCH COUNCIL, 2008.
CANVEC © NATURAL RESOURCES CANADA, 2012
NTS MAPSHEET: 62L/M, 72I/J/O/P
NAD83 UTM ZONE 13

10 0 10
SCALE 1:500,000 KILOMETRES

PROJECT: YANCOAL SOUTHEY PROJECT

TITLE: **AGGREGATE STUDY AREA SURFICIAL GEOLOGY**

Golder Associates Saskatoon, Saskatchewan

PROJECT		1525765	FILE No.
DESIGN	CH	05/15/15	SCALE AS SHOWN REV. 0
GIS	LMS	13/15/15	
CHECK	CH	13/15/15	**FIGURE: 2**
REVIEW	MT	13/15/15	

Q:\CLIENTS\YANCOAL\Figures\1525765\Phase 3000\Task 3045 Phase I Aggregate Sources\Figure 2 - 1525765 - Surficial Geology.mxd Date: 10/13/2015 11:30:41 AM

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

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Golder Associates

APPENDIX L

CITY OF REGINA – CAPITAL PROJECTS LIST

Table 1 - City of Regina Growth-Related Roadways Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Notes	Source	Location
1	13th Ave Corridor Improvements (Albert St to Lewvan Dr)	$ 330,000.00		TMP	External
2	13th Ave Corridor Improvements (Lewvan Dr to Campbell St)	$ 100,000.00		TMP	External
3	9th Ave N & Courtney St Interchange	$ 30,000,000.00	500k	TMP	
4	9th Ave N & McCarthy Blvd Interchange	$ 30,000,000.00	500k	TMP	
5	9th Ave N & Pinkie Rd Interchange	$ 30,000,000.00	500k	TMP	
6	9th Ave N reconstruction (Pinkie Rd to West Regina Bypass)	$ 4,600,000.00		TMP	External
7	9th Ave N twinning (Courtney St to Pinkie)	$ 5,600,000.00		TMP	External
8	9th Ave N twinning (Pinkie to West Regina Bypass)	$ 2,000,000.00		TMP	External
9	9th Ave N Widening (McCarthy Blvd to WRBP)	$ 11,000,000.00	500k	TMP	
10	ANNUAL EMME model Update	$ 20,000.00		TMP	
11	ANNUAL Future Gravel Road Upgrades	$ 100,000.00		TMP	
12	ANNUAL Roadways Completion Program (Unused funds capped at $100k)	$ 50,000.00		TMP	
13	ANNUAL Traffic Signal Installation Program	$ 500,000.00		TMP	
14	Arcola & Hwy #1 Bypass interchange Widening	$ 10,000,000.00	500k	TMP	
15	Arcola Ave Corridor Studies & Improvements	$ 2,000,000.00			
16	Arcola Ave Expressway Lighting (Prince of Wales to East City limit)	$ 500,000.00		TMP	External
17	Arcola Ave Extenstion (Winnipeg St to Victoria Ave)	$ 5,600,000.00		TMP	External
18	Arcola Ave Intersection Improvements (Park St & Univ Park Dr - dual lefts)	$ 2,000,000.00		TMP	External
19	Argyle St N Extension (Sangster Blvd to 1/2 way across pipeline)	$ 1,000,000.00		TMP	External

Table 1 - City of Regina Growth-Related Roadways Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Notes	Source	Location
20	Armour Rd Twinning (Diefenbaker to WRBP)	$ 10,000,000.00	500k	TMP	
21	Assiniboine Ave & Hwy 1 Bypass Interchange NB On-Ramp	$ 2,520,000.00		TMP	External
22	Campbell St Reconstruction (Hill Ave to Parliament) - interim upgrade	$ 400,000.00		TMP	HLW
23	College Avenue Corridor Improvements (Winnipeg St to Arcola Ave)	$ 400,000.00		TMP	External
24	Courtney St Extension (Sherwood Dr to 1st Ave N - west side)	$ 3,300,000.00		TMP	External
25	Courtney St Flyover at CP Mainline	$ 17,000,000.00		TMP	External
26	Courtney St Realignment (Saskatchewan Dr to Gordon Rd)	$ 22,000,000.00	500k	TMP	
27	Courtney St Reconstruction (Diefenbaker Dr to Armor Rd)	$ 4,400,000.00	500k	TMP	
28	Courtney St Reconstruction (Hill Ave to Sask Drive) - interim upgrade	$ 1,600,000.00		TMP	External
29	Courtney St Twinning (Rink Ave to Diefenbaker Dr)	$ 7,150,000.00		TMP	Coopertown
30	Courtney St Twinning (Sherwood Dr to 1st Ave N - east side)	$ 3,300,000.00		TMP	External
31	Development Standards Manual Review and Update	$ 50,000.00		Infrastructre Planning	
32	Dewdney Ave Extension (N/S Grid to Chuka Blvd) Construct	$ 2,000,000.00		TMP	Tower Crossing
33	Dewdney Ave Extension (N/S Grid to Chuka Blvd) Design	$ 300,000.00		TMP	Tower Crossing
34	Dewdney Ave reconstruction (Fleming Rd to West City Limit)	$ 5,500,000.00	500k	TMP	
35	Dewdney Ave Twinning (Courtney to Pinkie) Construct	$ 8,000,000.00		TMP	External
36	Dewdney Ave Twinning (Courtney to Pinkie) Design	$ 900,000.00		TMP	External
37	Dewdney Ave twinning (Pinkie Rd to Fleming Rd)	$ 12,000,000.00		TMP	West Industrial
38	Dewdney Widening (Oxford St to Park St) Variable Lanes	$ 1,000,000.00		TMP	External

Table 1 - City of Regina Growth-Related Roadways Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Notes	Source	Location
39	Diefenbaker Dr (McCarthy Blvd to Skyview access)	$ 1,500,000.00		TMP	External
40	Diefenbaker Dr Extension (Skyview access to Courtney St)	$ 3,850,000.00		TMP	External
41	Diefenbaker Drive - McCarthy Boulevard to Balzer Road	$ 2,035,000.00			
42	Dust Abatement Along High Grade Roads	$ 100,000.00			
43	Fleet St & Dewdney Ave Intersection (Turn Lanes)	$ 500,000.00		TMP	External
44	Fleet St Grade Seperation (CPR main line)	$ 11,550,000.00	500k	TMP	
45	Fleet St Twinning (MacRae Bay to Turvey Rd - W.S.) Construct	$ 8,800,000.00		TMP	Fleet St Bsn Pk
46	Fleet St Twinning (MacRae Bay to Turvey Rd - W.S.) Design	$ 500,000.00		TMP	Fleet St Bsn Pk
47	Fleet St Twinning (Turvey Rd to Hwy 46 - E.S.)	$ 3,520,000.00		TMP	Fleet St Bsn Pk
48	Fleming Reconstruction (North of Dewdney)	$ 3,080,000.00		TMP	West Industrial
49	Hazard Setback Study	$ 33,334.00		Infrastructre Planning	
50	Highway 6 East Service Road	$ 1,200,000.00		TMP	External
51	Hill Ave Reconstruction (Courtney St to Campbell St) - interim upgrade	$ 1,600,000.00		TMP	HLW
52	Hwy 46 twinning (Fleet St to Prince of Wales Dr)	$ 6,700,000.00	500k	TMP	
53	Lewvan & Regina Ave Traffic Capacity Improvements	$ 450,000.00			
54	Lewvan Dr & Dewdney Ave Intersection (double turn lanes)	$ 3,000,000.00		TMP	External
55	Lewvan Dr Corridor Improvements (Sask Dr to Parliament) adding turn capacity	$ 1,000,000.00		TMP	External
56	McDonald St Widening (Kress St to Fleet St)	$ 3,300,000.00		TMP	External
57	Official Community Plan (OCP) Update - ROADS COMPONENT	$ 1,016,600.00			

Table 1 - City of Regina Growth-Related Roadways Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Notes	Source	Location
58	Parachute & Hwy 1 Interchange	$ 30,000,000.00	Added project		WHL
59	Parliament Ave Extension (James Hill Rd to Campbell St)	$ 2,000,000.00		TMP	Harbour Landing
60	Pasqua St & Ring Rd Interchange	$ 40,000,000.00		TMP	External
61	Pasqua St Corridor (Sherwood to Rochdale Blvd) Functional Review	$ 200,000.00		TMP	External
62	Pasqua St Widening (Ring Rd to Rochdale Blvd)	$ 3,850,000.00		TMP	External
63	Pasqua St Widening (Ring Rd to Sherwood Dr)	$ 6,325,000.00		TMP	External
64	Pasqua St Widening (Ring Rd to Sherwood Dr) Property Purchase	$ 3,200,000.00		TMP	
65	Pinkie Rd (9th Ave N to 200m south of CPR) Property Purchase	$ 1,500,000.00		TMP	External
66	Pinkie Rd Flyover at CP Mainline	$ 20,000,000.00		TMP	
67	Pinkie Rd reconstruction (9th Ave N to 200m south of CPR) Functional	$ 400,000.00		TMP	External
68	Pinkie Rd Reconstruction (9th Ave N to south of Wascana Creek)	$ 8,000,000.00		TMP	External
69	Pinkie Rd reconstruction (Wascana Creek to Dewdney Ave)	$ 12,000,000.00		TMP	External
70	Pinkie Rd widening (Dewdney Ave to South City Limits)	$ 5,300,000.00		TMP	External
71	Pinkie Rd widening (South City Limits to Sask Drive)	$ 4,400,000.00		TMP	
72	Prince of Wales & Arcola double lefts	$ 600,000.00	500k	TMP	
73	Prince of Wales Dr Twinning (Dewdney Ave to Jenkins Dr)	$ 3,300,000.00		TMP	External
74	Prince of Wales Dr Twinning (Eastgate Dr to Dewdney Ave) Construct	$ 1,200,000.00		TMP	External
75	Prince of Wales Dr Twinning (Eastgate Dr to Dewdney Ave) Design	$ 180,000.00		TMP	External
76	Prince of Wales Grade Separation (CPR & CNR)	$ 30,000,000.00		TMP	External

Table 1 - City of Regina Growth-Related Roadways Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Notes	Source	Location
77	Prince of Wales Reconstruction - Jenkins Dr to Redbear Ave Construct	$ 2,200,000.00		TMP	External
78	Prince of Wales Reconstruction - Jenkins Dr to Redbear Ave Design	$ 300,000.00		TMP	External
79	Prince of Wales Reconstruction - Redbear Ave to Hwy 46 (West Half)	$ 3,900,000.00	500k	TMP	
80	Prince of Wales Twinning - Jenkins Dr to Hwy 46 (East Half)	$ 6,000,000.00	500k	TMP	
81	Redbear Ave Extension (Fleet St to Phase 1 Limits) Construct	$ 4,500,000.00		TMP	
82	Redbear Ave Extension (Phase 1 Limits to Prince of Wales Dr) Construct	$ 2,250,000.00		TMP	Fleet St Bsn Pk
83	Redbear Ave Extension (Phase 1 Limits to Prince of Wales Dr) Design	$ 400,000.00		TMP	External
84	Regional Collaborative Planning Study	$ 65,000.00		TMP	
85	Ring Rd Widening (Albert St to McDonald St)	$ 8,100,000.00		TMP	External
86	Ring Rd Widening (Albert St to McDonald St) Design	$ 800,000.00		TMP	External
87	Ring Rd Widening (Ross Ave to Dewdney Ave)	$ 2,500,000.00		TMP	External
88	Ring Rd Widening (Ross Ave to Dewdney Ave) Design	$ 750,000.00		TMP	External
89	Ring Road & Ross Ave Interchange	$ 30,000,000.00	500k	TMP	
90	~~Ring Road & Winnipeg St Interchange~~	~~$ 11,000,000.00~~	part of Row #137	TMP	External
91	Rochdale Blvd twinning (existing to Argyle St)	$ 1,800,000.00		TMP	Hawkstone
92	Ross Ave & McDonald St Intersection (N/S left turns)	$ 300,000.00		TMP	External
93	Ross Ave & Winnipeg St Intersection (lengthen lefts)	$ 300,000.00		TMP	External
94	Sask & Albert Interchange	$ 30,000,001.00	500k	TMP	
95	Sask & Lewvan Flyover	$ 50,000,000.00		TMP	External

Table 1 - City of Regina Growth-Related Roadways Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Notes	Source	Location
96	Sask Dr Extension & Interchange (Lewvan to Campbell) Functional	$ 300,000.00		TMP	External
97	Saskatchewan Dr & Albert St Intersection (turn lanes) Construct	$ 6,750,000.00		TMP	External
98	Saskatchewan Dr & Albert St Intersection (turn lanes) Design	$ 500,000.00		TMP	External
99	Saskatchewan Dr & Lewvan Dr Property Purchase	$ 5,625,000.00		TMP	External
100	Saskatchewan Dr Extension (Lewvan Dr to Campbell St)	$ 7,500,000.00		TMP	External
101	Saskatchewan Dr Reconstruction (Campbell to Courtney) Design	$ 500,000.00		TMP	External
102	Saskatchewan Dr Reconstruction (Campbell to Courtney) N1/2 Construct	$ 5,000,000.00		TMP	External
103	Saskatchewan Dr Reconstruction (Campbell to Courtney) S1/2 Construct	$ 5,000,000.00		TMP	External
104	Saskatchewan Dr Widening (Angus St to Princess St) Construct	$ 5,000,000.00		TMP	External
105	Saskatchewan Dr Widening (Angus St to Princess St) Design	$ 500,000.00		TMP	External
106	Saskatchewan Dr Widening (Halifax St to Quebec St)	$ 3,300,000.00		TMP	External
107	Saskatchewan Drive/13th Ave Extension/Reconstruction (Courtney to Pinkie)	$ 7,500,000.00		TMP	
108	Sustainable Infrastructure (R&D) - Transportation and ROW Studies and Pilot Projects	$ 200,000.00			
109	Trans Canada Hwy Bypass Lighting (Albert St to Wascana Pkwy)	$ 500,000.00		TMP	External
110	Transportation Master Plan - Major Update	$ 500,000.00		TMP	
111	Transportation Master Plan - Major Update	$ 500,000.00		TMP	
112	Transportation Master Plan - Major Update	$ 500,000.00		TMP	
113	Transportation Master Plan - Major Update	$ 500,000.00		TMP	
114	Transportation Master Plan - Major Update	$ 500,000.00		TMP	

Table 1 - City of Regina Growth-Related Roadways Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Notes	Source	Location
115	Transportation Master Plan - Minor Update	$ 200,000.00		TMP	
116	Transportation Master Plan - Minor Update	$ 200,000.00		TMP	
117	Transportation Master Plan - Minor Update	$ 200,000.00		TMP	
118	Transportation Master Plan - Minor Update	$ 200,000.00		TMP	
119	Transportation Master Plan - Minor Update	$ 200,000.00		TMP	
120	Universal Design - Pedestrian Ramp Studies and Pilot Projects	$ 75,000.00			
121	Victoria Ave & Park St Intersection SB double lefts	$ 500,000.00		TMP	External
122	Victoria Ave & Ring Rd Widening (Glencairn Rd to Park St)	$ 5,000,000.00		TMP	External
123	Victoria Ave & Ring Road Interchange Widen Vic Ave	$ 10,000,000.00		TMP	External
124	Victoria Ave E Widening (Fleet St to City limits)	$ 14,000,000.00		TMP	External
125	Victoria Avenue Widening Glencairn Rd to Park St	$ 4,000,000.00		TMP	External
126	Wascana Parkway/Prince of Wales Dr Extension	$ 7,700,000.00		TMP	External
127	Wascana Pkwy & Hwy No. 1 Interchange EB Dual Lefts	$ 1,500,000.00		TMP	External
128	Wascana Pkwy to POW twinning	$ 4,000,000.00	500k	TMP	
129	Winnipeg St N Widening (3rd Ave N to 5th Ave N)	$ 1,500,000.00	500k	TMP	
130	Winnipeg St reconstruction (12th Ave N to North City Limit) Construct	$ 4,500,000.00		TMP	External
131	Winnipeg St reconstruction (12th Ave N to North City Limit) Design	$ 500,000.00		TMP	External
132	Winnipeg Street Realignment & Bridge Reconstruction	$ 22,000,000.00			

Table 1 - City of Regina Growth-Related Roadways Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Notes	Source	Location
Development Specific/Internal to Subdivision Project (removed from SAF rate during Interim Phasing and Financing):					
133	Arens Rd Extension (Woodland Grove Dr to Chuka Blvd)	$ 2,420,000.00		TMP	The Greens/The Towns
134	Argyle St N Extension (1/2 way across pipeline to Rochdale Blvd)	$ 2,000,000.00		TMP	Hawkstone
135	Armor Rd Reconstruction (Diefenbaker Dr to CNR)	$ 14,500,000.00		TMP	Skywood
136	Chuka Blvd Extension (400m N of Green Apple to Primrose Green Dr)	$ 2,500,000.00		TMP	The Greens
137	Chuka Blvd Extension (Primose Green Dr to Arens Rd)	$ 3,000,000.00		TMP	The Greens
138	Chuka Blvd Extension (Victoria Ave to Dewdney Ave) including intersection	$ 5,000,000.00		TMP	Tower Crossing
139	Chuka Dr Extension (Arens to Victoria Ave)	$ 7,500,000.00		TMP	The Towns
140	Courtney St Extension (1st Ave N to Dewdney Ave)	$ 14,000,000.00	500k	TMP	
141	Courtney St Extension (Dewdney Ave to 500m North of Dewdney)	$ 2,500,000.00		TMP	Westerra North
142	Courtney St Reconstruction (Dewdney Ave to Sask Dr Extension)	$ 8,250,000.00		TMP	Westerra
143	Diefenbaker Dr Extension (Courtney St to Pinkie Rd)	$ 4,950,000.00		TMP	Coopertown
144	Gordon Rd Extension (Campbell St to 1/2 way to Courtney St)	$ 5,500,000.00		TMP	HLW
145	McCarthy Blvd Extension (Armor Rd to 600m North)	$ 3,000,000.00		TMP	Skywood
146	McCarthy Blvd Extension (Diefenbaker Dr to Armor Rd)	$ 3,000,000.00		TMP	Skywood
147	McCarthy Blvd Reconstruction (Wadge St to Rochdale Blvd)	$ 2,600,000.00		TMP	Skywood
148	N/S Arterial in HLW Construction (Parliament Ave to Hwy 1)	$ 10,000,000.00		TMP	HLW
149	Parliament Ave Extension (Campbell St to 1/2 way to Courtney St)	$ 5,500,000.00		TMP	HLW
150	Pinkie Rd reconstruction (9th Ave N to Diefenbaker Dr) east half	$ 7,500,000.00		TMP	Coopertown

Table 1 - City of Regina Growth-Related Roadways Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Notes	Source	Location
151	Rochdale Blvd Extension (Courntey St to Pinkie Rd)	$ 8,800,000.00		TMP	Coopertown

Note: Does not include intensification projects
November 3, 2014

Table 2 - City of Regina Growth-Related Waterworks Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost/Notes	Source
1	Buffalo Pound Water Treatment Plant Upgrades	$ 95,000,000.00	Changed to reflect "non-inflated" costs (ie current value)	Water & Sewer Engineering
2	Development Standards Manual Review and Update	$ 50,000.00		Infrastructure Planning
3	FUTURE Oversizing Payments	$ 1,900,000.00	Will this need to increase if trunks are no longer eligible for SAFs? Potentially use endeavour to assist??	
4	Harbour Landing West Trunk Water Main Oversizing - Gordon Rd from Campbell Street west to the edge of the West Harbour Landing Phase 1	$ 350,000.00		Southwest Serviceability Study (City of Regina 2013)
5	Hazard Setback Study	$ 33,334.00		Infrastructure Planning
6	Kensington Trunk Water Main - Kingbird Rd Dr to CPR	$ 520,000.00		
7	McCarthy North #2: Second Pressure Zone Pump Upgrades	$ 3,650,000.00	$ 500,000.00	
8	Northwest Trunk Water Main - Diefenbaker Dr from Courtney St to Armour Rd	$ 3,300,000.00	ADDED. Also accounted for in the Coopertown cost of $6,800,000.	"Second Pressure Zone Hydraulic Evaluation" (AECOM 2009) & Coopertown Servicing Report
9	OCP Development - WATER/WASTEWATER/DRAINAGE COMPONENT	$ 1,016,800.00		
10	~~Parliament Ave Trunk Water Main Oversizing - from James Hill Road to Campbell St~~	~~$ 300,000.00~~	Completed project; should be deleted from the list	~~Southwest Serviceability Study (City of Regina 2013).~~
11	Water supply capacity expansion (add 75 ML capacity to Buffalo Pound)	$ 200,000,000.00		Order of magnitude estimate from Buffalo Pound Water Board, estimated timing in 15 years
12	Eastern Pressure Zone Design & Construction	$ 70,000,000.00		SE Serviceabilty Study (plus inflation to 2014 $)
13	Sustainable Infrastructure (R&D) - Water, Wastewater and Drainage Studies and Pilot Projects	$ 200,000.00		

Table 2 - City of Regina Growth-Related Waterworks Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost/Notes	Source
14	The Towns Water Trunk Mains Oversizing - 235 K Population Between Primrose Green Drive & Arens Road	$ 450,000.00		Southeast Serviceability Study (AECOM 2012)
15	Third Pressure Zone Evaluation	$ 250,000.00		
16	Trunk Water Main - Chuka Boulevard from Green Apple Way to Primrose Green Drive to Arens Road	$ 530,000.00		
17	North Pump Station Upgrades	$ 13,000,000.00	This project was moved from the wastewater tab to the water tab.	Water & Sewer Engineering
	Development Specific/Internal to Subdivision Project (removed from SAF rate during Interim Phasing and Financing):			
18	Coopertown #1: Trunk Mains	$ 6,800,000.00	This item includes two other items.	
19	Harbouring Landing West (120 ha) #1: Trunk Mains	$ 1,750,000.00		
20	McCarthy North #1: Trunk Mains	$ 1,500,000.00		
21	Melcor (East Regina Industrial Land) #1: Trunk Mains	$ 5,000,000.00		
22	North of GTH #1: Trunk Mains	$ 5,100,000.00		
23	Northridge #1: Trunk Mains	$ 2,600,000.00		
24	SomerSet #1: Trunk Mains (allowance)	$ 1,900,000.00		
25	Victoria East (The Towns North):	$ 5,000,000.00		
26	Victoria East (The Towns South)	$ 2,000,000.00		
27	Westera & North Dewdney #1: Trunk Water Mains	$ 800,000.00		
28	Northwest Trunk Water Main - Courtney Street from Whelan Dr to Diefenbaker Dr	$ 1,000,000.00	$ 1,300,000.00	"Second Pressure Zone Hydraulic Evaluation" (AECOM 2009)
29	Northwest Trunk Water Main - McCarthy Blvd from Koep Ave to Diefenbaker Dr	$ 320,000.00	ADDED. Also accounted for in the Coopertown cost of $6,800,000.	"Second Pressure Zone Hydraulic Evaluation" (AECOM 2009) & Coopertown Servicing Report

Note: Does not include intensification projects
November 3, 2014

Table 3 - City of Regina Growth-Related Wastewater Works Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost/Notes	Source
1	Fleet Street Sewage Pumping Station	$ 5,500,000.00		Northeast Serviceability Study (AECOM 2012)
2	FUTURE Collection Sewer Mains Oversizing	$ 1,900,000.00	Will this need to increase if trunks are no longer eligible for SAFs? Potentially use endeavour to assist??	
3	Kensington Sanitary Trunk Main - Kingbird Rd Dr to CPR	$ 550,000.00		Infrastructure Planning
4	Lift station upgrades (i.e. new McCarthy)	$ 80,000,000.00	Project cost switched from $100M to $80M.	Water & Sewer Engineering - Stantec Study (Underway)
5	McCarthy Boulevard Pump Station Upgrade	$ 4,500,000.00		
6	~~Northridge #1: Trunk Main~~	~~$ 4,500,000.00~~	The same as row #43; should be removed here	
7	The Towns Sanitary Trunk Mains - 235 K Population Between Primrose Green Drive & Arens Road	$ 1,200,000.00		Northeast Serviceability Study (AECOM 2012)
8	Trunk Relief Initiative	$ 100,000,000.00	Project cost switched from $80M to $100M.	Water & Sewer Engineering - Stantec Study (Underway)
9	Southeast WWTP	$ 55,000,000.00		Regina and Region Water/WW Study
10	Wastewater Treatment Plant - Expansion	$ 180,800,000.00	Reduced from $222M based on actual P3 prices.	

Development Specific/Internal to Subdivision Project (removed from SAF rate during Interim Phasing and Financing):				
11	Coopertown Future Phases #2: Improvement Aternative 1	$ 16,385,000.00		Neighbourhood Plan
12	Coopertown Phase #1: Lift Station and Trunk Mains	$ 7,250,000.00		Neighbourhood Plan
13	Harbouring Landing West (120 ha) #2: Trunk Mains	$ 2,000,000.00		
14	Harbouring Landing West (post-300K ha) #1: Pumping Station and Force Main	$ 39,000,000.00		

Table 3 - City of Regina Growth-Related Wastewater Works Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost/Notes	Source
15	Industrial Land - Melcor (a.k.a. East Regina Industrial Land)			
16	Option No. 1: Downstream Upgrades			
17	Parallel Upgrades	$ 3,100,000.00		
18	Pump Station and Force Main	$ 800,000.00		
19	Option No. 2: In-line Storage			
20	Storage Elements	$ 5,500,000.00		
21	Pump Station and Force Main	$ 1,100,000.00		
22	Option No. 3: Enlarged In-line Storage			
23	Storage Elements	$ 8,350,000.00		
24	Pump Station and Force Main	$ 925,000.00		
25	Option No. 4: Enlarged In-line Storage			
26	Parallel Upgrades	$ 1,375,000.00		
27	Storage Elements	$ 8,350,000.00		
28	Pump Station and Force Main	$ 925,000.00		
29	McCarthy North #1: Trunk Mains	$ 3,300,000.00		
30	McCarthy North #2: Gravity Tunk to Rochdale Blvd	$ 2,200,000.00		
31	North of GTH #1: Trunk Mains	$ 3,450,000.00		
32	North of GTH #2: Pumping Station (270 L/s)	$ 12,000,000.00		
33	Northridge #1: Trunk Main	$ 4,500,000.00		
34	Victoria East (The Towns) Option#1: Pump Station and Storage	$ 19,800,000.00		
35	Victoria East (The Towns) Option #2: Pump Station and D/S Improvements	$ 39,700,000.00		
36	Westera & North Dewdney #1: Lift Station	$ 8,000,000.00		
37	Westera & North Dewdney #1: Trunk Mains	$ 2,000,000.00		Neighbourhood Plan

Note: Does not include intensification projects;
November 3, 2014

Table 3 - City of Regina Growth-Related Wastewater Works Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost/Notes	Source

Table 4 - City of Regina Growth-Related Drainage Works Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost/Notes	Source
1	North Storm Channel - North-east - East Regina Industrial Lands	$ 1,000,000.00		
2	Detention Pond - North-east - East Regina Industrial Lands	$ 500,000.00		
3	Detention Pond - Somerset Neighbourhood	$ 500,000.00		
4	Agricultural Bypass Ditch - North-east - East Regina Industrial Lands	$ 300,000.00		
5	Hawkstone Detention Pond (F) & Ditch - W of Argyle St and S of Rochdale Blvd	$ 350,000.00		
6	Detention Pond - Skyview and Agricultural Ditch	$ 2,100,000.00		
7	Greens on Gardiner Drainage Route - Chuka to Primrose - from Chuka Creek to Primrose Green Dr	$ 1,000,000.00		
8	The Towns Detention Pond and Drainage Route - from Primrose Green Dr	$ 1,750,000.00		
9	Memorial Gardens Detention Pond - South of Memorial Gardens	$ 200,000.00		
10	Riverside Drainage Servicing	$ 500,000.00		
11	Detention Pond - MR12 Harbour Landing	$ 250,000.00		
12	Coopertown #22: Creek Outlet & North Diversion Ditch	$ 25,008,150.00		
13	Victoria East (The Towns) #6: Outlet and Conveyance System	$ 725,000.00		
14	Melcor (East Regina Industrial Land) #7: North Storm Channel Extension	$ 2,463,000.00		
15	Melcor (East Regina Industrial Land) #8: Agr. Ditch and culvert replacements	$ 478,000.00		
16	SomerSet #1: Detention Pond A	$ 700,000.00		
17	SomerSet #2: Outlet and Conveyance System	$ 300,000.00		
18	Northeast Regina Industrial Lands - SW Detention	$ 500,000.00	$ 650,000.00	
19	North of GTH #5: Convey Syst (Ditch/culverts) & Outlet	$ 700,000.00		
20	Hawkstone Detention Pond 'F' - north of Rochdale Boulevard	$ 1,200,000.00		Northwest Sector Serviceability Study
21	Kensington Greens Detention Pond West Pond - West section of Kensington Greens north of Norman Mackenzie Road	$ 60,000.00		Northwest Sector Serviceability Study
22	Kensington Greens Detention Pond East Pond Remaining Work	$ 150,000.00		
23	Hawkstone Development Detention Pond 'E' MR2 & MR3 - South of Big Bear Blvd	$ 726,375.00		Northwest Sector Serviceability Study

Table 4 - City of Regina Growth-Related Drainage Works Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost/Notes	Source
24	Greens on Gardener Detention Pond MR 4 - Detention pond to be located in Phase 6 between Chuka Boulevard and and eastern boundary	$ 1,300,000.00	$ 1,430,000.00	Southeast Sector Serviceability Study
25	Hawkstone Development Detention Pond 'D' North of Big Bear Blvd	$ 600,000.00	Added project	NWSS Report; Current budget
26	Armour Road Detention Pond and Drainage	$ 550,000.00	Added project	2015 Budget (Special Study)
Development Specific/Internal to Subdivision Project (removed from SAF rate during Interim Phasing and Financing):				
27	Westera & North Dewdney #1: Detention Pond #1	$ 455,000.00		
28	Westera & North Dewdney #2: Detention Pond #2	$ 455,000.00		
29	Westera & North Dewdney #3: Detention Pond #3	$ 455,000.00		
30	Westera & North Dewdney #4: Detention Pond #4	$ 455,000.00		
31	Westera & North Dewdney #5: Convey Syst (Ditch/culverts) & Outlet	$ 700,000.00		
32	Coopertown #1: Detention Pond A & C combined	$ 1,039,287.50		
33	Coopertown #2: Detention Pond B	$ 396,575.00		
34	Coopertown #4: Detention Pond D	$ 637,637.50		
35	Coopertown #5: Detention Pond E	$ 514,025.00		
36	Coopertown #6: Detention Pond F	$ 456,750.00		
37	Coopertown #7: Detention Pond G	$ 316,825.00		
38	Coopertown #8: Detention Pond H	$ 666,275.00		
39	Coopertown #9: Detention Pond I	$ 124,337.50		
40	Coopertown #10: Detention Pond J	$ 556,800.00		
41	Coopertown #11: Detention Pond K	$ 396,937.50		
42	Coopertown #12: Detention Pond L	$ 407,087.50		
43	Coopertown #13: Detention Pond M	$ 396,937.50		
44	Coopertown #14: Detention Pond N	$ 370,837.50		

Table 4 - City of Regina Growth-Related Drainage Works Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost/Notes	Source
45	Coopertown #15: Detention Pond O	$ 521,637.50		
46	Coopertown #16: Detention Pond P	$ 403,825.00		
47	Coopertown #17: Detention Pond Q	$ 496,625.00		
48	Coopertown #18: Detention Pond R	$ 433,187.50		
49	Coopertown #19: Detention Pond S	$ 536,500.00		
50	Coopertown #20: Detention Pond T	$ 465,087.50		
51	Coopertown #21: Detention Pond U	$ 419,775.00		
52	McCarthy North #1: Pond #1	$ 455,000.00		
53	McCarthy North #2: Pond #2	$ 455,000.00		
54	McCarthy North #3: Pond #3	$ 455,000.00		
55	McCarthy North #4: Pond #4	$ 455,000.00		
56	McCarthy North #5: Outlet and Conveyance System	$ 680,000.00		
57	Victoria East (The Towns) #1: Pond #1	$ 455,000.00		
58	Victoria East (The Towns) #2: Pond #2	$ 455,000.00		
59	Victoria East (The Towns) #3: Pond #3	$ 455,000.00		
60	Victoria East (The Towns) #4: Pond #4	$ 455,000.00		
61	Victoria East (The Towns) #5: Pond #5	$ 455,000.00		
62	West Harbour Landing (post-300K) #1: Pond #1	$ 787,500.00		
63	West Harbour Landing (post-300K) #2: Pond #2	$ 787,500.00		
64	West Harbour Landing (120 ha) #3: Pond #3	$ 787,500.00		
65	West Harbour Landing (post-300K) #4: Pond #4	$ 787,500.00		
66	West Harbour Landing (post-300K) #5: Pond #5	$ 787,500.00		
67	West Harbour Landing (post-300K) #6: Pond #6	$ 787,500.00		
68	West Harbour Landing (120 ha) #7: Pond #7	$ 787,500.00		

Table 4 - City of Regina Growth-Related Drainage Works Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost/Notes	Source
69	West Harbour Landing (post-300K) #8: Pond #8	$ 787,500.00		
70	West Harbour Landing (post-300K) #9 Conveyance System & Outlet structure	$ 14,000,000.00		
71	Northridge #1: Pond #1	$ 455,000.00		
72	Northridge #2: Outlet and Conveyance System	$ 544,000.00		
73	Melcor (East Regina Industrial Land) #1: Detention Pond B	$ 571,000.00	$799,400 with 40% engineering and contingency	
74	Melcor (East Regina Industrial Land) #2: Detention Pond C	$ 124,000.00	$173,600 with 40% engineering and contingency	
75	Melcor (East Regina Industrial Land) #3: Detention Pond D	$ 352,000.00	$492,800 with 40% engineering and contingency	
76	Melcor (East Regina Industrial Land) #4: Detention Pond E	$ 579,000.00	$810,600 with 40% engineering and contingency	
77	Melcor (East Regina Industrial Land) #5: Detention Pond F	$ 158,000.00	$221,200 with 40% engineering and contingency	
78	Melcor (East Regina Industrial Land) #6: Detention Pond G	$ 173,000.00	$242,200 with 40% engineering and contingency	
79	North of GTH #1: Detention Pond #1	$ 455,000.00		
80	North of GTH #2: Detention Pond #2	$ 455,000.00		
81	North of GTH #3: Detention Pond #3	$ 455,000.00		
82	North of GTH #4: Detention Pond #4	$ 455,000.00		

Note: Does not include intensification projects
November 3, 2014

Table 5 - City of Regina Growth-Related Parks and Recreation Service Capital Projects
(2014 & Beyond)

Number	Category and Project Description	Gross Cost	Revised Cost	Source
1	Multi-use Pathways	$ 11,100,000.00		
2	North West Leisure Centre Outdoor Space	$ 2,000,000.00		
3	Off-leash Dog Park	$ 330,000.00	3 parks at $110K per park.	
4	Transportation Master Plan - PARKS AND REC COMPONENT	$ 400,000.00		
5	OCP Development - PARKS AND REC COMPONENT	$ 1,016,600.00		
6	Plant Material Establishment Funding	$ 2,450,000.00	(20 year cost)	
7	Development Standards Manual Review and Update	$ 50,000.00		Infrastructure Planning
8	Hazard Setback Study	$ 33,334.00		Infrastructure Planning
9	Lit Outdoor Boarded Rink - North of Skywood	$ 500,000.00		
10	Coopertown Zone Level Park	$ 6,670,000.00		
11	Coopertown Sub-depot	$ 400,000.00		
12	Victoria East (The Towns) Zone Level Park	$ 6,670,000.00		
13	Harbour Landing West (120 ha) Zone Level Park	$ 6,670,000.00	May be post-300K	
14	Douglas Park Support Facility and Parking Lot	$ 3,475,000.00	$ 3,525,000.00	
15	Sandra Schmirler Leisure Centre Outdoor Space	$ 720,000.00	$ 757,000.00	
16	Wascana Outdoor Aquatic Park	$ 7,700,000.00	$ 17,500,000.00	$7.6 million for new function/service, the rest includes capacity increase
17	New Indoor Outdoor Aquatic Facility (Lawson Civic Centre)	$ 27,000,000.00		
18	New Lit Artificial Turf Field - Douglas Park	$ 4,000,000.00		

Note: Does not include intensification projects
November 3, 2014

APPENDIX M

GENSOURCE SALE

GENSOURCE ANNOUNCES SIGNING OF ASSET PURCHASE AGREEMENT AND OFF TAKE TERM SHEET

SASKATOON, Saskatchewan – April 6, 2016 – Gensource Potash Corporation ("**Gensource**" or the "**Company**") (**TSX.V: GSP**) is pleased to announce that it has entered into a definitive Asset Purchase Agreement ("**APA**") which includes an off-take term sheet ("**Term Sheet**") for the sale of potash dated effective today. Collectively, these transactions offer Gensource the opportunity to advance its business plan of becoming a future potash producer in Saskatchewan. The agreement is between Gensource and Yancoal Canada Resources Co. Ltd. ("**YCR**").

The APA defines the terms for the purchase by Gensource of two potash exploration permits ("**Permit**" or "**Permits**") conditional upon their conversion into mineral production leases ("**Lease**" or "**Leases**") and also contains a Term Sheet that defines key terms for the future sale of potash product from the proposed facility. Key terms of the transaction include a purchase price of $2,480,000, payable as two installments: (i) $1,240,000 in cash at closing within 30 days of the effective date of the APA; and, (ii) a convertible debenture to YCR in the principal amount of $1,240,000 that is due on the later of 90 days of the effective date of the APA and the close of the transaction, payable in cash or convertible to shares in Gensource if sufficient funds are not raised. The shares will be issued at an exercise price equal to the 20 day VWAP prior to the maturity date. Gensource will require a financing to close, which will be completed as a private placement on terms to be announced. Gensource has agreed to pay approximately $300,000 for the Lease conversion costs, which it understands may be refunded if the permits are not converted to leases. The transaction is subject to regulatory approval.

Gensource has been clear in previous news releases that its business plan is focussed on ensuring that the product is "pre-sold" before it develops the project to any great extent. This approach is due to Gensource's understanding of the potash industry, wherein it can be easier to make the product than to sell it.

Gensource's President & CEO, Mike Ferguson, said, "The APA and Term Sheet announced today fit Gensource's business plan perfectly. The assets being purchased, if the conditions are satisfied, are two Leases where significant geological data has already been collected by YCR through recent and professionally executed drilling and seismic programs. The geological data collected may be the foundation for a future formal resource definition on the Lease(s). Additionally, the Term Sheet represents a key aspect to the transaction, providing for 100% of the planned future production to be purchased by YCR over a set period of time - one of our key foundational business concepts. In fact, Gensource is not just purchasing assets, it is entering into a business

relationship with a solid, reliable company which is, itself, in the potash development business, and the value of the business relationship is far greater than the value of the actual assets. We look forward to advancing our business plan and working with YCR to add value for both parties."

Particulars

The assets being purchased are two Saskatchewan potash exploration Permits, specifically KP-483 and KP-363 comprising a total of some 63,800 acres of land. It is a condition to the transaction that both Permits be converted to mining Leases. Significant geological data has been collected on the KP's; including two wells (one well cored and assayed through the full Prairie Evaporite, one cored and assayed through the Patience Lake member of the Prairie Evaporite.), and over 100 km of 2D seismic, covering all of KP-483 and a portion of KP-363. The data has been reviewed as part of Gensource's due diligence process and has been found to be potentially amenable to Gensource's selective dissolution methods. The geological programs were undertaken by well known and highly respected companies in the drilling, potash geology, and seismic acquisition and interpretation fields.

The APA also includes an off take term sheet and specifies that the parties will negotiate and complete a definitive off take agreement as a condition to the closing of the transaction. The Term Sheet, which forms an integral part of the APA, defines an annual tonnage to be supplied by Gensource and purchased by YCR (which is the full planned production rate of 250,000 t/a), minimum product specifications and provides options for either CFR or FOB delivery at any one of several possible port locations. Product price is based on benchmark pricing for the various port locations and delivery terms.

The transaction will close once the Permits are converted to Leases and those Leases are delivered to Gensource in a register-able form, the off take agreement is completed and all necessary regulatory approvals are received and the financing is closed.

The scientific and technical information contained in this news release was prepared by or under the supervision of Mike Ferguson, P.Eng., who is the President and Chief Executive Officer of Gensource and a Qualified Person under National Instrument 43-101.

About Yancoal Canada Resources

Yancoal Canada Resources Co., Ltd. ("YCR") is a Saskatoon-based potash exploration and development company which holds a number of potash permits situated in Saskatchewan. YCR plans to develop some of these potash permits after the completion of a Feasibility Study on the proposed Southey 2.8 million tonnes solution potash mine.

About Gensource

Gensource is based in Saskatoon, Saskatchewan and is focused on developing the next potash production facility in that province. Gensource's President and CEO, Mike Ferguson, P.Eng., has assembled a management and technical team with direct and specific expertise and experience in potash development in Saskatchewan.

Gensource operates under a business plan that has two key components - vertical integration with the market to ensure that all production capacity built is directed to a specific market, eliminating market-side risk; and, technical innovation which will allow for a small *and* economic potash production facility, the output of which can then be directed to a single, specific market.

For further information please contact:

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Caution Regarding Forward-Looking Statements

This news release may contain forward looking information and Gensource cautions readers that forward looking information is based on certain assumptions and risk factors that could cause actual results to differ materially from the expectations of Gensource included in this news release. This news release includes certain "forward-looking statements", which often, but not always, can be identified by the use of words such as "believes", "anticipates", "expects", "estimates", "may", "could", "would", "will", or "plan". These statements are based on information currently available to Gensource and Gensource provides no assurance that actual results will meet management's expectations. Forward-looking statements include estimates and statements with respect to Gensource's future plans, objectives or goals, to the effect that Gensource or

management expects a stated condition or result to occur, including completion of the YCR transaction, the expected timing for release of a resource estimate and a preliminary economic assessment, as well as a feasibility study, and the establishment of vertical integration partnerships and the sourcing of end use potash purchasers. Since forward-looking statements are based on assumptions and address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results relating to, among other things, completion of the YCR transaction, a refund of lease conversion costs in the event that the YCR transaction does not proceed, results of exploration, the economics of processing methods, project development, reclamation and capital costs of Gensource's mineral properties, Gensource's financial condition and prospects, the ability to establish viable vertical integration partnerships and the sourcing of end use potash purchasers, could differ materially from those currently anticipated in such statements for many reasons such as: an inability to complete the YCR transaction on the terms as announced or at all, including the conditions for regulatory approval and financing; denial by ministerial authorities of a refund of lease conversion costs in the event that the YCR transaction does not proceed; changes in general economic conditions and conditions in the financial markets; the ability to find distributors and source off-take agreements; changes in demand and prices for potash; litigation, legislative, environmental and other judicial, regulatory, political and competitive developments; technological and operational difficulties encountered in connection with Gensource's activities; and other matters discussed in this news release and in filings made with securities regulators. This list is not exhaustive of the factors that may affect any of Gensource's forward-looking statements. These and other factors should be considered carefully and readers should not place undue reliance on Gensource's forward-looking statements. Gensource does not undertake to update any forward-looking statement that may be made from time to time by Gensource or on its behalf, except in accordance with applicable securities laws.