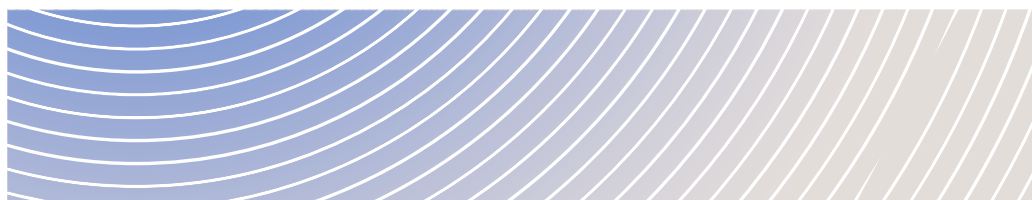


# Analysis Report



WHETHER TO DESIGNATE THE **NINE AGRICULTURAL  
DRAINAGE NETWORK PROJECTS** IN SASKATCHEWAN

December 2019

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## Purpose

The Impact Assessment Agency of Canada (the Agency) prepared this report for consideration by the Minister of Environment and Climate Change (the Minister) in the Minister's decision as to whether to designate any of the nine drainage network projects pursuant to subsection 9(1) of the *Impact Assessment Act* (IAA).

## Projects

Nine agricultural drainage network projects (the Projects) are proposed in southeastern Saskatchewan to alleviate flooding of agricultural lands:

- Blackbird Creek Drainage Network;
- Saline Lake Drainage Network;
- 600 Creek Drainage Network;
- Vipond Drainage Network;
- Dry Lake Drainage Network;
- Atwater Drainage Network;
- Lang West Drainage Network;
- Wascana Block A Drainage Network; and
- Brooksby Drainage Network.


## Context of Requests

On November 26, 2018, the Agency received a request from the Citizens Environmental Alliance—Saskatchewan, that the Minister designate the nine agricultural drainage network projects and the Saskatchewan Agricultural Water Management Strategy. The requestor did not identify proponents for the nine agricultural drainage network projects.

On December 4, 2018, the Agency notified, by letter, the Saskatchewan Water Security Agency (WSA) of the designation request and requesting information, in the absence of identified proponents. The Saskatchewan WSA responded with initial general information about the nine agricultural drainage network projects on February 1, 2019. In further correspondence additional information was provided to the Agency regarding the nine agricultural drainage network projects' potential adverse effects, general design information and standard mitigation measures typically required of proponents in permits issued by the Saskatchewan WSA.

On January 30, 2019, the Agency received a second request that the Minister designate the Blackbird Creek Project from a private landowner with property downstream of the Project in Saskatchewan and Manitoba. Subsequently, the Agency received an additional 19 requests that the Minister designate the Blackbird Creek Project from various parties including: the Municipality of Russell Binscarth (Manitoba), the Rural Municipality of Riding Mountain West (Manitoba), the Rural Municipality of Spyhill 152 (Saskatchewan), Ducks Unlimited Canada, Ducks Unlimited Canada-Manitoba, the Saskatchewan Alliance for Water Sustainability, Gambler First Nation, First Nations in Treaty 2 Territory, the Lower Qu'Appelle Watershed Stewards, the National Farmers Union, Nature Saskatchewan, Calling Lakes Ecomuseum, Ratepayers Against Illegal Drainage, and individual citizens.





On March 1, 2019, the Minister received a second letter from the initial requestor repeating the designation request and expressing concerns regarding: the adverse project-related effects including changes to water levels in surrounding areas, loss of wetland areas and functions (drought and flood mitigation, carbon sequestration, habitat), degradation of water quality (sedimentation and nutrient/chemical loading), alteration of habitats of endangered and threatened species including fish and migratory birds, potential impacts on the ability of Indigenous peoples to meaningfully practice their Aboriginal and Treaty rights; the environmental sensitivity of the Projects, given the present effects of historic alteration of landscapes, streams, and wetlands for agricultural development; and the cumulative effects of multiple, concurrent projects within the southern Saskatchewan portion of the Lake Winnipeg basin. The requestor also identified concerns with the effectiveness of provincial mitigation and with the lack of public consultation and engagement in the regulatory reviews of the nine agricultural drainage network projects by the Saskatchewan WSA.

On April 10, 2019, an electronic petition repeating the designation request for all nine agricultural drainage network project was presented to the House of Commons carrying 598 signatures. On May 27, 2019, the Government response to the electronic petition was tabled, including the Minister's response advising the petitioner that the Agency was reviewing the request to designate under the *Canadian Environmental Assessment Act, 2012* (CEAA 2012).

The Agency sought views and input on the information from the Saskatchewan WSA from federal authorities, provincial ministries, and Indigenous rights-bearing Nations between April 30 and July 5, 2019. Advice on applicable legislative mechanisms and potential effects due to the nine agricultural drainage network projects was received from Environment and Climate Change Canada (ECCC), Fisheries and Oceans Canada (DFO), Natural Resources Canada (NRCan), Health Canada (HC), Transport Canada (TC), and Agriculture and Agri-foods Canada (AAFC) between May and October 2019. Manitoba Sustainable Development and Saskatchewan Environment also provided advice.


The Saskatchewan WSA expressed that the Projects should not be designated. Kawacatoose First Nation, Cowessess First Nation, First Nations in Treaty 2 Territory, Gambler First Nation, Piapot First Nation and Manitoba Metis Federation requested that the Minister designate and require an assessment of the Blackbird Creek Drainage Network specifically or of all nine agricultural drainage network projects. Keeseekoose First Nation expressed support for the construction of the Blackbird Creek Project.

On August 28, 2019, the IAA came into force and CEAA 2012 was repealed. As a result, the designation request under CEAA 2012 was terminated and consideration of the designation request was continued under the IAA.

## **Project Context**

### **Project Overview**

The nine agricultural drainage network projects are each proposed to coordinate organized agricultural drainage of lands in Saskatchewan, with a goal of increased regulation of existing and new drainage. These projects range in scale from smaller drainage networks designed to regulate existing unpermitted drainage and address neighbour-scale water management or local flooding and erosion concerns, to larger drainage



network projects designed to address sub-watershed-scale flooding and erosion impacts. The Agency does not have specific contact information or names of proponents.


The nine networks (Figure 1) include:

1. **Blackbird Creek Drainage Network**, within the interprovincial Red/Assiniboine River watershed. The Blackbird Creek Project proponents known to the Agency include the Smith Creek Regional Watershed Association Board, the Blackbird Creek Conservation and Development Area Authority, and unnamed individual landowners holding property within the network;
2. **Saline Lake Drainage Network**, within the Fogg Lake and Whitesand River watersheds, in the upper Assiniboine River watershed. Project proponents are described by the Saskatchewan WSA as 46 landowners;
3. **600 Creek Drainage Network**, within the interprovincial lower Souris River watershed. Project proponents are described by the Saskatchewan WSA as 23 landowners;
4. **Vipond Drainage Network**, within the Moose Mountain Lake and international upper Souris River watersheds. Project proponents are described by the Saskatchewan WSA as 52 landowners;
5. **Dry Lake Drainage Network**, within the Gooseberry Lake and international upper Souris River watersheds. Project proponents are described by the Saskatchewan WSA as 73 landowners;
6. **Atwater Drainage Network**, within the Qu'Appelle River watershed. Project proponents are described by the Saskatchewan WSA as 44 landowners;
7. **Lang West Drainage Network**, within the upper Moose Jaw River and Qu'Appelle River watersheds. The Saskatchewan WSA describes the Project as administered by the Lang West Conservation and Development Area Authority for 24 landowners;
8. **Wascana Block A Drainage Network**, within the Wascana Lake (Regina) and Qu'Appelle River watersheds. The Project is described by the Saskatchewan WSA as administered by the Wascana Conservation and Development Area Authority for 16 landowners; and
9. **Brooksby Drainage Network**, within the Carrot River and Saskatchewan River watersheds. The Project is described by the Saskatchewan WSA as administered by the Willows Creek Conservation and Development Area Authority on behalf of 59 landowners.

These watersheds form part of the Lake Winnipeg basin. The Projects as proposed would increase the land area that is effectively drained (the effective drainage area) by diverting surface water out of wetlands and water bodies within the network into receiving watercourses in the Assiniboine, upper and lower Souris, Qu'Appelle, and Saskatchewan River watersheds. The proposed network structures to divert water would increase the volume and speed of collection of surface waters from fields into receiving water bodies, and increase the ability of agricultural landowners to plant crops in spring and develop land for agricultural use. Through project designs and use of flow controls, the networks are proposed to attempt to limit and control peak flows to match historic estimates of flows and flood patterns of the receiving watersheds (i.e. 1:5 event flows prior to the construction of previously unregulated drainage in the area).

Network lands include privately owned agricultural properties, public road allowances, and provincial Crown lands. The Blackbird Creek Project includes federal reserve lands held by the Keeseekoose First Nation.

The Saskatchewan WSA completed reviews of four of the networks under the *Water Security Agency Act* and associated *Water Security Regulations*, which regulate agricultural drainage in Saskatchewan, and has



issued provincial permits for the construction and operation of the Dry Lake, Wascana Block A, Lang West, and Atwater Drainage Networks. The remaining five networks (Blackbird Creek, 600 Creek, Saline Lake, Vipond, and Brooksby) are currently undergoing review by the Saskatchewan WSA.

Saskatchewan Environment reviews projects to identify the need for provincial environmental assessment under the *Environmental Assessment Act* upon request by the proponent. In the case of the nine Saskatchewan Agricultural Drainage Networks, the proponents have not requested screening by Saskatchewan Environment.

## Project Components and Activities

The Saskatchewan WSA provided information on the Projects to the Agency based on proponent regulatory applications submitted to the Saskatchewan WSA. Specific and detailed information from proponents regarding Project construction activities, scheduling, equipment and materials use, labour, and transportation is not publicly available and was not available to the Agency at the time of this analysis.

Project components described in the provincial applications for drainage network approval include existing drainage structures that are currently operating without permit and proposed new drainage structures that would expand the existing networks. The Projects are located on lands owned by the proponents or controlled by the proponents through easements, and all have diversion outlets on provincial crown lands.

The Agency reviewed the proposed agricultural drainage network diversion structure expansions. Existing infrastructure and works already constructed are not included in the Projects that may be designated under the IAA.

The Projects are individually described below, grouped by the larger watershed.


### Assiniboine watershed (interprovincial between Saskatchewan and Manitoba)

#### **Blackbird Creek Drainage Network (Red/Assiniboine River watershed)**

The Blackbird Creek Drainage Network Project (the Blackbird Creek Project), as described by the Saskatchewan WSA, is located approximately 50 kilometres east of Yorkton, between Calder and MacNutt, Saskatchewan, and would expand the existing drainage network for the diversion of water in the upper Blackbird Creek watershed and provide drainage of wetlands and surface water from 9 308 hectares of lands for agricultural development. The Saskatchewan-Manitoba border is approximately 6 kilometres downstream of the Blackbird Creek Project. The Saskatchewan WSA identified provincial Crown lands within this network to include Blackbird Creek at the network's outlet as well as natural water bodies within the network that are surrounded by private lands.

The Blackbird Creek Project would involve the construction and operation of expansions to existing agricultural drainage channels, canals, and roadside ditches, and the construction of new dykes and berms to temporarily impound water for flow control or for consolidation of wetlands. The Blackbird Creek Project would also include bank armouring, installation of culverts and related road upgrades to raise rural highways and roads, clearing of vegetation and sediment from existing watercourses, and the establishment and operation





of a maintenance corridor so ditches and channelized watercourses can be dredged, cleared of vegetation, or otherwise maintained as parts of the networked water diversion structure.

The Blackbird Creek Project would expand the existing Blackbird Creek drainage network by adding 104 938 metres of channel to the existing network of channels and ditches and increasing the area of wetlands drained within the network by 116 hectares. The Saskatchewan WSA predicts this expansion will increase the amount of water diverted by the network from its current operating levels by approximately 235 092 cubic metres per year, approximately a 20 percent increase of water volume diverted from the existing network (1 147 806 cubic metres per year). It would operate permanently, subject to the rate of water output from the watershed collecting through the constructed network of drainage ditches and canals. The Saskatchewan WSA describes that the project conditions include that flows at the network's adequate outlet be constricted to 3.2 cubic metres per second; peak mean daily flows historically have been as high as 4.09 cubic metres per second.

### **Saline Lake Drainage Network (Upper Assiniboine River watershed)**

The Saline Lake Drainage Network Project (Saline Lake Project) is located approximately 100 kilometres northwest of Yorkton, Saskatchewan, and is a 8 400 hectare basin discharging to Saline Lake, a permanent, large (approximately 445 hectares) lacustrine wetland that flows to Fogg Lake and the Whitesand River. The network area includes agricultural lands used for grain production.

Saline Lake water levels are controlled by a Ducks Unlimited Canada operated control structure on the eastern outlet. The predicted water diversion capacity at the outlet of the Saline Lake Project was estimated by the Saskatchewan WSA based on network area to be approximately 7.8 cubic metres per second in typical flow conditions (1:2 flood event). The Saline Lake Project involves 13 146 metres of proposed new diversion works and the Saskatchewan WSA anticipates this to result in additional 166 751 cubic metre per year volume diverted into the lake (a six percent increase above the existing network drainage diversion of 2 606 866 cubic metre per year). Two proposed dams to temporarily store water while regulating the outflow are also proposed; however, information on these dams was not provided to the Agency.


Wetlands within the Saline Lake Project are described as previously modified by unregulated drainage activities. The proposed expansion to the existing network would drain the remaining five percent of the network's wetland area or an additional 33 hectares of wetland.

### *Upper Souris River (interjurisdictional with the United States of America) and Lower Souris River (interjurisdictional with Manitoba) watersheds*

### **600 Creek Drainage Network (Lower Souris River watershed)**

The 600 Creek Drainage Network Project (the 600 Creek Project), located on the Saskatchewan—Manitoba border and 30 kilometres north of the Canada—United States border, would expand an existing drainage network for the diversion of water at or across the Saskatchewan-Manitoba border and provide drainage of wetlands and surface water. The 600 Creek Project expansion is proposed for lands owned or controlled by the proponents through easements and includes natural water bodies that are isolated provincial Crown lands within a matrix of private lands. Saskatchewan WSA describes 600 Creek at the Saskatchewan-Manitoba border as ephemeral (usually goes dry after spring runoff).





The original design included the 600 Creek Project outlet at Gainsborough Creek, Manitoba. Concerns with potential localized flooding impacts from drainage on 600 Creek in Manitoba required the proponent to redesign the network to locate a new outlet. The Saskatchewan WSA has advised the Agency that the 600 Creek Project will not proceed with the current point of adequate outlet across the Saskatchewan–Manitoba border unless the project can be designed, working with Manitoba, to throttle flows and resolve the infrastructure capacity issues as recommended by the engineering report.

The 600 Creek Project proposes to construct an additional 189 376 metres of drainage structures (surface channels and tile, or subsurface, pipe) to drain 619 hectares of wetland (including multiple small wetland basins). Construction of smaller dykes and berms (720 metre in total length) would be required to temporarily retain water (flow controls) in impoundments smaller than 10 hectares. Based on information from the Saskatchewan WSA, the design of these dykes or berms are still being considered by the engineering firm retained by the project applicants. The current draft application proposes 48 flow control structures. The proposed network expansion is expected to increase the water diversion capacity and introduce 1 452 300 cubic metres per year of water into the receiving downstream water body. Flow estimates were not provided by the Saskatchewan WSA.

### **Vipond Drainage Network (Moose Mountain Lake and Lower Souris River watersheds)**

The Vipond Drainage Network Project (the Vipond Project) is 7 161 hectares and discharges to Vipond Creek approximately six kilometres East of Glenavon, Saskatchewan. The existing outlet of the Vipond Creek Project is a large lacustrine wetland that drains into Vipond Creek, a seasonal creek in the Moose Mountain Creek and Souris River watersheds. The network includes a mix of grain production and pasture lands.

On July 21, 2017, an application for *Approval to Construct and Operate Drainage Works* was submitted to the Saskatchewan WSA on behalf on network landowners. The Vipond Project expansion proposes to construct 4427 metres of new surface drainage channels intermixed with an existing 50 901 metres of drainage channels already in operation. The Saskatchewan WSA describes the flow capacity of the network's outlet structure to be 2.7 cubic metres per second. The expansion is expected to result in additional 296 392 cubic metres per year water diverted through the network (an 8 percent increase).

A total of 1 353 wetlands (palustrine marshes) are located within the network with an average size of 0.53 hectares and are either currently drained or proposed to be drained by the Project, with a total wetland area of 741 hectares proposed to be drained or partly drained by the Vipond Project.

### **Dry Lake Drainage Network (Gooseberry Lake and Upper Souris River watersheds)**

The Dry Lake Drainage Network Project is located within the Goose Berry Lake watershed near Huronville, Saskatchewan and approximately 50 kilometres northeast of Weyburn, Saskatchewan. The Dry Lake Project was provincially permitted in 2017, when provincial *Approval to Construct* (ATC), *Approval to Operate* (ATO), and *Aquatic Habitat Protection Permits* were issued together with integrated mitigation conditions. The Project is intended to divert water from wetlands and water bodies within the 7 284 hectares basin into the proposed drainage network to increase the ability of agricultural landowners to plant crops in spring and develop land for agricultural use.



Saskatchewan WSA issued an approval for a joint application for the Dry Lake Drainage Network that was submitted by the Upper Souris Watershed Association and 73 landowners on January 23, 2017. The Saskatchewan WSA indicated to the Agency in August 2019 that construction had not yet commenced under these permits and that the typical construction season for drainage construction followed fall harvest in October and November.

The Saskatchewan WSA describes the total volume diverted across all waterbodies within the network to be 147 032 cubic metres per year. The Dry Lake Project includes existing drainage works (81.6 kilometres of existing linear ditching) and expansion through the addition of 28.8 kilometres of drainage channels and seven additional flow controls. The WSA provided information that between the existing and proposed drainage, 38 percent of wetlands in the network will be drained or fully drained. The Saskatchewan WSA does not provide an estimate for the percent change in diversion capacity.

*Qu'Appelle and upstream watersheds (interprovincial with Manitoba)*

**Atwater Drainage Network (Qu'Appelle River Watershed)**

The Atwater Drainage Network Project consists of 47 square kilometres (4 700 hectares) within five separate sub-basins that collectively drain to the Kapsovar Creek, a seasonal-to-permanent creek that empties into the Qu'Appelle River near the Saskatchewan-Manitoba border. The Atwater Project is located approximately 60 kilometres southeast of Yorkton, Saskatchewan, and includes the Town of Atwater, Saskatchewan.

In September and October 2017, applications for *Approval to Construct and Operate Drainage Works* were submitted to the Saskatchewan WSA. A total of 28 593 metres of surface drainage channels (ditches) are proposed to be constructed, connecting to existing drainage channels already in operation (20 percent increase in the volume of water diverted across all structures). New temporary dykes and berms (totaling an estimated 1 035 metres) would vary in size and location within the network. The 69 flow control structures or culverts proposed within the network are described by the Saskatchewan WSA as having the potential to hold back water within the network in areas with the largest estimated to be approximately 23 hectares.


The total estimated volume of water currently diverted by the Atwater Project is 1 893 911 cubic metres, and capacity of the channel at the network outlet was estimated by the Saskatchewan WSA to be 2.0 cubic metres per second in typical flow conditions (1:2 flood event). The proposed Project expansion will increase the amount of water drained by 387 520 cubic metres (approximately 20 percent).

Within the Atwater Project, a total of 455 hectares of wetland area is proposed to be newly drained as part of the network expansion. The Saskatchewan WSA describes many of these wetlands as temporary, ephemeral, or seasonal wetlands with an average wetland size of 0.7 acres.

**Lang West Drainage Network (Upper Moose Jaw River and Qu'Appelle River watersheds)**

The Lang West Drainage Network is located within the upper Moose Jaw watershed, approximately 32 kilometres northwest of Weyburn, Saskatchewan. The Project includes 580 hectares centred around the Town of Lang, Saskatchewan.

The Saskatchewan WSA issued provincial approvals for the Lang West Drainage Network on March 29, 2018. The Lang West Project is described by the Saskatchewan WSA as consisting primarily of



drainage works that are already in existence, including 4 100 metres of drainage channels to be added to an existing 30 100 metres of existing unregulated drainage works. Five additional flow control structures are proposed. The adequate outlet of the network is located on the Moose Jaw River. The Saskatchewan WSA indicated that the Project is not anticipated to increase the diversion capacity of the network, which currently drains 2 264 054 cubic metres of water per year, as the primary intention is to bring the existing works into compliance.

### **Wascana Block A Drainage Network (Wascana Lake (Regina) and Qu'Appelle River watersheds)**

The Wascana Block A Drainage Network is located southwest of the hamlet of Kronau and approximately 25 kilometres southeast of Regina, Saskatchewan. The Wascana Block A Project is within the Wascana Creek watershed (part of the Qu'Appelle River watershed) and includes agricultural lands.

The Wascana Block A Project was provincially permitted in 2019, when Saskatchewan WSA issued approvals for construction and operation on March 31, 2019. The Wascana Block A Drainage Network consists almost entirely of drainage works that are already in existence, with 1 500 metres of drainage channels to be added to an existing 56 900 metres of existing drainage works to support installation of flow control structures. Project activities involve the installation of two new flow control structures (throttle culvert), and monitoring and maintenance of ditches and road allowances. Monitoring and maintenance requirements of the grassed ditches and road allowances utilized in the Project were included as part of the provincial approval permits. The Saskatchewan WSA indicated that the Project is not anticipated to increase the diversion capacity of the network, which currently drains 825 559 cubic metres of water per year, as the primary intention is to bring the existing works into compliance.

#### Saskatchewan River watershed

### **Brooksby Drainage Network (Carrot River watershed)**

The Brooksby Drainage Network is a largely established network including 170 kilometres of existing drainage works located approximately 30 kilometres northeast of the City of Melfort Saskatchewan near the community of Brooksby, Saskatchewan, within the Carrot River Watershed. The Project expansion is focused on erosion protection of the network outlet and includes very limited new activities and works. The Project includes approximately 4 978 hectares of lands under mixed grain and pasture use.

The Brooksby Project proposes construction of eight new flow controls and one new erosion control structure at the adequate outlet of the network on the Carrot River. Project activities involve construction of erosion and flow velocity controls including drop structures, and erosion repair and control measures to address erosion associated with peak flows. No new drainage channels and no additional drainage of wetlands are proposed as a part of the Project. Provincial permitting status for this Project is uncertain, and no date has been provided by the Saskatchewan WSA for their issuance of permits and approval for the Brooksby Drainage Network.

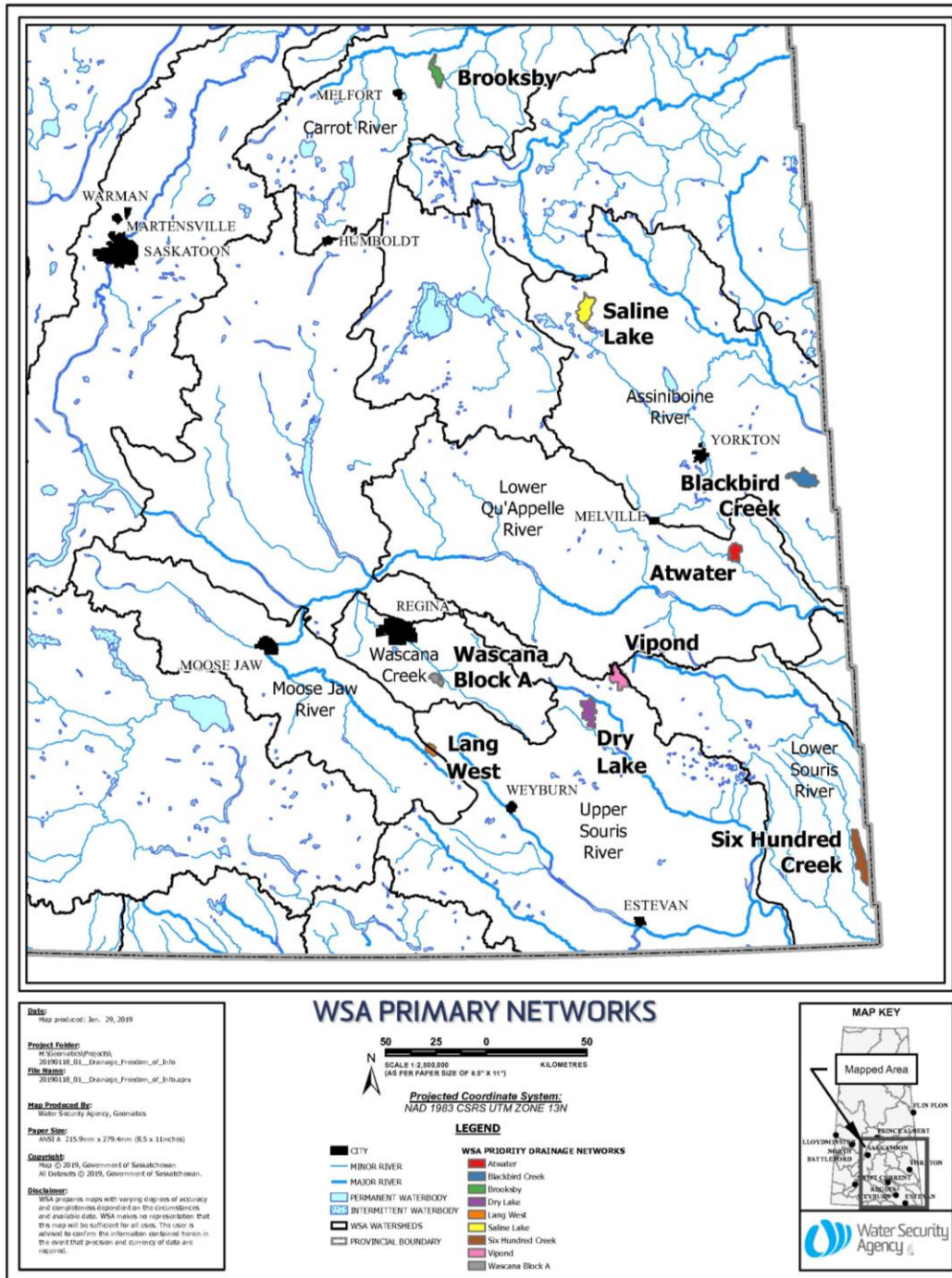


FIGURE 1: PROJECT LOCATIONS

(Source: Location map data provided by the Saskatchewan Water Security Agency. July 2019)





## Analysis of Designation Requests

### Authority to Designate the Projects

The *Physical Activities Regulations* (the Regulations) of the IAA identify types of projects that are designated projects. The Projects are expansions of existing structures for the diversion of water from one natural water body into another natural water body, are all understood to not meet the water diversion expansion thresholds of 50 percent or more and a total diversion capacity of 10 000 000 cubic metres per year or more described in the Regulations based on information provided by the Saskatchewan WSA on behalf of the proponents.

The carrying out of these Projects has not substantially begun and no federal authority has exercised a power or performed a duty or function that would permit the Projects to be carried out, in whole or in part.

The Atwater, Dry Lake, Wascana Block A, and Lang West Projects have received provincial *Approval to Construct and Operate Drainage Works* from the Saskatchewan WSA and thus are approved provincially to initiate work; however, based on information from the Saskatchewan WSA in August 2019, construction of new works described within these permits has not yet substantially begun.

Given this understanding of the Projects, the Agency is of the view that the Minister may consider designating these Projects pursuant to subsection 9(1) of the IAA.


### Potential Adverse Effects within Federal Jurisdiction

Effects within federal jurisdiction, as defined in section 2 of the IAA, identified by federal expert departments, Indigenous groups, and the requesting parties in comments to the Agency include potential adverse effects to fish and fish habitat, potential adverse effects to migratory birds, and downstream potential adverse effects to another province, federal lands, and to the physical and cultural heritage, current use of lands and resources for traditional purposes, and health, social, and economic conditions of Indigenous peoples.

Annexes I and II provide summary tables of the potential adverse effects, mitigation measures proposed by the proponent, and anticipated legislative mechanisms if the Projects proceed. Annex III provides the anticipated legislative mechanisms and regulatory processes if the Project proceeds. These include adherence to the *Migratory Birds Convention Act, 1994* related to migratory birds, consideration of fish and fish habitat under the *Fisheries Act*, the mitigation or prevention of potential water quality issues by application of standard mitigation measures and through project design and through the provincial regulatory processes. Should a *Fisheries Act* authorization be required, DFO may be required to consult and possibly accommodate with respect to potential adverse impacts on Aboriginal or Treaty rights under section 35 of the *Constitution Act, 1982*.

#### Fish and fish habitat

Requestors and Indigenous group input raised concerns about the impacts of the Projects to fish and to fish habitat. Fisheries and Oceans Canada (DFO) noted that the Projects may result in the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat and require authorization under the *Fisheries Act*. DFO indicated that additional information on impacts to fish, fish habitat, fish passage, water velocities, channel stability and mitigation measures would be required to fully



assess these proposed projects. The available information is not clear how the downstream water bodies will be impacted during construction or operation by the input of additional water. Velocity changes and fish passage have not been assessed in the available materials. For each Project, an application should be submitted to DFO to determine if a *Fisheries Act* authorization is needed.

Potential adverse effects to fish and fish habitat would be addressed through project design, the application of standard mitigation measures, through the required reviews and authorizations of the Projects by DFO, and through the provincial regulatory approvals process under Saskatchewan's *Water Security Agency Act*. Proponents are required to comply with the *Fisheries Act* and may require authorization under the *Fisheries Act*. Under a *Fisheries Act* authorization, effects to fish and fish habitat would be required to be mitigated by the proponent. There are no aquatic species at risk at or near the sites that would be impacted.

#### Migratory birds

Potential adverse effects to migratory birds (through disruption to individuals or nests during construction) would be addressed through required compliance with the general prohibitions of the *Migratory Birds Convention Act, 1994* and associated Regulations. Saskatchewan WSA regulatory approvals for the Projects would include conditions requiring non-disturbance buffers to be left around identified nests of migratory bird species at risk.


Environment and Climate Change Canada (ECCC) expressed concerns with project contributions to cumulative effects to migratory bird habitat in the region due to wetland loss associated with agricultural drainage activities, although no population level concerns were identified for birds listed under the *Migratory Birds Convention Act, 1994*.

#### Potential changes to the environment on federal lands, in another province, and outside Canada

Each of the drainage networks has the potential to cause changes to water quality (through sedimentation resulting from erosion and possibly nutrient loading) and quantity (flooding due to redirected water) within the lands and watercourses comprising the networks and downstream. Impacts to downstream water quality may also occur due to channel disturbance during construction. In some watersheds, these potential effects, of unknown severity, may occur in another province (Manitoba), on downstream federal lands, or in another country (United States of America), depending on the watershed.

The upper Souris River watershed (Vipond and Dry Lake) drains south into the United States of America and then northward again into Manitoba. The lower Souris River watershed (600 Creek), Qu'Appelle River watershed (Lang West, Wascana Block A, and Atwater), and Assiniboine watershed (Saline Lake and Blackbird Creek Projects) drain into Manitoba. However, in many cases the networks are distantly upstream and are not anticipated to lead to a significant adverse effect in another jurisdiction. Only Blackbird Creek and 600 Creek Projects are at or near the Saskatchewan-Manitoba border and the carrying out of these Projects may have effects in Manitoba. The original design of the 600 Creek Project identified an adequate outlet within Manitoba, but the Agency understands that this Project is under redesign to retract the adequate outlet to within Saskatchewan.

Manitoba Sustainable Development has indicated that unlicensed and uncontrolled drainage in Saskatchewan and its impacts on Manitoba's infrastructure and agricultural activities continues to be of



concern. The Manitoba boundary lies approximately six kilometres downstream of Blackbird Creek Project's adequate outlet, and Manitoba identified that interprovincial water quality and volume changes are anticipated from the Blackbird Creek Project. However, Manitoba noted that the Saskatchewan WSA's new regulatory process aims to mitigate the negative impacts of such drainage in the past and will continue their positive engagement with the WSA. Manitoba and the Saskatchewan WSA have a Memorandum of Understanding on Water Management that provides a forum for addressing interprovincial concerns on water management. The Agency is of the view that the existing provincial regulatory process and the continued engagement between Saskatchewan and Manitoba will address any potential adverse impacts resulting from the Projects in Manitoba.


Projects on the upper Souris River watershed (Vipond and Dry Lake) may contribute to downstream effects in the United States of America, although given the total volume of water diverted (each expansion is less than 300 000 cubic metres per year) and distance of these projects to the Canada – US border, the magnitude of these potential effects, if any, is undefined.

Federal lands in the vicinity of the Projects (Figure 2) include:

- reserve lands of Keeseekoose First Nation, within the Blackbird Creek Drainage Network. Keeseekoose First Nation is supportive of the Blackbird Creek Drainage Network;
- reserve lands of Gambler First Nation, on the Assiniboine River approximately 48 kilometres downstream of where Blackbird Creek enters the Assiniboine, and approximately 60 kilometres downstream of the Blackbird Creek Drainage Network;
- reserve lands of Ochapowace First Nation in lands surrounding and immediately adjacent to the Atwater Drainage Network;
- reserve lands of Cowessess First Nation, in lands surrounding and immediately adjacent to the Atwater Drainage Network, approximately four kilometres from the Vipond Drainage Network, approximately two kilometres from the Dry Lake Drainage Network, on Wascana Creek approximately 12 kilometres downstream of the Wascana Block A Drainage Network, and approximately seven kilometres from the Lang West Drainage Network;
- reserve lands of Carry the Kettle First Nation approximately two and half kilometres from the Vipond Drainage Network; and
- reserve lands of Piapot First Nation approximately 12 kilometres from the Wascana Block A Drainage Network, and on the Moose Jaw River approximately 20 kilometres and 30 kilometres downstream of the Lang West Drainage Network.

Regional First Nations have communicated the potential for undesired flooding or increased erosion on federal (reserve) lands downstream from the Projects. Given present uncertainty in the amount and velocity of water that would be increased downstream, it is unknown what the severity of potential impacts to these federal lands would be. The potential for adverse effects to downstream lands should be limited through project design and by application of standard mitigation measures required by conditions of provincial permits that would be issued by the Saskatchewan WSA. For example, flow controls are installed to reduce the flow rate to reduce erosion and to reduce the potential for downstream communities and landowners to experience flooding.





Impacts from environmental changes to the physical and cultural heritage and/or current use of lands and resources for traditional purposes of Indigenous peoples

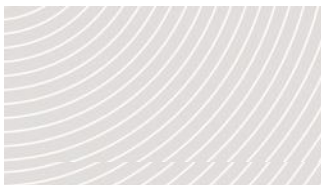
Indigenous groups noted the following potential adverse effects related to Project changes to the environment, including:

- Gambler First Nation (Treaty 4) identified that they are directly downstream of where the Blackbird Creek enters the Assiniboine River and that additional waters would adversely impact the community and their current use of lands through changes in water quality, flooding, siltation, erosion, and damage to fish and wildlife habitat.
- First Nations in Treaty 2 Territory identified that members of Treaty 2 First Nations rely heavily on the waters and riparian areas of the Assiniboine River watershed for current use of the lands for traditional purposes and maintenance of cultural heritage through these practices. Their concerns include:
  - increased sedimentation and contamination loading of the Assiniboine River due to the Blackbird Creek Project and historic drainage would reduce the area of land for use by Treaty 2 members of traditional purposes; and
  - wetland drainage and subsequent alteration of drained lands through agricultural practices would further reduce the amount or quality of fish and wildlife habitat of species that support traditional practices and limit availability of these resources.
- Kawacatoose First Nation (Treaty 4) described potential adverse impacts related to the current use of lands and resources for traditional purposes, including:
  - the potential loss, through drainage, of wetlands and vegetation resources harvested by Kawacatoose First Nation, such as plants and medicines;
  - loss of migratory bird and riparian habitat for other wildlife through wetland drainage and loss of other wildlife habitat through flooding by diverted waters that could reduce availability of species harvested for traditional purposes; and
  - potential loss of land or reduced access to unoccupied crown lands that support the current practice of rights, through flooding or water diversion.
- Piapot First Nation (Treaty 4) identified concerns with adverse effects of all nine Projects to wetlands and related effects to fish and fish habitat and migratory birds supporting current use and physical and cultural heritage in the Qu'Appelle River valley.
- Manitoba Metis Federation noted specific concerns about effects to fish and fish habitat through consolidation of wetlands and resulting stresses to freshwater fish populations relied upon for fishing and sustenance, wetland losses and regional effects to migratory birds and wildlife species relied upon as resources for trapping and hunting.

Change to the health, social, or economic conditions of the Indigenous peoples of Canada

Indigenous groups noted the following potential effects related to changes to Indigenous health, social or economic conditions:

- Gambler First Nation identified strong concern that the flooding of their agricultural and other lands would compromise the Nation's only source of income.
- Piapot First Nation identified concerns with adverse effects of all nine Projects to wetlands and related effects to fish and fish habitat and migratory birds supporting health, social, and economic



well-being in the Qu'Appelle River valley.

- The Manitoba Metis Federation expressed concern that in the original design, the 600 Creek drainage network adequate outlet was in Manitoba and concern that the consolidation of wetlands could cause an environmental stressor to freshwater fish populations. The Manitoba Metis Federation relies heavily on freshwater fish populations for sustenance purposes and want to ensure the sustainability of the fishery for future generations.

## Potential Adverse Direct or Incidental Effects

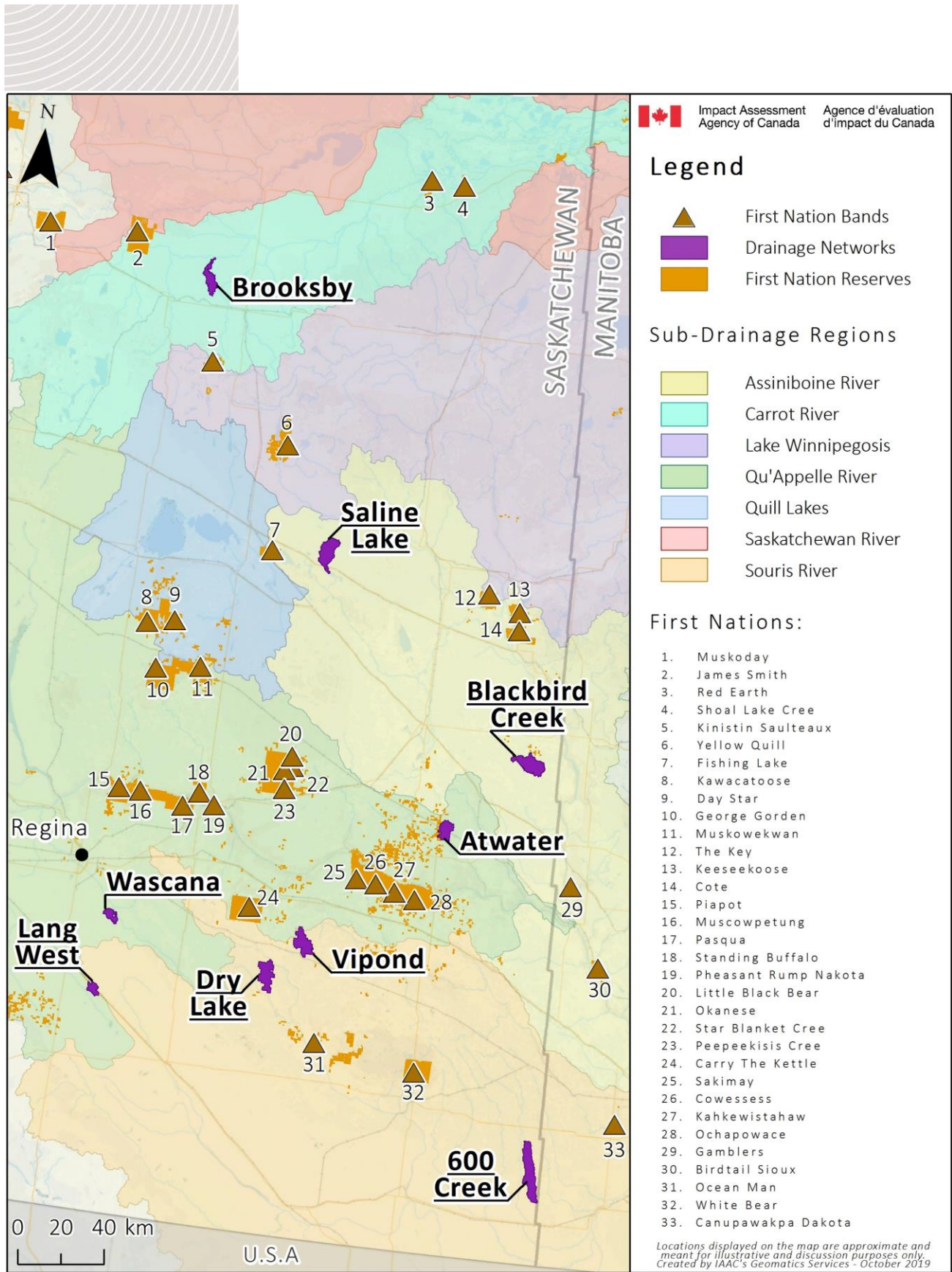
Direct or incidental effects refer to effects that are directly linked or necessarily incidental to a federal authority's exercise of a power or performance of a duty or function that would permit the carrying out, in whole or in part, of a project, or to a federal authority's provision of financial assistance to a person for the purpose of enabling that project to be carried out, in whole or in part.

The Projects, as described, may potentially require the exercise of the following federal powers, duties, or functions:

- authorization under the *Fisheries Act* by DFO.

DFO did not identify potential effects that should be considered as direct or incidental to the issuance of the *Fisheries Act* authorizations, as further information is required to determine if authorizations are required.





**FIGURE 2. DRAINAGE NETWORK PROJECT LOCATIONS WITHIN SUB-DRAINAGE WATERSHEDS AND RELATIVE LOCATIONS OF FIRST NATION RESERVE LANDS (FEDERAL LANDS).**



## PUBLIC CONCERNS AND INDIGENOUS CONCERNS

In addition to the concerns raised in the letters and petition requesting designation of the Projects sent to the Minister, the Agency is aware of information within the public domain that is associated with the proponents' applications to licence the Projects under Saskatchewan's *The Water Security Agency Act* and Regulations.

The public concerns expressed by the requestors and public that relate to areas of federal jurisdiction within the authority of subsection 9(1) of the IAA, include:


- adverse effects of the Projects to fish and fish habitat (including species at risk, although DFO confirmed that no aquatic species at risk are present in the project areas); migratory birds (including species at risk); federal lands downstream of the Projects; adverse effects to water quality and quantity in downstream waterbodies; and physical and cultural heritage, current use, health, social, and economic well-being of Indigenous peoples.

These concerns relate to adverse effects within federal jurisdiction and adverse direct or incidental effects, as defined in section 2 of the IAA. The concerns are described and addressed as above.

Concerns expressed that relate to issues outside of IAA section 9 authority are not considered in this analysis. The public concerns expressed by the requestors and public relate to areas outside of this IAA authority, include:

- lack of Crown consultation to date with respect to the Projects;
- absence of federal funding for regional water management-related flood and disaster relief, including downstream of the Projects in Manitoba;
- non-alignment with federal commitments to UN Goals for Sustainable Development (e.g., Goal #6 and the right to clean water as related to the Qu'Appelle River system);
- non-alignment with the 2016 PanCanadian Framework on Clean Growth and Climate Change as a result of Project changes to wetlands that contributing to greater climate instability;
- adverse effects through increased flood risks to communities and lands downstream of the Projects other than federal lands, and socio-economic costs to municipal governments in Manitoba associated with flooding and infrastructure damage downstream;
- uncertainty in effectiveness of interprovincial water management between Saskatchewan and Manitoba, including concerns regarding lack of public engagement and Crown consultation regarding flood risk and water quality management;
- uncertainty in mitigation effectiveness for projects approved under the provincial Agricultural Water Management Strategy;
- adverse effects to groundwater downstream of projects (drinking water wells);
- adverse effects to wetlands, and cumulative loss of wetlands and wetland functions (e.g., protection against flooding and drought, biodiversity, greenhouse gas (GHG) sequestration) in a region of historic wetland loss;
- adverse effects to endangered and threatened species and their habitats; and
- adverse effects to area plant communities through spread of noxious weeds to downstream watercourses and riparian areas.





The Agency is of the view that these concerns are expected to be partially addressed within Saskatchewan and Manitoba through the application of standard mitigation measures and existing provincial legislative and regulatory mechanisms (such as in Annex III).

Requestors and Indigenous Nations also identified concerns with the Saskatchewan WSA estimates of diversion capacity, and on July 8, 2019, Manitoba Sustainable Development advised the Agency to review the proposed diversion volume of the Blackbird Creek Project against the thresholds of the Regulations, noting that the total potential operating diversion capacity of the network appeared to exceed the thresholds of the Regulations. The Agency considered the uncertainty in the publicly available information describing the proposed total diversion capacity of the network as a structure for the diversion of water and understood that the Blackbird Creek Project would be designed to constrict daily flow rates to 3.2 cubic metres per second, which is below the existing peak instantaneous flow rate observed in Blackbird Creek with current unregulated drainage activity.

### Potential adverse impacts to section 35 rights of Indigenous peoples

The Projects are within the territories of Treaty 2, Treaty 4 and Treaty 6 and the Metis homeland including Metis Nation—Saskatchewan Eastern Regions IIa, II, III and Manitoba Metis Federation.

The Agency is of the view that there is potential for the Projects to cause adverse impacts on the rights that are recognized and affirmed by section 35 of the *Constitution Act*. The Agency, in consideration of information received from DFO, ECCC, and the Saskatchewan WSA, understands that potential impacts to areas of federal jurisdiction such as fish and fish habitat and migratory birds are mitigated through standard mitigation and existing legislative and regulatory processes.

In conducting this analysis, the Agency considered potential impacts to Metis including Metis Nation—Saskatchewan Western Region III and Eastern Regions II, IIa, and III, and Manitoba Metis Federation; First Nations in Treaty 4, including Carry the Kettle First Nation, Cote First Nation, Cowessess First Nation, Day Star First Nation, Fishing Lake First Nation, George Gordon First Nation, Kahkewistahaw First Nation, Kawacatoose First Nation, Keeseekoosewun First Nation, Kinistin Salteaux Nation, Little Black Bear First Nation, Muskowekwan First Nation, Muscowpung First Nation, Ocean Man First Nation, Ochapowace First Nation, Okanese First Nation, Pasqua First Nation #79, Peepeekisis Cree Nation, Pheasant Rump First Nation, Piapot First Nation, Standing Buffalo First Nation, Star Blanket Cree Nation, The Key First Nation, Tootinaowaziibeeng First Nation, Waywayseecappo First Nation, White Bear First Nation, Yellow Quill First Nation, and Zagime Anishinabek (Sakimay First Nations); First Nations in Treaty 6, including Flying Dust First Nation; First Nations in Treaty 2, including Gamblers First Nation and First Nations in Treaty 2 Territory; and Non-treaty First Nations, including Birdtail Sioux First Nation, Canupawakpa Dakota First Nation, and Sioux Valley Dakota Nation.

Indigenous groups who provided views regarding potential adverse effects and identified anticipated impacts to rights resulting from the Blackbird Creek Project include Cowessess First Nation, Gambler First Nation, Zagime Anishinabek, Kawacatoose First Nation, First Nations of Treaty 2 Territory, Piapot First Nation, and Manitoba Metis Federation. Kawacatoose First Nation, Piapot First Nation, and Manitoba Metis Federation also provided views regarding effects and identified anticipated impacts to rights as a result of all of the nine Projects.



## Concerns Expressed

- Keeseekoose First Nation expressed support for the Blackbird Creek Project, as their reserve lands are within the network and they would benefit from the network.
- Cowessess First Nation expressed ongoing concerns with effects of the Blackbird Creek Project to water quality, water retention, loss of wetlands, and related these effects to concerns regarding current use. Cowessess First Nation expressed concerns with effects of the Blackbird Creek Project and related impacts to section 35 rights to hunt and fish and asserted inherent rights to water protection and stewardship.
- Zagime Anishnabek (Sakimay First Nations) noted that the Blackbird Creek Project is in an area used regularly by hunters from Zagime Anishnabek and requested information regarding opportunities for land and resource users to coordinate a meeting to review mapping of the Project area. The Agency provided this correspondence to the Saskatchewan WSA.
- First Nations of Treaty 2 Territory expressed concern related to anticipated adverse effects and reduction in the area of lands in which Treaty 2 members can practice traditional land uses in the Assiniboine River, due to cumulative impacts of existing and proposed projects.
- Kawacatoose First Nation described all of the Projects as having a high likelihood to impact Kawacatoose First Nation's section 35 rights and that potential impacts to Kawacatoose First Nation section 35 rights were not considered or accommodated in provincial reviews. The potential adverse impacts related to their exercise of rights include:
  - loss of unoccupied crown land available for the practice of section 35 rights. Provincial crown lands available to support the practice of section 35 rights will be used for each of the drainage networks adequate outlet;
  - and potential adverse impacts including downstream flooding, water quality contamination by sediments, erosion, nutrients and salinity, wetlands loss, loss of wildlife and their habitats, and loss of access to lands. Specifically the Wascana Block A and Saline Lake Projects, as they are in proximity to Kawacatoose First Nation core use by areas.
- Piapot First Nation described concerns relating to the cumulative effects of agricultural drainage to the Qu'Appelle River watershed, specifically expressing concern with adverse effects anticipated from the additive flows contributed from the Lang West, Wascana Block A, and Atwater Projects, including potential flooding of reserve lands, deterioration of water quality, degradation of riparian ecosystems, and adverse effects to culture. Piapot First Nation currently has a claim before the Specific Claims Branch of Crown-Indigenous Relations and Northern Affairs Canada <sup>1</sup> regarding the historical effects of water management by the Saskatchewan WSA and predecessors on the Qu'Appelle River. Piapot First Nation expressed concern with the lack of provincial dialogue with the First Nation regarding the Projects and the lack of site-specific studies, including traditional land use studies.
- Manitoba Metis Federation described concerns with adverse effects of all nine Projects to lands, waters, and resources relied upon to exercise section 35 rights in the Metis Homeland (specific reference made to 600 Creek).

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<sup>1</sup> Filed June 12, 2019



### Potential adverse effects and mitigations

Potential adverse effects within federal jurisdiction, as described in Annexes I and II, could impact section 35 rights, as the adequate outlets for the nine agricultural drainage network projects release onto provincial crown lands that are available for the practice of Aboriginal and Treaty Rights (e.g. Saline Lake, the natural waterbody that is the adequate outlet of the Saline Lake Project and Carrot River, the natural waterbody that is the adequate outlet of the Brooksby Project, are on provincial Crown land). The potential for loss of available land is unknown.

Within the networks, the Agency understands that expansion of the nine agricultural drainage network projects would occur primarily on privately owned lands used for agricultural purposes. For some agricultural drainage network projects the Saskatchewan WSA described that provincial Crown land within the project are small isolated, unoccupied parcels to which there is no public access as they are surrounded by private land. In some instances, the bed and shore of the waterbody are privately owned (e.g. much of the bed and shore of the Blackbird Creek is privately owned).

Land-based changes associated with the Projects are anticipated by the Saskatchewan WSA to be localized as the Projects are designed and approved by the Saskatchewan WSA to limit environmental effects to provincial Crown lands at the network's point of discharge. Watercourse-based changes that would result from the Projects are expected in receiving waterbodies at each network outlet; however, the downstream spatial extent and magnitude of effects is uncertain.

For the Blackbird Creek Project, land-based changes are anticipated to include lands held within the Project area by Keeseekoose First Nation. Keeseekoose First Nation has expressed to the Agency that they are in support of the Project and have provided the proponent with land agreements required for provincial review of the Project by the Saskatchewan WSA.

### Regional and strategic assessments

There are no regional or strategic assessments pursuant to sections 92, 93 or 95 of the IAA that are relevant to any of the Projects.

### Conclusion

In consideration of information provided by the Water Security Agency (on behalf of the proponents), the provinces, federal authorities, Indigenous groups and the public, the Agency is of the view that the potential for adverse effects, as described in subsection 9(1) of the IAA, and public concerns related to those effects would be limited through project design, the application of standard mitigation measures and through existing legislative mechanisms (Annexes I and II).

To inform its analysis, the Agency sought and received input from the proponent, federal authorities, Indigenous groups, and provincial ministries. In addition, the Agency considered the concerns from the requesters, information in the petition sent to the Minister, and comments provided to the Agency by the public. Further, the Agency considered the potential for the nine agricultural drainage network projects to cause adverse impacts on the rights that are recognized and affirmed by section 35.





## ANNEX I





[Annex I: Analysis Summary Table – Saskatchewan Drainage Network Projects Common Concerns](#)

This summary table includes information that is shared across all nine agricultural drainage network projects.

Analysis Summary:	Saskatchewan Drainage Network Projects	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p><b>Proponent</b></p> <p>Indirect impacts of all nine Saskatchewan agricultural drainage network projects include sedimentation and nutrient loading related to erosion and peak flows.</p> <p>Mitigations for indirect impacts include flow controls to reduce peak flows to mitigate erosion impacts and standard conditions to address sediment and erosion. Saskatchewan drainage approvals may include standard conditions in the Aquatic Habitat Protection Permitting (AHPP) to address sedimentation and erosion associated with Construction and Operations, authorized under the Saskatchewan <i>Water Security Agency Act</i>. Standard conditions include sediment and erosion control measures, retention of existing vegetation, keeping spoil materials away from drainages, isolating work area if constructing during wet conditions, ensuring permanent vegetation and erosion controls at outlets, and ongoing maintenance.</p> <p>Direct impacts include alteration of fish habitat through the change in configuration or removal of materials particularly at the point of adequate outlet and/or in areas where natural waterways are proposed to include channel alteration. An AHPP process must be completed to address direct impacts to fish habitat related to channelization/channel alteration and work within a second order stream (any named stream, creek, etc.). For channelization to be approved, Saskatchewan agricultural drainage network project applications must demonstrate rationale for extent of disturbance, maintain natural functions of waterway, and incorporate natural stream design features.</p>	<p>The Saskatchewan Water Security Agency (WSA)'s drainage regulatory program considers the potential effects of drainage activities. The Saskatchewan WSA is responsible to protect against direct impacts to fish habitat under Saskatchewan's <i>Environmental Management and Protection Act, 2010</i> (EMPA 2010) and indirect impacts to fish and fish habitat related to water quality effects (sediment, nutrient loading, salinity, etc.) under the provincial Drainage Regulations.</p> <p>In providing approval for the drainage networks, the Saskatchewan WSA conducts a risk analysis, which screens the networks for direct and indirect impacts to fish and fish habitat and integrates the AHPP process under the <i>Water Security Agency Act</i> and <i>Water Security Agency Regulations</i>, with the EMPA 2010. Risk analysis is conducted through the evaluation of extent of channel alteration, screening for second order streams, and erosion potential.</p> <p>The Saskatchewan WSA's Channelization Mitigation Policy applies to channelization/channel alteration or a second order streams. The Saskatchewan WSA may request a proponent report that details mitigation for channelization impacts or impacts to fish habitat. The Saskatchewan WSA can deny the application, if the design or mitigation cannot sufficiently address the habitat impacts of the application.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align regulatory process with the provincial Fisheries Plan.</p>



Analysis Summary:	Saskatchewan Drainage Network Projects	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
	<p><b>Federal and Provincial Advice</b></p> <p>Fisheries and Oceans Canada (DFO) advised that, as proposed, all nine Saskatchewan agricultural drainage network projects may result in death of fish and that the proponent would need to identify whether authorization would be required under the <i>Fisheries Act</i>. DFO noted that it is not clear how the downstream water bodies would be impacted during construction or operation by the input of additional water. Additionally, changes to velocity and fish passage have not been assessed.</p> <p><b>Indigenous Group Concerns</b></p> <p>Piapot First Nation, Manitoba Metis Federation, and Kawacatoose First Nation identified concerns with adverse effects of all nine Projects to wetlands and related effects to fish and fish habitat.</p>	<p>Compliance is required with the federal <i>Fisheries Act</i>. When it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat, an authorization with conditions from the Minister of Fisheries and Oceans may be required.</p>
<p>A change to aquatic species other than fish, as defined in subsection 2(1) of the <i>Species at Risk Act</i></p>	<p>No adverse effects to marine plants are anticipated, as there is no interaction between any of the nine Saskatchewan agricultural drainage network projects and the marine environment.</p>	<p>DFO advised that no SARA-listed aquatic species are present in the Project watershed and that a permit under the <i>Species at Risk Act</i> (SARA) would not be required.</p>
<p>A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i> (MBCA)</p>	<p><b>Federal and Provincial Advice</b></p> <p>Potential effects to migratory birds exist as work during the breeding season may disturb or destroy a nest, and activities such as clearing of vegetation, draining and flooding of lands may inadvertently affect migratory birds.</p> <p>Saskatchewan WSA screens for and considers migratory birds in the regulatory responses. If significant migratory bird sites are identified, appropriate timing restrictions and setback distances (Saskatchewan's Activity Restriction Guidelines for Sensitive Species) may be provided as recommendations or conditions of the permit. Set back distances and other conditions are applied to any species at risk that are also included under the <i>Migratory Birds Convention Act, 1994</i>. If a species at risk is identified, it</p>	<p>The <i>Migratory Birds Convention Act, 1994</i>, prohibits killing, harming, or collecting adults, young, and eggs of migratory birds and screens and provides regulatory responses for effects to migratory birds.</p> <p>The Saskatchewan WSA risk analysis considers impacts related to migratory birds and identifies appropriate mitigation requirements, a compliance priority, and an enforcement response. Risk considers flooding, water quality, and habitat impact relative to the extent of surface drainage, erosion susceptibility, and channel alteration, as well as local basin vulnerability.</p>



Analysis Summary:	Saskatchewan Drainage Network Projects	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
	<p>triggers review, consideration, and direction from the Saskatchewan WSA and a variety of regulatory mechanisms could be applied (e.g. declining the application, prohibitions or permit conditions restricting timing, location, maintenance, and or/construction of new works).</p>	<p>For migratory birds that are listed under the <i>Species at Risk Act</i>, the Government of Saskatchewan Activity Restriction Guideline will be included as a condition of the permit.</p> <p>The Saskatchewan WSA committed to continuing to work with the Saskatchewan Ministry of Environment to incorporate new data for species at risk location maps.</p>
<p>A change to the environment that would occur on federal lands</p>	<p><b>Proponent</b></p> <p>Potential environmental effects to federal lands downstream of all nine Saskatchewan agricultural drainage network projects are anticipated to be localized and mitigated by design features that would control erosion and sedimentation (effects to water quality) at the adequate outlets of the networks.</p>	<p>Licences, permits and approvals required for the Project pursuant to the Saskatchewan <i>Water Security Agency Act</i>, Water Security Agency Regulations, and the Agricultural Water Management Strategy set requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</p> <p>Under The Water Security Agency Regulations, the Saskatchewan WSA must consider the current and future impacts, including predicted future cumulative impacts, of the drainage works on the property of others; hydrology or water quality; fish and wildlife habitat; and any other factor the corporation considers relevant.</p> <p>The Saskatchewan WSA's Drainage Application and Options for Obtaining Land Control on First Nations Land Policy requires that proponents for Projects that include reserve land or land held by a First Nation through a holding company, obtain a Band Council Resolution in support of the Project or a signed document authorized under a land code.</p>
<p>A change to the environment that would occur in a province other than the one in which the</p>	<p>Based on proximity to the provincial or federal border, some networks have the potential for interjurisdictional effects, noted in Annex III.</p>	<p>Not applicable to all networks.</p>



Analysis Summary:	Saskatchewan Drainage Network Projects	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
<p>project is being carried out or outside Canada</p>	<p><b>Proponent</b></p> <p>No effects are anticipated outside of Saskatchewan.</p> <p><b>Federal and Provincial Advice</b></p> <p>DFO advised that downstream effects from additional water are unclear during construction and operation.</p>	
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on physical and cultural heritage</p>	<p><b>Proponent</b></p> <p>The Saskatchewan WSA does not expect to see flooding impacts in average runoff events beyond the adequate outlets of any of the nine Saskatchewan agricultural drainage network projects once all the flow mitigation is in place.</p> <p><b>Federal and Provincial Advice</b></p> <p>Each network's adequate outlet is understood to be on provincial Crown land as it is the point along the Crown-owned waterway/waterbody where the peak flows are generated naturally and by existing and proposed drainage works in a 1:5 peak mean daily runoff event will remain contained within the bed and shore of that Crown-owned waterway/waterbody.</p> <p><b>Indigenous Group Concerns</b></p> <p>For all nine Saskatchewan agricultural drainage network projects, Kawacatoose First Nation identified anticipated project effects including downstream flooding, water quality contamination (sediment, erosion, nutrient and salinity), wetland loss, loss of wildlife or wildlife habitat, loss of access to unoccupied Crown lands that would impact Kawacatoose First Nation's physical and cultural heritage via impacts to their right to hunt, fish, trap and gather plants and medicines and to participate in cultural and ceremonial activities.</p> <p>For all nine Saskatchewan agricultural drainage network projects, Manitoba Metis Federation identified concerns regarding project effects to lands,</p>	<p>The Saskatchewan Government's First Nation and Métis Consultation Policy Framework (CPF) sets out the provincial government's commitment to fulfilling its legal duty to consult and accommodate First Nation and Métis communities in advance of decisions or actions that have the potential to adversely impact the exercise of:</p> <ul style="list-style-type: none"> <li>• Aboriginal and Treaty rights such as the right to hunt, fish and trap on unoccupied Crown land and other land to which a community has a right-of-access for these purposes; and</li> <li>• Traditional uses of land and resources such as the gathering of plants for food and medicinal purposes and carrying out ceremonial and spiritual observances and practices on unoccupied Crown land and other land to which a community has a right of access for these purposes.</li> </ul> <p>Should a <i>Fisheries Act</i> Authorization be required, DFO may be required to address Section 35 <i>Constitution Act</i>, 1982 duty to consult obligations and possibly accommodate with respect to potential adverse impacts on Aboriginal or Treaty rights. This may require DFO to consult with potentially affected Aboriginal groups to discuss potential impacts and means to address (accommodate) them.</p>



Analysis Summary:	Saskatchewan Drainage Network Projects	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
	<p>waters, and resources important to their physical and cultural heritage through their exercise of section 35 rights and to maintain their distinct Metis traditions and connection to their traditional territory.</p> <p>For all nine Saskatchewan agricultural drainage network projects, Piapot First Nation noted concern with the lack of consideration of effects to physical and cultural heritage of aboriginal peoples by the Saskatchewan WSA's review. Piapot First Nation commented on the importance of river sites (and agency for their management) to their cultural reproduction of lifestyles, ways of living, value systems, traditions and beliefs.</p>	
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on current use of lands and resources for traditional purposes</p>	<p><b>Proponent</b></p> <p>Limited impact on the current use of lands and resources for traditional purposes is anticipated within all nine Saskatchewan agricultural drainage network project properties.</p> <p><b>Indigenous Group Concerns</b></p> <p>For all nine Saskatchewan agricultural drainage network projects, Manitoba Metis Federation identified potential impacts to lands, waters and resources supporting Métis section 35 harvesting rights to hunt, fish, trap, and gather plants.</p> <p>For all nine Saskatchewan agricultural drainage network projects, Kawacatoose First Nation identified anticipated Project effects including downstream flooding, water quality contamination (sediment, erosion, nutrient and salinity), wetland loss, loss of wildlife or wildlife habitat, loss of access to unoccupied Crown lands which would impact Kawacatoose First Nation's exercise of its section 35 rights to hunt, fish, trap and gather plants and medicines and to participate in cultural and ceremonial activities.</p> <p>For all nine Saskatchewan agricultural drainage network projects, Piapot First Nation identified concerns with adverse effects of the Projects to</p>	<p>The Saskatchewan WSA indicated that Project-related changes to lands and resources may be limited at the nearest point of perception receptors (e.g. accessible Crown lands and lands within traditional territories to which Project downstream effects may extend) by Saskatchewan permit conditions governing operation of the proposed drainage network.</p> <p>Should a <i>Fisheries Act</i> Authorization be required, DFO may be required to address Section 35 <i>Constitution Act</i>, 1982 duty to consult obligations and possibly accommodate with respect to potential adverse impacts on Aboriginal or Treaty rights. This may require DFO to consult with potentially affected Aboriginal groups to discuss potential impacts and means to address (accommodate) them.</p>



Analysis Summary:	Saskatchewan Drainage Network Projects	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
	wetlands and related effects to fish and fish habitat and migratory birds and related impacts to current use, and expressed concern with the lack of provincial dialogue and site-specific studies including traditional land use studies with the First Nation regarding the Projects.	
With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on any structure, site, or thing that is of historical, archaeological, paleontological or architectural significance	<p><b>Proponent</b></p> <p>Potential effects of all nine Saskatchewan agricultural drainage network projects to structures, sites or things of historical, archaeological, paleontological or architectural significance within the network boundary are limited.</p> <p><b>Indigenous Group Concerns</b></p> <p>For all nine Saskatchewan agricultural drainage network projects, Piapot First Nation noted concern with the lack of archaeological records or other sources of information in the shared Project information from the Saskatchewan WSA and recommended a review of the archaeological record.</p>	<p>The Saskatchewan WSA is integrating the results from the Heritage Screening to the Water Security Agency Risk Framework Worksheet.</p> <p>The Saskatchewan WSA conducts a risk assessment on each drainage application, to determine if the existing and/or proposed drainage are likely to adversely impact heritage resources, which includes historic sites and structures, archaeological sites, paleontological localities, and other sites of cultural or scientific value. Approval of the network will not be given until it is determined if the existing/proposed drainage will affect the heritage resources. Proponents are to determine the redesign of the drainage works so that there is no impact on the heritage resources.</p>
Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada	<p><b>Indigenous Group Concerns</b></p> <p>For all nine Saskatchewan agricultural drainage network projects, Kawacatoose First Nation expressed concern that potential impacts to well-being were not considered in the provincial review, including impacts to health and well-being through changes to water quality, water quantity, vegetation and wildlife. Kawacatoose First Nation also expressed concern that there was no assessment of the potential impacts to economic interests of the Nation such as Nation hemp farming activities, or consideration of increased flood risks and related potential for damage to housing and community infrastructure.</p>	





<b>Analysis Summary:</b>	<b>Saskatchewan Drainage Network Projects</b>	
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
Adverse direct or incidental effects	DFO did not identify any adverse direct or incidental effects that may be associated with a <i>Fisheries Act</i> authorization, if required.	Not applicable.



## ANNEX II



[Annex II-A: Analysis Summary Table – Blackbird Creek Project Specific Concerns](#)

Annex I complements Annex II and includes effects and mitigation that are either specific to this network or are shared by only a subset of the nine Saskatchewan agricultural drainage network projects. Additional detail on relevant provincial authorizations is provided in Annex III.

Analysis Summary:	Blackbird Creek Project	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p><b>Proponent</b></p> <p>Saskatchewan Water Security Agency (WSA) identified fish (and therefore fish habitat) are likely to be present.</p> <p><b>Indigenous Group Concerns</b></p> <p>Cowessess First Nation, First Nations in Treaty 2 Territory, Gambler First Nation, Kawacatoose First Nation, Manitoba Metis Federation, noted concerns about the loss and alteration of fish and wildlife habitat, in areas downstream of the Blackbird Creek Project.</p> <p><b>Public Concerns</b></p> <p>Ducks Unlimited Canada noted that impacts to fish and fish habitat in the Assiniboine River are expected to be significant due to a 200 percent increase in instantaneous peak flow, which in turn increases turbidity, erosion, and sediment flow, factors that affect fish movement, lifecycle, and habitat.</p> <p>Other public comments noted the potential for additional water flow from the Project to cause erosion and subsequent release of fine sediment adversely affecting fishing in the area; adverse effects of wetland drainage on the aquatic ecosystem including fish habitat; concerns about loss of protection against flooding and drought as a result of removal of wetlands through drainage projects.</p> <p>Public concerns were expressed regarding the lack of referenced scientific data in proponent information, and concerns regarding downstream</p>	<p>Saskatchewan’s <i>Water Security Agency Act</i> and associated <i>Water Security Agency Regulations</i> apply and are integrated with Aquatic Habitat Protection Permitting under the <i>Environmental Management and Protection Act, 2010</i> (EMPA 2010) to consider direct and indirect impacts to fish and fish habitat.</p> <p>Saskatchewan WSA’s Channelization Mitigation Policy may apply and considers when a project includes channelization/channel alteration or a second order stream. Pursuant to this policy, the Saskatchewan WSA considers how impacts from the channelization or impacts to fish habitat will be mitigated.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align with and support the provincial Fisheries Plan.</p> <p>The proponent is required comply with the <i>Fisheries Act</i> and an authorization that will have conditions may be required when it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat.</p> <p><i>Canada-Saskatchewan Protocol Agreement on Water</i> is a collaborative approach to communicate and coordinate matters of management of quantity, quality and rate of flow of water as they relate to fisheries, fish habitat, and endangered or species at risk.</p>



Analysis Summary:	Blackbird Creek Project	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
	environmental effects of the Project including changes to hydrology, hydrogeology, in the Blackbird Creek and Assiniboine River.	
A change to aquatic species other than fish, as defined in subsection 2(1) of the <i>Species at Risk Act</i>	<p><b>Public Concerns</b></p> <p>Ducks Unlimited expressed concerns about the adverse impacts to the SARA listed aquatic species in the project watershed.</p> <p><b>Federal Authorities</b></p> <p>DFO confirmed that there are no aquatic species at risk in the areas of the Projects and no permit under the <i>Species at Risk Act</i> (SARA) is required.</p>	<i>Species at Risk Act</i>
A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i> (MBCA)	<p><b>Federal and Provincial Advice</b></p> <p>ECCC described the Project area to have low to moderate migratory bird habitat potential, as the area is predominantly cultivated but still has a number of wetlands impacted by existing development.</p> <p>ECCC noted that the drainage of wetlands and associated clearing of trees and shrubs (which serve as breeding (nesting) habitats for migratory birds) may result in harm or disturb migratory birds and their nests.</p> <p><b>Indigenous Group Concerns</b></p> <p>Manitoba Metis Federation noted concerns with the Project's loss of wetlands and impacts to migratory bird habitat, given the Manitoba Metis Community's reliance on productive wetlands supporting hunted migratory birds.</p> <p><b>Public Concerns</b></p> <p>Ducks Unlimited Canada noted that the Blackbird Creek Project would contribute to regional wetland changes and there may be significant cumulative impacts on migratory birds as well as breeding waterfowl.</p>	<p>The MBCA prohibits killing, harming, or collecting adults, young, and eggs of migratory birds and screens and provides regulatory responses for effects to migratory birds.</p> <p>The Saskatchewan WSA indicated that it conducts a risk analysis to consider impacts related to migratory birds and identifies appropriate mitigation requirements and enforcement responses.</p> <p>For migratory birds that are listed under the <i>Species at Risk Act</i>, the Government of Saskatchewan Activity Restriction Guidelines for Sensitive Species setback distances will be included as a permit condition.</p> <p>The Saskatchewan WSA works with the Saskatchewan Ministry of Environment to incorporate new data for species at risk locations.</p>



Analysis Summary:	Blackbird Creek Project	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
<p>A change to the environment that would occur on federal lands</p>	<p>Gambler First Nation reserve lands are located in Manitoba, approximately 60 kilometres downstream of the Blackbird Creek Project on the Assiniboine River.</p> <p><b>Proponent</b></p> <p>The Blackbird Creek Project area is partially located on Keeseekoose Reserve 66-CA-03.</p> <p><b>Indigenous Group Concerns</b></p> <p>Keeseekoose First Nation advised the Agency that it is supportive of the Blackbird Creek Project and did not identify environmental concerns. No adverse environmental effects on federal lands within the Project are anticipated, given expressed support for the Blackbird Creek Project from the Keeseekoose First Nation.</p> <p>Gambler First Nation noted downstream concerns regarding the potential for the flooding of the First Nation's farmland (primary source of income for the Nation).</p> <p>Manitoba Metis Federation noted concern with the loss of lands upon which section 35 rights could be practiced through wetland consolidation.</p> <p><b>Public Concerns</b></p> <p>Ducks Unlimited Canada noted that potential effects exist to Indigenous people living along the Assiniboine River, including Gambler's First Nation and Birdtail Creek First Nation.</p> <p>Public comments received by the Agency noted concerns regarding potential flooding and other impacts on federal lands located the surrounding environment in regards to the Blackbird Creek Project.</p>	<p>Licences, permits and approvals required for the Project pursuant to the <i>Saskatchewan Water Security Agency Act</i>, Water Security Agency Regulations, and Agricultural Water Management Strategy sets requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</p> <p>The Saskatchewan WSA's Drainage Application and Options for Obtaining Land Control on First Nations Land Policy requires that, for Projects that include reserve land or land held by a First Nation, proponents either obtain a Band Council Resolution in support of the Project or a signed document authorized under a land code.</p>



Analysis Summary:	Blackbird Creek Project	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
<p>A change to the environment that would occur in a province other than the one in which the project is being carried out or outside Canada</p>	<p>The Blackbird Project is 6 kilometres from the Saskatchewan-Manitoba border and drains to the Assiniboine River in Manitoba.</p> <p><b>Federal and Provincial Advice</b></p> <p>DFO advised that downstream effects from additional water are unclear during construction and operation.</p> <p>Manitoba Sustainable Development identified potential effects to water quality, water quantity, and habitat from increased nutrient export and erosion from Saskatchewan watersheds into Manitoba due to a predicted large increase in volume as a result of the Project. The Saskatchewan WSA does not specify mitigation measures for nutrient export and full extent of flow reduction and retention.</p> <p><b>Public Concerns</b></p> <p>Public comments received by the Agency noted concerns regarding potential flooding, reduced biodiversity, changes to downstream ecosystems in Manitoba and impacts to municipal development and infrastructure in Manitoba.</p> <p>Public concerns were expressed regarding a past unlicensed and uncontrolled drainage project in this area of Saskatchewan, which has affected water quality and quantity, flood risks and erosion for landowners in Manitoba.</p> <p>Ducks Unlimited Canada noted concern about the direct effects of increased total water flow volume into Manitoba, increasing the risk of overflowing the Shellmouth Dam and the flooding of the farmland downstream within the Upper Assiniboine River watershed.</p>	<p><i>Saskatchewan – Manitoba Memorandum of Understanding (MOU) Respecting Water Management</i> exists to facilitate a cooperative and coordinated approach to mitigate flooding and drought, to protect and improve water quality and aquatic ecosystem health, and to reduce nutrients in rivers and lakes. Under the MOU, the provinces will work together to identify and address water management issues that arise transboundary watersheds as related to drainage. The MOU directs engagement with groups [unspecified] in cross border transboundary watershed planning.</p> <p>The <i>Master Agreement on Apportionment</i> defines the division and allocation of interprovincial streams, provides water quality objects at provincial boundaries, and promotes cooperation in interprovincial water management. This was signed by the Alberta, Saskatchewan, Manitoba and the Government of Canada.</p>



Analysis Summary:	Blackbird Creek Project	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on physical and cultural heritage</p>	<p><b>Proponent</b></p> <p>The Saskatchewan WSA describes provincial Crown lands in the drainage network as limited and inaccessible.</p> <p><b>Indigenous Group Concerns</b></p> <p>Indigenous groups identified concerns regarding anticipated adverse environmental effects from the Blackbird Creek Project to the culturally important Assiniboine River watershed including increased nutrient and sediment loading in Assiniboine River, increased invasive species, loss of river frontage, degradation of water quality, trespass on reserve lands, removal of fish and wildlife habitat, and removal of carbon sequestering mechanisms. Blackbird Creek is a contributing sub watershed within the Assiniboine River watershed.</p> <p>First Nations of Treaty 2 Territory described the relationship of environmental effects to the exercise of Treaty rights, stating that members use the Assiniboine River for practice of traditional land uses and Treaty rights (aspects of culture and lifestyle).</p> <p><b>Public Concerns</b></p> <p>Public raised concerns about the lack of consultation with the public including Indigenous People.</p>	<p>The Saskatchewan Government's First Nation and Metis Consultation Policy Framework is the provincial government's commitment to fulfilling its legal duty to consult and accommodate First Nation and Métis communities in advance of decisions or actions that have the potential to adversely impact the exercise of:</p> <ul style="list-style-type: none"> <li>• Aboriginal and Treaty rights such as the right to hunt, fish and trap on unoccupied Crown land and other land to which a community has a right-of-access for these purposes; and</li> <li>• Traditional uses of land and resources such as the gathering of plants for food and medicinal purposes and carrying out ceremonial and spiritual observances and practices on unoccupied Crown land and other land to which a community has a right of access for these purposes.</li> </ul> <p>The Saskatchewan WSA completed pre-consultation assessments to consider the potential for impact and related Duty to Consult and found they had no Duty. The pre-consultation assessment included a review of 1) any changes on the ground associated with the provincial formation of the Blackbird Creek Conservation and Development Area Authority/drainage approval; 2) any limitations to right-of-access land within the drainage network boundary; and 3) any disturbances to lands and resources.</p>
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on current</p>	<p><b>Proponent</b></p> <p>The Project would discharge to Blackbird Creek, and subsequently the Assiniboine River, southeastward.</p> <p>The Blackbird Creek Project is primarily located on privately owned lands where access has not been provided. The small areas of Crown land present within the network are not accessible.</p>	<p>Permits and approvals under the <i>Water Security Agency Act</i> require that Project-related changes to lands and resources at the nearest point of perception receptors (e.g. accessible Crown lands and lands within traditional territories to which Project downstream effects may extend) be limited. Permit and approval include conditions governing operation of the proposed drainage network. Interprovincial</p>





Analysis Summary:	Blackbird Creek Project	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
use of lands and resources for traditional purposes	<p><b>Indigenous Group Concerns</b></p> <p>Potential impacts may result to current use of lands and resources for traditional purposes on lands and waters outside and downstream of the Blackbird Creek Project.</p> <p>Keeseekoose First Nation advised the Agency that they do not anticipate adverse effects to their current use of reserve lands that are included within the network.</p> <p>As a result of Blackbird Creek Project, changes to downstream water quality and quantity, and natural patterns of flow, effects may extend to accessible Crown lands downstream, including areas within traditional territories of Treaty 4 and Treaty 2 Nations, and portions of the Metis homeland. Size and quality of land, availability of preferred resources, and quality and safety of using resources may be impacted from potential Blackbird Creek Project effects to water.</p> <p>Zagime Anishnabek noted that hunters exercised hunting rights within the general area of the Blackbird Creek Project and requested specific mapping from the Saskatchewan WSA to inform their review of potential Project effects. The Saskatchewan WSA provided mapping resources to the Agency, which were forwarded to the Nation.</p> <p>Cowessess First Nation, First Nations in Treaty 2 Territory, and Gambler First Nation noted concerns about the loss and alteration of fish and wildlife habitat relied upon for the exercise of section 35 rights, in areas downstream of the Blackbird Creek Project.</p>	mechanisms also manage water quality and quantity at the Saskatchewan-Manitoba border.
Any change occurring in Canada to the health, social or economic conditions of	<p><b>Proponent</b></p> <p>No adverse changes are anticipated. Keeseekoose First Nation is supportive of the Project.</p>	



Analysis Summary:	Blackbird Creek Project	
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
the Indigenous peoples of Canada	<p><b>Indigenous Group Concerns</b></p> <p>Gambler First Nation identified flood risks to lands (approximately 60 kilometres downstream) relied upon by the Nation for their exercise of section 35 rights are anticipated with the Blackbird Creek Project despite the proposed mitigation measures. Associated socio-economic effects are also identified, related to the Nation's primary income generation (farming) in an area where Blackbird Creek Project changes to the hydrologic regime (water velocity and flow) may reduce the area of arable land.</p>	



[Annex II-B: Analysis Summary Table – Saline Lake Project Specific Concerns](#)

Annex I complements Annex II and includes effects and mitigation that are either specific to this network or are shared by only a subset of the nine Saskatchewan agricultural drainage network projects. Additional detail on relevant provincial authorizations is provided in Annex III.

<b>Saline Lake Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p><b>Proponent</b> Saskatchewan WSA identifies fish (and therefore fish habitat) are likely to be present.</p>	<p>Saskatchewan’s <i>Water Security Agency Act</i> and associated <i>Water Security Agency Regulations</i> apply and are integrated with Aquatic Habitat Protection Permitting <i>under the Environmental Management and Protection Act, 2010</i> (EMPA 2010) to consider direct and indirect impacts to fish and fish habitat.</p> <p>Saskatchewan WSA’s Channelization Mitigation Policy may apply and considers when a project includes channelization/channel alteration or a second order stream. Pursuant to this policy the Saskatchewan WSA considers how impacts from the channelization or impacts to fish habitat will be mitigated as demonstrated by the proponent.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align with and support the provincial Fisheries Plan.</p> <p>The proponent is required comply with the <i>Fisheries Act</i> and may require an authorization that will have conditions when it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat.</p>
<p>A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i></p>	<p><b>Federal and Provincial Advice</b> ECCC described the Project area to have low to moderate migratory bird habitat potential, as the area is predominantly cultivated but still has a number of wetlands impacted by existing development.</p>	<p>The Saskatchewan WSA recognizes that the MBCA prohibits killing, harming, or collecting adults, young, and eggs of migratory birds and screens and provides regulatory responses for effects to migratory birds.</p>



<b>Saline Lake Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
	<p>The Project is located within a priority landscape identified for migratory bird conservation, on the edge of the Prairie Habitat Joint Venture's Conjuring Creek targeted landscape (North American Waterfowl Management Plan).</p> <p>ECCC noted that the drainage of wetlands and associated clearing of trees and shrubs (which serve as breeding (nesting) habitats for migratory birds) may result in harm or disturb migratory birds and their nests.</p>	<p>The Saskatchewan WSA indicated that it conducts a risk analysis to consider impacts related to migratory birds and identifies appropriate mitigation requirements and enforcement responses.</p> <p>For migratory birds that are listed under the <i>Species at Risk Act</i>, the Government of Saskatchewan Activity Restriction Guidelines for Sensitive Species setback distances will be included as a condition of the permit.</p> <p>In an effort to improve the species at risk screening process, the Saskatchewan WSA has committed to continuing to work the Saskatchewan Ministry of Environment to incorporate new data for species at risk location and explore the possibilities of incorporating species occurrence probability maps.</p>
A change to the environment that would occur on federal lands	<p><b>Proponent</b></p> <p>No federal land parcels apparent in the immediate area of the network.</p> <p><b>Federal and Provincial Advice</b></p> <p>Nearest federal lands parcel is Fishing Lake IR 89, 27 kilometres west of the network Fishing Lake is located approximately 17 kilometres to the west, and is an area with known importance and rights use by Indigenous people, but is not on the downstream drainage pathway for the Project.</p> <p><b>Indigenous Group Concerns</b></p> <p>The Agency did not receive comments from Indigenous groups for this Project regarding potential for effects to federal lands (reserves).</p>	Not applicable.
A change to the environment that would occur in a province other	<p><b>Indigenous Concerns</b></p> <p>Potential transboundary effects could exist due to cumulative effects of drainage into the province of Manitoba.</p>	<i>Saskatchewan – Manitoba Memorandum of Understanding (MOU) Respecting Water Management</i>



<b>Saline Lake Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
than the one in which the project is being carried out or outside Canada		<i>Master Agreement on Apportionment</i>
With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on physical and cultural heritage	<p><b>Proponent</b></p> <p>No information is provided by the WSA for the extent or access limitations to provincial Crown lands in the drainage network. Saline Lake, the natural waterbody that is the adequate outlet of the network is provincial Crown land.</p> <p><b>Indigenous Group Concerns</b></p> <p>For Saline Lake specifically, Kawacatoose First Nation identified anticipated effects including downstream flooding, water quality contamination (sediment, erosion, nutrient and salinity), wetland loss, loss of wildlife or wildlife habitat, loss of access to unoccupied Crown lands which would impact Kawacatoose First Nation's exercise of its section 35 rights to hunt, fish, trap and gather plants and medicines and to participate in cultural and ceremonial activities.</p>	<p>The Saskatchewan Government's First Nation and Métis Consultation Policy Framework (CPF) sets out the government's commitment to fulfilling its legal duty to consult and accommodate First Nation and Métis communities in advance of decisions or actions that have the potential to adversely impact the exercise of:</p> <ul style="list-style-type: none"> <li>• Aboriginal and Treaty rights such as the right to hunt, fish and trap on unoccupied Crown land and other land to which a community has a right-of-access for these purposes; and</li> <li>• Traditional uses of land and resources such as the gathering of plants for food and medicinal purposes and carrying out ceremonial and spiritual observances and practices on unoccupied Crown land and other land to which a community has a right of access for these purposes.</li> </ul> <p>The WSA completed pre-consultation assessments to consider the potential for impact and related Duty to Consult and found they had no Duty. The assessment is described as including a review of 1) any changes on the ground associated with any conservation area authority formation and approval; 2) any limitations to right-of-access land within the drainage network boundary; and 3) any disturbances to lands and resources.</p>
With respect to the Indigenous peoples of Canada, an impact -	<b>Indigenous Group Concerns</b>	Permits and approvals under the <i>Water Security Agency Act</i> require that Project-related changes to lands and resources at the nearest point of perception receptors (e.g. accessible Crown lands and lands



<b>Saline Lake Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
occurring in Canada and resulting from any change to the environment - on current use of lands and resources for traditional purposes	Specific reference was made to the Wascana Block A Project, and Saline Lake Project, given proximity to areas of core use by Kawacatoose First Nation.	within traditional territories to which Project downstream effects may extend) be limited. Permit and approval include conditions governing operation of the proposed drainage network.





[Annex II-C: Analysis Summary Table – 600 Creek Project Specific Concerns](#)

Annex I complements Annex II and includes effects and mitigation that are either specific to this network or are shared by only a subset of the nine Saskatchewan agricultural drainage network projects. Additional detail on relevant provincial authorizations is provided in Annex III.

<b>600 Creek Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p><b>Proponent</b></p> <p>Saskatchewan WSA has not reviewed the Project for potential fish presence; fish habitat potential.</p> <p><b>Indigenous Concerns</b></p> <p>Manitoba Metis Federation noted specific concerns about effects to fish and fish habitat though consolidation of wetlands and resulting stresses to freshwater fish populations.</p>	<p>Saskatchewan’s <i>Water Security Agency Act</i> and associated <i>Water Security Agency Regulations</i> apply and are integrated with Aquatic Habitat Protection Permitting <i>under the Environmental Management and Protection Act, 2010</i> (EMPA 2010) to consider direct and indirect impacts to fish and fish habitat.</p> <p>Saskatchewan WSA’s Channelization Mitigation Policy may apply and considers when a project includes channelization/channel alteration or a second order stream. Pursuant to this policy the Saskatchewan WSA considers how impacts from the channelization or impacts to fish habitat will be mitigated as demonstrated by the proponent.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align with and support the provincial Fisheries Plan.</p> <p>The proponent is required comply with the <i>Fisheries Act</i> and may require an authorization that will have conditions when it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat.</p>
<p>A change to migratory birds, as defined in subsection 2(1) of the</p>	<p><b>Federal and Provincial Advice</b></p> <p>ECCC indicated that the 600 Creek is an ephemeral creek, with palustrine march wetland and is located within a priority landscape identified for migratory</p>	<p>The Saskatchewan WSA recognizes that the MBCA, prohibits killing, harming, or collecting adults, young, and eggs of migratory birds and screens and provides regulatory responses for effects to migratory birds.</p>



<b>600 Creek Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p><i>Migratory Birds Convention Act, 1994</i></p>	<p>bird conservation, within the Prairie Habitat Joint Venture's Virden landscape (North American Waterfowl Management Plan).</p> <p>This network is located in an area of high waterfowl productivity and has 40 to 60 pairs of waterfowl per square mile. As this network would result in the drainage/partial drainage of 73 percent of the site's wetlands, this network may have a high impact on waterfowl and associated wetland songbird populations.</p> <p>ECCC noted that the drainage of wetlands and associated clearing of trees and shrubs (which serve as breeding (nesting) habitats for migratory birds) may result in harm or disturb migratory birds and their nests.</p> <p><b>Indigenous Concerns</b></p> <p>Manitoba Metis Federation, noted concerns about the loss and alteration of wetlands and wildlife habitat in the area of the Project.</p>	<p>The Saskatchewan WSA indicated that it conducts a risk analysis to consider impacts related to migratory birds and identifies appropriate mitigation requirements and enforcement responses. For migratory birds that are listed under the SARA, the Government of Saskatchewan Activity Restriction Guidelines for Sensitive Species setback distances will be included as a condition of the permit.</p> <p>In an effort to improve the species at risk screening process, the Saskatchewan WSA has committed to continuing to work the Saskatchewan Ministry of Environment to incorporate new data for species at risk location and explore the possibilities of incorporating species occurrence probability maps.</p>
<p>A change to the environment that would occur on federal lands</p>	<p><b>Proponent</b></p> <p>The draft design for the 600 Creek Project, as presented by the WSA, is not located near or within federal lands.</p> <p><b>Federal and Provincial Advice</b></p> <p>Closest federal lands appear to be Canupawakpa Dakota Nation reserve lands 50 kilometres to the NE and not located on the downstream path for flows from the network.</p> <p><b>Indigenous Concerns</b></p> <p>The Agency did not receive comments from Indigenous groups for this Project regarding potential for effects to federal lands (reserve lands).</p>	<p>The Saskatchewan WSA's Drainage Application and Options for Obtaining Land Control on First Nations Land Policy requires that, for Projects that include reserve land or land held by a First Nation through a holding company, proponents either obtain a Band Council Resolution in support of the Project or a duly signed document authorized under a land code.</p>



<b>600 Creek Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>A change to the environment that would occur in a province other than the one in which the project is being carried out or outside Canada</p>	<p><b>Federal and Provincial Advice</b></p> <p>Potential transboundary effects are likely.</p> <p>The 600 Creek Project design options have included consideration of components in both Saskatchewan and Manitoba. The adequate outlet for this network may be located at the Saskatchewan-Manitoba border, pending final design.</p> <p>Given limited Project design information, the Saskatchewan WSA has not provided specific Project mitigation measures for nutrient export nor described the extent of flow reduction and water retention anticipated with the 600 Creek network.</p> <p>Manitoba Sustainable Development identified potential interprovincial effects that may result from large increases in water volume directed from Saskatchewan watersheds into Manitoba, including increased nutrient export, flood and erosion risk.</p> <p><b>Public Concerns</b></p> <p>Concerns were raised regarding potential transboundary effects in relation to 600 Creek Project's proximity to the Saskatchewan-Manitoba border.</p>	<p><i>Saskatchewan – Manitoba Memorandum of Understanding (MOU) Respecting Water Management</i> exists to facilitate a cooperative and coordinated approach to mitigate flooding and drought, to protect and improve water quality and aquatic ecosystem health, and to reduce nutrients in rivers and lakes. Under the MOU, the provinces will work together to identify and address water management issues that arise transboundary watersheds as related to drainage. The MOU directs engagement with groups [unspecified] in cross border transboundary watershed planning. .</p> <p>The <i>Master Agreement on Apportionment</i> defines the division and allocation of interprovincial streams, provides water quality objects at provincial boundaries, and promotes cooperation in interprovincial water management. This was signed by the Alberta, Saskatchewan, Manitoba and the Government of Canada.</p> <p>International Souris River Board manages water quality in the Souris drainage basin which encompasses parts of Saskatchewan, North Dakota, and Manitoba. The Board investigates and reports on water requirements for works and projects located in the basin and make a recommendation whether it would be in the public interest for Canada or the United States.</p>
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on</p>	<p><b>Indigenous Concerns</b></p> <p>For the 600 Creek Project specifically, Manitoba Metis Federation identified concerns regarding Project effects to lands, waters, and resources important for the exercise of section 35 rights and to maintain their distinct Metis traditions and connection to their traditional territory.</p>	<p>The Saskatchewan Government's First Nation and Métis Consultation Policy Framework (CPF) sets out the government's commitment to fulfilling its legal duty to consult and accommodate First Nation and Metis communities in advance of decisions or actions that have the potential to adversely impact the exercise of:</p>



600 Creek Project		
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
physical and cultural heritage		<ul style="list-style-type: none"> <li>• Aboriginal and Treaty rights such as the right to hunt, fish and trap on unoccupied Crown land and other land to which a community has a right-of-access for these purposes; and</li> <li>• Traditional uses of land and resources such as the gathering of plants for food and medicinal purposes and carrying out ceremonial and spiritual observances and practices on unoccupied Crown land and other land to which a community has a right of access for these purposes.</li> </ul> <p>The WSA completed pre-consultation assessments to consider the potential for impact and related Duty to Consult and found they had no Duty. The assessment is described as including a review of 1) any changes on the ground associated with the provincial formation of any conservation area authority formation and approval; 2) any limitations to right-of-access land within the drainage network boundary; and 3) any disturbances to lands and resources.</p>
With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on current use of lands and resources for traditional purposes	<p><b>Indigenous Concerns</b></p> <p>Manitoba Metis Federation noted specific concerns about effects to fish and fish habitat though consolidation of wetlands and resulting stresses to freshwater fish populations relied upon for fishing and sustenance, wetland losses and regional effects to migratory birds and wildlife species relied upon as resources for trapping and hunting (specific reference made to 600 Creek, due to proximity to the Southwest Region of Manitoba where Metis citizens exercise section 35 rights).</p>	<p>Permits and approvals under the <i>Water Security Agency Act</i> require that Project-related changes to lands and resources at the nearest point of perception receptors (e.g. accessible Crown lands and lands within traditional territories to which Project downstream effects may extend) be limited. Permit and approval include conditions governing operation of the proposed drainage network. Interprovincial mechanisms also manage water quality and quantity at the Saskatchewan-Manitoba border.</p>



[Annex II-D: Analysis Summary Table – Vipond Project Specific Concerns](#)

Annex I complements Annex II and includes effects and mitigation that are either specific to this network or are shared by only a subset of the nine Saskatchewan agricultural drainage network projects. Additional detail on relevant provincial authorizations is provided in Annex III.

Vipond Project		
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i>	<p><b>Proponent</b></p> <p>Saskatchewan WSA notes no fish are likely to be present; fish habitat potential.</p>	<p>Saskatchewan's <i>Water Security Agency Act</i> and associated <i>Water Security Agency Regulations</i> apply and are integrated with Aquatic Habitat Protection Permitting <i>under the Environmental Management and Protection Act, 2010</i> (EMPA 2010) to consider direct and indirect impacts to fish and fish habitat.</p> <p>Saskatchewan WSA's Channelization Mitigation Policy may apply and considers when a project includes channelization/channel alteration or a second order stream. Pursuant to this policy the Saskatchewan WSA considers how impacts from the channelization or impacts to fish habitat will be mitigated as demonstrated by the proponent.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align with and support the provincial Fisheries Plan.</p> <p>The proponent is required comply with the <i>Fisheries Act</i> and may require an authorization that will have conditions when it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat.</p>



<b>Vipond Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i></p>	<p><b>Federal and Provincial Advice</b></p> <p>Environment and Climate Change Canada (ECCC) indicated that the Vipond Drainage Network contains hundreds of small lakes and large wetlands and is a priority landscape identified for migratory bird conservation. As this network is located in an area of high waterfowl productivity, the Vipond Project has potential effects on waterfowl and associated songbird populations.</p> <p>ECCC noted that the drainage of wetlands and associated clearing of trees and shrubs (which serve as breeding (nesting) habitats for migratory birds) may result in harm or disturb migratory birds and their nests.</p>	<p>The MBCA prohibits killing, harming, or collecting adults, young, and eggs of migratory birds and screens and provides regulatory responses for effects to migratory birds.</p> <p>The Saskatchewan WSA indicated that it conducts a risk analysis to consider impacts related to migratory birds and identifies appropriate mitigation requirements and enforcement responses.</p>
<p>A change to the environment that would occur on federal lands</p>	<p><b>Proponent</b></p> <p>During the Saskatchewan WSA's review of the Vipond Project application submitted by the proponent, issues concerning "the project boundary, impacted wetlands, location of drainage works, adequate flow controls and accuracy of hydrological sub-catchment basins" were found. The proponent worked with the Saskatchewan WSA to ensure the application meets the Saskatchewan WSA's regulatory standards.</p> <p><b>Federal and Provincial Advice</b></p> <p>The pathway for flows exiting the network is through Vipond Creek, then Moose Mountain Creek, which is impounded into Moose Mountain Lake, before Moose Mountain Creek flows to the Souris River, which travels into the US.</p> <p>Carry the Kettle Nakota I.R. 76-2 is located two and half kilometres from the western end of the network (not on the downstream pathway of flow),</p> <p>Cowessess First Nation IR 73 is located approximately 4 kilometres southeast of the network (not immediately on the downstream pathway of flow).</p>	<p>Licences, permits and approvals required for the Project pursuant to the Saskatchewan <i>Water Security Agency Act</i>, Water Security Agency Regulations, and Agricultural Water Management Strategy would set requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</p> <p>Further, the Saskatchewan WSA's Drainage Application and Options for Obtaining Land Control on First Nations Land Policy requires that, for Projects that include reserve land or land held by a First Nation through a holding company, proponents either obtain a Band Council Resolution in support of the Project or a duly signed document authorized under a land code.</p>





[Annex II-E: Analysis Summary Table – Dry Lake Project Specific Concerns](#)

Annex I complements Annex II and includes effects and mitigation that are either specific to this network or are shared by only a subset of the nine Saskatchewan agricultural drainage network projects. Additional detail on relevant provincial authorizations is provided in Annex III.

Dry Lake Project		
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i>	<p><b>Proponent</b></p> <p>Saskatchewan WSA notes no fish are likely to be present; fish habitat potential.</p>	<p>Saskatchewan’s <i>Water Security Agency Act</i> and associated <i>Water Security Agency Regulations</i> apply and are integrated with Aquatic Habitat Protection Permitting <i>under the Environmental Management and Protection Act, 2010</i> (EMPA 2010) to consider direct and indirect impacts to fish and fish habitat.</p> <p>Saskatchewan WSA’s Channelization Mitigation Policy may apply and considers when a project includes channelization/channel alteration or a second order stream. Pursuant to this policy the Saskatchewan WSA considers how impacts from the channelization or impacts to fish habitat will be mitigated as demonstrated by the proponent.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align with and support the provincial Fisheries Plan.</p> <p>The proponent is required comply with the <i>Fisheries Act</i> and may require an authorization that will have conditions when it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat.</p>
A change to migratory birds, as defined in subsection 2(1) of the	<b>Federal and Provincial Advice</b>	The Saskatchewan WSA recognizes that the MBCA prohibits killing, harming, or collecting adults, young, and eggs of migratory birds and



<p><i>Migratory Birds Convention Act, 1994</i></p>	<p>Migratory bird species at risk occurrences were recorded and confirmed within the project area of the Dry Lake Project. The screening results included occurrences of Burrowing Owl; however, the last known observation was from 20 years ago with most of the habitat converted to unsuitable cropland and existing works. Due to the absence of this species at these sites and no listed Critical Habitat, no additional special approval conditions were included on the approvals.</p> <p>ECCC advised that the Dry Lake Project, as proposed, has already undergone significant alteration and there is little remaining habitat for migratory birds, especially waterfowl.</p> <p>ECCC noted that the drainage of wetlands and associated clearing of trees and shrubs (which serve as breeding (nesting) habitats for migratory birds) may result in harm or disturb migratory birds and their nests</p>	<p>screens and provides regulatory responses for effects to migratory birds.</p> <p>The Saskatchewan WSA indicated that it conducts a risk analysis to consider impacts related to migratory birds and identifies appropriate mitigation requirements and enforcement responses.</p> <p>For migratory birds that are listed under the SARA, the Government of Saskatchewan Activity Restriction Guideline will be included as a condition of the permit.</p> <p>In an effort to improve the species at risk screening process, the Saskatchewan WSA has committed to continuing to work the Saskatchewan Ministry of Environment to incorporate new data for species at risk location and explore the possibilities of incorporating species occurrence probability maps.</p>
<p>A change to the environment that would occur on federal lands</p>	<p><b>Proponent</b></p> <p>No federal land parcels apparent in the network.</p> <p><b>Federal and Provincial Advice</b></p> <p>Cowessess First Nation IR 73 parcel is located 2 kilometres southwest of the Project.</p> <p>Ocean Man First Nation reserve (IR 69 A) is located south of Gooseberry Lake, approx. 15 kilometres southeast of the Project.</p>	<p>Licences, permits and approvals required for the Project pursuant to the Saskatchewan <i>Water Security Agency Act</i>, Water Security Agency Regulations, and Agricultural Water Management Strategy would set requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</p> <p>Further, the Saskatchewan WSA's Drainage Application and Options for Obtaining Land Control on First Nations Land Policy requires that, for Projects that include reserve land or land held by a First Nation through a holding company, proponents either obtain a Band Council Resolution in support of the Project or a duly signed document authorized under a land code.</p>
<p>A change to the environment that would occur in a province other than the one in which the project is being carried out or outside Canada</p>	<p>The upper Souris River basin flows into the USA and then back into Canada. However, given the distance to the border, the potential for impacts in the USA are low.</p>	<p>International Souris River Board manages water quality in the Souris drainage basin which encompasses parts of Saskatchewan, North Dakota, and Manitoba. The Board investigates and reports on water requirements for works and projects located in the basin and make a recommendation whether it would be in the public interest for Canada or the United States.</p> <p>The <i>Boundary Waters Treaty</i> between Canada and the United States regulates shared water uses, investigates transboundary issues (water quality of rivers and lakes) and recommends solutions. Orders</p>



		of approval can place conditions on the application and operation of projects that would affect natural level of boundary waters.
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[Annex II-F: Analysis Summary Table – Atwater Project Specific Concerns](#)

Annex I complements Annex II and includes effects and mitigation that are either specific to this network or are shared by only a subset of the nine Saskatchewan agricultural drainage network projects. Additional detail on relevant provincial authorizations is provided in Annex III.

Atwater Project		
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p><b>Proponent</b></p> <p>Saskatchewan WSA notes no fish are likely to be present; fish habitat potential exists.</p> <p><b>Indigenous Group Concerns</b></p> <p>Piapot First Nation identified concerns with adverse effects of the Projects to wetlands and related effects to fish and fish habitat. Piapot First Nation also described concerns relating to the cumulative effects of agricultural drainage to the Qu'Appelle River watershed, specifically expressing concern with potential flooding of reserve lands, deterioration of water quality, degradation of riparian ecosystems anticipated from the additive flows contributed from the Lang West and Wascana Block A and Atwater Projects.</p> <p><b>Public Concerns</b></p> <p>Environmental non-governmental organizations, including the Lower Qu'Appelle Watershed Stewards, Saskatoon Wildlife Federation, Saskatchewan Alliance for Water Security, Calling Lakes Ecomuseum, the Rural Municipality of Spyhill, and members of the public expressed concern with Project changes to water quality and aquatic ecosystems in the Qu'Appelle River valley.</p>	<p>Saskatchewan's <i>Water Security Agency Act</i> and associated <i>Water Security Agency Regulations</i> apply and are integrated with Aquatic Habitat Protection Permitting under the <i>Environmental Management and Protection Act, 2010</i> (EMPA 2010) to consider direct and indirect impacts to fish and fish habitat.</p> <p>Saskatchewan WSA's Channelization Mitigation Policy may apply and considers when a project includes channelization/channel alteration or a second order stream. Pursuant to this policy the Saskatchewan WSA considers how impacts from the channelization or impacts to fish habitat will be mitigated as demonstrated by the proponent.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align with and support the provincial Fisheries Plan.</p> <p>The proponent is required comply with the <i>Fisheries Act</i> and may require an authorization that will have conditions when it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat.</p>



<b>Atwater Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i></p>	<p><b>Federal and Provincial Advice</b></p> <p>ECCC described the Project area to have low potential migratory bird habitat value but moderate potential migratory bird habitat value at the Atwater Creek (outlet). The network is moderate in size, with wetlands predominantly cultivated. The remaining wetlands are cultivated in dry years.</p> <p>ECCC noted that the drainage of wetlands and associated clearing of trees and shrubs (which serve as breeding (nesting) habitats for migratory birds) may result in harm or disturb migratory birds and their nests.</p>	<p>The MBCA prohibits killing, harming, or collecting adults, young, and eggs of migratory birds and screens and provides regulatory responses for effects to migratory birds.</p>
<p>A change to the environment that would occur on federal lands</p>	<p><b>Proponent</b></p> <p>The Saskatchewan WSA noted that the Atwater drainage network is split into five sub-basins, each of which will have a flow control structure, in order to mitigate hydrologic impacts of the drained wetlands. Potential environmental effects to federal lands are anticipated to be localized and mitigated by design features that would control erosion and sedimentation (effects to water quality).</p> <p><b>Federal and Provincial Advice</b></p> <p>Ochapawace First Nation has numerous reserve (IR 71) parcels of land surrounding the network and immediately adjacent to the network on the west side (appear not to be on the downstream pathway of flow).</p> <p>Cowessess First Nation has numerous reserve parcels of land (IR 73) surrounding the network and immediately adjacent to the network on the west side (appear not to be on the downstream pathway of flow).</p> <p><b>Indigenous Group Concerns</b></p> <p>Piapot First Nation, located on the Qu'Appelle River, asserts that adverse environmental effects to federal lands should be anticipated due to expected downstream effects on the Qu'Appelle River Watershed.</p>	<p>Licences, permits and approvals required for the Project pursuant to the Saskatchewan <i>Water Security Agency Act</i>, <i>Water Security Agency Regulations</i>, and <i>Agricultural Water Management Strategy</i> would set requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</p> <p>Further, the Saskatchewan WSA's <i>Drainage Application and Options for Obtaining Land Control on First Nations Land Policy</i> requires that, for Projects that include reserve land or land held by a First Nation through a holding company, proponents either obtain a Band Council Resolution in support of the Project or a duly signed document authorized under a land code.</p>



<b>Atwater Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on physical and cultural heritage</p>	<p><b>Indigenous Group Concerns</b></p> <p>For Atwater Project specifically, Piapot First Nation noted concern with the lack of consideration of effects to physical and cultural heritage of aboriginal peoples in the Saskatchewan WSA's review. Piapot First Nation commented on the importance of river sites (and agency for their management) to their cultural reproduction of lifestyles, ways of living, value systems, traditions and beliefs.</p>	<p>The Saskatchewan Government's First Nation and Métis Consultation Policy Framework (CPF) sets out the government's commitment to fulfilling its legal duty to consult and accommodate First Nation and Métis communities in advance of decisions or actions that have the potential to adversely impact the exercise of:</p> <ul style="list-style-type: none"> <li>• Aboriginal and Treaty rights such as the right to hunt, fish and trap on unoccupied Crown land and other land to which a community has a right-of-access for these purposes; and</li> <li>• Traditional uses of land and resources such as the gathering of plants for food and medicinal purposes and carrying out ceremonial and spiritual observances and practices on unoccupied Crown land and other land to which a community has a right of access for these purposes.</li> </ul> <p>The WSA completed pre-consultation assessments to consider the potential for impact and related Duty to Consult and found they had no Duty. The assessment is described as including a review of 1) any changes on the ground associated with any conservation area authority formation and approval; 2) any limitations to right-of-access land within the drainage network boundary; and 3) any disturbances to lands and resources.</p>
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on current use of lands and</p>	<p><b>Federal and Provincial Advice</b></p> <p>Ochapowace First Nation and Cowessess First Nation hold numerous reserve land parcels immediately adjacent to the Project.</p> <p><b>Indigenous Group Concerns</b></p> <p>Ochapowace First Nation did not provide views to the Agency.</p>	<p>The Saskatchewan WSA has indicated that Project-related changes to lands and resources may be limited at the nearest point of perception receptors (e.g. accessible Crown lands and lands within traditional territories to which Project downstream effects may extend) by Saskatchewan permit conditions governing operation of the proposed drainage network and by interprovincial mechanism</p>





<b>Atwater Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
resources for traditional purposes	<p>Cowessess First Nation noted concerns about the loss and alteration of fish and wildlife habitat relied upon for the exercise of section 35 rights, in areas downstream of the Blackbird Creek Project in response to the Agency seeking views on that specific Project. These views and concerns are understood by the Agency in the context of the Atwater Project also.</p> <p>For Atwater Project specifically, Piapot First Nation noted concern with the lack of consideration of effects to physical and cultural heritage of aboriginal peoples in the Saskatchewan WSA's review. Piapot First Nation commented on the importance of river sites (and agency for their management) to their cultural reproduction of lifestyles, ways of living, value systems, traditions and beliefs.</p>	enabling management of water quality and quantity at the Saskatchewan-Manitoba border.
Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada	<p><b>Indigenous Group Concerns</b></p> <p>Piapot First Nation described the adverse socio-economic effects experienced from historic flooding on Piapot First Nations lands, including loss of lands and resources and resulting loss of economic self-sufficiency for individual members and the Nation. Piapot First Nation noted concern with how the project changes from the three proposed Projects on the Qu'Appelle watershed (Lang West, Wascana Block A, Atwater) would interact and increase the Nation's experienced impacts.</p>	



[Annex II-G: Analysis Summary Table – Lang West Project Specific Concerns](#)

Annex I complements Annex II and includes effects and mitigation that are either specific to this network or are shared by only a subset of the nine Saskatchewan agricultural drainage network projects. Additional detail on relevant provincial authorizations is provided in Annex III.

<b>Lang West Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p><b>Proponent</b></p> <p>Saskatchewan WSA notes no fish are likely to be present; fish habitat potential exists.</p> <p><b>Indigenous Group Concerns</b></p> <p>Piapot First Nation identified concerns with adverse effects of the Projects to wetlands and related effects to fish and fish habitat. Piapot First Nation also described concerns relating to the cumulative effects of agricultural drainage to the Qu'Appelle River watershed, specifically expressing concern with potential flooding of reserve lands, deterioration of water quality, degradation of riparian ecosystems anticipated from the additive flows contributed from the Lang West and Wascana Block A and Atwater Projects.</p> <p><b>Public Concerns</b></p> <p>Environmental non-governmental organizations, including the Lower Qu'Appelle Watershed Stewards, Saskatoon Wildlife Federation, Saskatchewan Alliance for Water Security, Calling Lakes Ecomuseum, the Rural Municipality of Spyhill, and members of the public expressed concern with Project changes to water quality and aquatic ecosystems in the Qu'Appelle River valley.</p>	<p>Saskatchewan's <i>Water Security Agency Act</i> and associated <i>Water Security Agency Regulations</i> apply and are integrated with <i>Aquatic Habitat Protection Permitting under the Environmental Management and Protection Act, 2010</i> (EMPA 2010) to consider direct and indirect impacts to fish and fish habitat.</p> <p>Saskatchewan WSA's Channelization Mitigation Policy may apply and considers when a project includes channelization/channel alteration or a second order stream. Pursuant to this policy the Saskatchewan WSA considers how impacts from the channelization or impacts to fish habitat will be mitigated as demonstrated by the proponent.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align with and support the provincial Fisheries Plan.</p> <p>The proponent is required comply with the <i>Fisheries Act</i> and may require an authorization that will have conditions when it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat.</p>



<b>Lang West Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>A change to the environment that would occur on federal lands</p>	<p><b>Proponent</b></p> <p>No federal land parcels apparent in the network. Potential environmental effects to federal lands are anticipated to be localized and mitigated by design features that would control erosion and sedimentation (effects to water quality).</p> <p><b>Federal and Provincial Advice</b></p> <p>Cowessess First Nation IR 73 parcel is 7 kilometres north (not on the downstream pathway of flow),</p> <p>Piapot First Nation IR 75 E is located approximately 20 kilometres to the southwest, opposite side of the Moose Jaw River valley.</p> <p>Piapot First Nation IR 75 lands are also located downstream of the Project approximately 30 kilometres downstream on the Moose Jaw River.</p> <p><b>Indigenous Group Concerns</b></p> <p>Piapot First Nation, located on the Qu'Appelle River, asserts that adverse environmental effects to federal lands should be anticipated due to expected downstream effects on the Qu'Appelle River Watershed.</p>	<p>Licences, permits and approvals required for the Project pursuant to the Saskatchewan <i>Water Security Agency Act</i>, Water Security Agency Regulations, and Agricultural Water Management Strategy would set requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</p> <p>Further, the Saskatchewan WSA's Drainage Application and Options for Obtaining Land Control on First Nations Land Policy requires that, for Projects that include reserve land or land held by a First Nation through a holding company, proponents either obtain a Band Council Resolution in support of the Project or a duly signed document authorized under a land code.</p>
<p>A change to the environment that would occur in a province other than the one in which the project is being carried out or outside Canada</p>	<p>The upper Souris River basin flows into the USA and then back into Canada. However, given the distance to the border, the potential for impacts in the USA are low.</p>	<p>International Souris River Board manages water quality in the Souris drainage basin which encompasses parts of Saskatchewan, North Dakota, and Manitoba. The Board investigates and reports on water requirements for works and projects located in the basin and make a recommendation whether it would be in the public interest for Canada or the United States.</p> <p>The <i>Boundary Waters Treaty</i> between Canada and the United States regulates shared water uses, investigates transboundary issues (water quality of rivers and lakes) and recommends solutions. Orders</p>



<b>Lang West Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
		of approval can place conditions on the application and operation of projects that would affect natural level of boundary waters.
With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on physical and cultural heritage	<p><b>Indigenous Group Concerns</b></p> <p>For Lang West Project specifically, Piapot First Nation noted concern with the lack of consideration of effects to physical and cultural heritage of aboriginal peoples in the Saskatchewan WSA's review. Piapot First Nation indicated the importance of river sites (and agency for their management) to their cultural reproduction of lifestyles, ways of living, value systems, traditions and beliefs.</p>	<p>The Saskatchewan Government's First Nation and Métis Consultation Policy Framework (CPF) sets out the government's commitment to fulfilling its legal duty to consult and accommodate First Nation and Métis communities in advance of decisions or actions that have the potential to adversely impact the exercise of:</p> <ul style="list-style-type: none"> <li>• Aboriginal and Treaty rights such as the right to hunt, fish and trap on unoccupied Crown land and other land to which a community has a right-of-access for these purposes; and</li> <li>• Traditional uses of land and resources such as the gathering of plants for food and medicinal purposes and carrying out ceremonial and spiritual observances and practices on unoccupied Crown land and other land to which a community has a right of access for these purposes.</li> </ul> <p>The WSA completed pre-consultation assessments to consider the potential for impact and related Duty to Consult and found they had no Duty. The assessment is described as including a review of 1) any changes on the ground associated with any conservation area authority formation and approval; 2) any limitations to right-of-access land within the drainage network boundary; and 3) any disturbances to lands and resources.</p>
With respect to the Indigenous peoples of Canada, an impact -	<b>Indigenous Group Concerns</b>	The Saskatchewan WSA has indicated that Project-related changes to lands and resources may be limited at the nearest point of perception receptors (e.g. accessible Crown lands and lands within



<b>Lang West Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
occurring in Canada and resulting from any change to the environment - on current use of lands and resources for traditional purposes	Specific reference was made to Lang West Project by Piapot First Nation, in descriptions of concerns relating to the cumulative effects of agricultural drainage to the Qu'Appelle River watershed, specifically expressing concern with adverse effects anticipated from the additive flows contributed from the Lang West and Wascana Block A and Atwater Projects. These concerns include potential effects to the Nation's current use of lands and resources through potential flooding of reserve lands, deterioration of water quality, and degradation of riparian ecosystems.	traditional territories to which Project downstream effects may extend) by Saskatchewan permit conditions governing operation of the proposed drainage network and by interprovincial mechanism enabling management of water quality and quantity at the Saskatchewan-Manitoba border.
Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada	<b>Indigenous Group Concerns</b> Piapot First Nation described the adverse socio-economic effects experienced from historic flooding on Piapot First Nations lands, including loss of lands and resources and resulting loss of economic self-sufficiency for individual members and the Nation. Piapot First Nation noted concern with how the project changes from the three proposed Projects on the Qu'Appelle watershed (Lang West, Wascana Block A, Atwater) would interact and increase the Nation's experienced impacts.	



[Annex II-H: Analysis Summary Table – Wascana Block A Project Specific Concerns](#)

Annex I complements Annex II and includes effects and mitigation that are either specific to this network or are shared by only a subset of the nine Saskatchewan agricultural drainage network projects. Additional detail on relevant provincial authorizations is provided in Annex III.

Wascana Block A Project		
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p><b>Proponent</b></p> <p>Saskatchewan WSA identifies fish (and therefore fish habitat) are likely to be present.</p> <p><b>Indigenous Group Concerns</b></p> <p>Piapot First Nation identified concerns with adverse effects of the Projects to wetlands and related effects to fish and fish habitat. Piapot First Nation also described concerns relating to the cumulative effects of agricultural drainage to the Qu'Appelle River watershed, specifically expressing concern with potential flooding of reserve lands, deterioration of water quality, degradation of riparian ecosystems anticipated from the additive flows contributed from the Lang West and Wascana Block A and Atwater Projects.</p> <p><b>Public Concerns</b></p> <p>Environmental non-governmental organizations, including the Lower Qu'Appelle Watershed Stewards, Saskatoon Wildlife Federation, Saskatchewan Alliance for Water Security, Calling Lakes Ecomuseum, the Rural Municipality of Spyhill, and members of the public expressed concern with Project changes to water quality and aquatic ecosystems in the Qu'Appelle River valley.</p>	<p>Saskatchewan's <i>Water Security Agency Act</i> and associated <i>Water Security Agency Regulations</i> apply and are integrated with Aquatic Habitat Protection Permitting under the <i>Environmental Management and Protection Act, 2010</i> (EMPA 2010) to consider direct and indirect impacts to fish and fish habitat.</p> <p>Saskatchewan WSA's Channelization Mitigation Policy may apply and considers when a project includes channelization/channel alteration or a second order stream. Pursuant to this policy the Saskatchewan WSA considers how impacts from the channelization or impacts to fish habitat will be mitigated as demonstrated by the proponent.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align with and support the provincial Fisheries Plan.</p> <p>The proponent is required comply with the <i>Fisheries Act</i> and may require an authorization that will have conditions when it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat.</p>





<b>Wascana Block A Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i>	<p><b>Federal and Provincial Advice</b></p> <p>ECCC advised that the Wascana Block A Project, as proposed, is a small area and is predominantly cultivated/developed and the remaining wetlands have been cultivated in dry years; therefore, the potential for migratory bird presence is low.</p>	<p>The MBCA prohibits killing, harming, or collecting adults, young, and eggs of migratory birds and screens and provides regulatory responses for effects to migratory birds.</p> <p>The Saskatchewan WSA indicated that it conducts a risk analysis to consider impacts related to migratory birds and identifies appropriate mitigation requirements and enforcement responses.</p>
A change to the environment that would occur on federal lands	<p><b>Proponent</b></p> <p>No federal land parcels apparent in the network. Potential environmental effects to federal lands are anticipated to be localized and mitigated by design features that would control erosion and sedimentation (effects to water quality).</p> <p><b>Federal and Provincial Advice</b></p> <p>Cowessess First Nation IR 73 parcel is 12 kilometres north and downstream of the Project on Wascana Creek.</p> <p>Piapot First Nation reserve land parcel (IR 75T) is located 12 kilometres west of the Project.</p> <p><b>Indigenous Group Concerns</b></p> <p>Piapot First Nation, located on the Qu'Appelle River, asserts that adverse environmental effects to federal lands should be anticipated due to expected downstream effects on the Qu'Appelle River Watershed.</p>	<p>Licences, permits and approvals required for the Project pursuant to the Saskatchewan <i>Water Security Agency Act</i>, Water Security Agency Regulations, and Agricultural Water Management Strategy would set requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</p> <p>Further, the Saskatchewan WSA's Drainage Application and Options for Obtaining Land Control on First Nations Land Policy requires that, for Projects that include reserve land or land held by a First Nation through a holding company, proponents either obtain a Band Council Resolution in support of the Project or a duly signed document authorized under a land code.</p>
With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the	<p><b>Indigenous Group Concerns</b></p> <p>For Wascana Block A Project specifically, Kawacatoose First Nation identified anticipated project effects including downstream flooding, water quality contamination (sediment, erosion, nutrient and salinity), wetland loss, loss of wildlife or wildlife habitat, loss of access to unoccupied Crown lands which</p>	<p>The Saskatchewan Government's First Nation and Métis Consultation Policy Framework (CPF) sets out the government's commitment to fulfilling its legal duty to consult and accommodate First Nation and Métis communities in advance of decisions or actions that have the potential to adversely impact the exercise of:</p>



<b>Wascana Block A Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>environment - on physical and cultural heritage</p>	<p>would impact Kawacatoose First Nation's exercise of its section 35 rights to hunt, fish, trap and gather plants and medicines and to participate in cultural and ceremonial activities.</p> <p>For Wascana Block A Project specifically Piapot First Nation noted concern with the lack of consideration of effects to physical and cultural heritage of aboriginal peoples in the Saskatchewan WSA's review. Piapot First Nation commented on the importance of river sites (and agency for their management) to their cultural reproduction of lifestyles, ways of living, value systems, traditions and beliefs.</p>	<ul style="list-style-type: none"> <li>• Aboriginal and Treaty rights such as the right to hunt, fish and trap on unoccupied Crown land and other land to which a community has a right-of-access for these purposes; and</li> <li>• Traditional uses of land and resources such as the gathering of plants for food and medicinal purposes and carrying out ceremonial and spiritual observances and practices on unoccupied Crown land and other land to which a community has a right of access for these purposes.</li> </ul> <p>The WSA completed pre-consultation assessments to consider the potential for impact and related Duty to Consult and found they had no Duty. The assessment is described as including a review of 1) any changes on the ground associated with any conservation area authority formation and approval; 2) any limitations to right-of-access land within the drainage network boundary; and 3) any disturbances to lands and resources.</p>
<p>With respect to the Indigenous peoples of Canada, an impact - occurring in Canada and resulting from any change to the environment - on current use of lands and resources for traditional purposes</p>	<p><b>Indigenous Group Concerns</b></p> <p>Specific reference was made to Wascana Block A Project by Piapot First Nation, in descriptions of concerns relating to the cumulative effects of agricultural drainage to the Qu'Appelle River watershed, specifically expressing concern with adverse effects anticipated from the additive flows contributed from the Lang West and Wascana Block A and Atwater Projects. These concerns include potential effects to the Nation's current use of lands and resources through potential flooding of reserve lands, deterioration of water quality, and degradation of riparian ecosystems.</p> <p>Specific reference was made to the Wascana Block A Project, and Saline Lake Project, given proximity to areas of core use by Kawacatoose First Nation.</p>	<p>The Saskatchewan WSA has indicated that Project-related changes to lands and resources may be limited at the nearest point of perception receptors (e.g. accessible Crown lands and lands within traditional territories to which Project downstream effects may extend) by Saskatchewan permit conditions governing operation of the proposed drainage network and by interprovincial mechanism enabling management of water quality and quantity at the Saskatchewan-Manitoba border.</p>



<b>Wascana Block A Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<p>Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada</p>	<p><b>Indigenous Group Concerns</b></p> <p>Piapot First Nation described the adverse socio-economic effects experienced from historic flooding on Piapot First Nations lands, including loss of lands and resources and resulting loss of economic self-sufficiency for individual members and the Nation. Piapot First Nation noted concern with how the project changes from the three proposed Projects on the Qu'Appelle watershed (Lang West, Wascana Block A, Atwater) would interact and increase the Nation's experienced impacts.</p>	



[Annex II-I: Analysis Summary Table – Brooksby Project Specific Concerns](#)

Annex I complements Annex II and includes effects and mitigation that are either specific to this network or are shared by only a subset of the nine Saskatchewan agricultural drainage network projects. Additional detail on relevant provincial authorizations is provided in Annex III.

<b>Brooksby Project</b>		
Potential Effects to Federal Jurisdiction	Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency	Relevant Legislative Mechanisms
<p>A change to fish and fish habitat, as defined in subsection 2(1) of the <i>Fisheries Act</i></p>	<p><b>Proponent</b> Saskatchewan WSA identifies fish are likely to be present.</p> <p><b>Federal and Provincial Advice</b> Due to high velocities and steep grades at the adequate outlet, the Saskatchewan WSA deemed this network to have a high risk of erosion, which imposes additional requirements. An engineer will be required to prepare a report outlining the extent of the impacts and provides recommendations to design appropriate mitigations. Additionally, plans must be submitted to Saskatchewan WSA for approval, erosion mitigation must be constructed in accordance with plans, and notification to Saskatchewan WSA is required within a certain timeframe.</p>	<p>Saskatchewan’s <i>Water Security Agency Act</i> and associated <i>Water Security Agency Regulations</i> may apply, and considers direct and indirect impacts to fish and fish habitat.</p> <p><i>Environmental Management and Protection Act, 2010</i> (EMPA 2010) provincial Drainage Regulations.</p> <p>Saskatchewan WSA’s Channelization Mitigation Policy, may apply and considers when a project includes channelization/channel alteration or a second order stream. Pursuant to this policy the Saskatchewan WSA considers how impacts from the channelization or impacts to fish habitat will be mitigated as demonstrated by the proponent.</p> <p>The Saskatchewan WSA is working with the Saskatchewan Ministry of Environment to identify opportunities for further coordination to continue to align with and support the provincial Fisheries Plan.</p> <p>The proponent is required comply with the <i>Fisheries Act</i> and may require an authorization that will have conditions when it is not possible to avoid or mitigate impacts of projects that are likely to cause death of fish or harmful alteration, disruption or destruction of fish habitat.</p>
<p>A change to migratory birds, as defined in subsection 2(1) of the</p>	<p><b>Federal and Provincial Advice</b> ECCC advised that the Brooksby Project, as proposed, is predominately cultivated but still has a number of larger wetlands. It has a low to moderate</p>	<p>The MBCA prohibits killing, harming, or collecting adults, young, and eggs of migratory birds and screens and provides regulatory responses for effects to migratory birds.</p>



<b>Brooksby Project</b>		
<b>Potential Effects to Federal Jurisdiction</b>	<b>Effects and Mitigation Proposed by the Proponent, Advice from Federal and Provincial Experts, and Public and Indigenous Concerns Known to the Agency</b>	<b>Relevant Legislative Mechanisms</b>
<i>Migratory Birds Convention Act, 1994</i>	<p>migratory bird potential and appears to be located outside of a priority conservation area.</p> <p>ECCC noted that the drainage of wetlands and associated clearing of trees and shrubs (which serve as breeding (nesting) habitats for migratory birds) may result in harm or disturb migratory birds and their nests.</p>	<p>The Saskatchewan WSA indicated that it conducts a risk analysis to consider impacts related to migratory birds and identifies appropriate mitigation requirements and enforcement responses.</p>
A change to the environment that would occur on federal lands	<p><b>Proponent, Federal and Provincial Advice</b></p> <p>No federal land parcels apparent in the network or in the vicinity of the Project and downstream pathway of flow.</p>	<p>Licences, permits and approvals required for the Project pursuant to the Saskatchewan <i>Water Security Agency Act</i>, Water Security Agency Regulations, and Agricultural Water Management Strategy would set requirements to ensure that environmental effects are localized and mitigated within provincial jurisdiction.</p>



### ANNEX III





### Annex III: Potential Provincial Authorizations Relevant to the Project

Authorization	Description
<i>Saskatchewan Water Security Agency Act</i>	The Saskatchewan Water Security Agency (WSA) is a provincial Crown corporation established to manage, administer, develop, control, and protect the water, watersheds, and related land resources of Saskatchewan. The WSA is the major regulator for water in the province, empowered with the authority of the <i>Water Security Agency Act</i> .
<i>The Water Security Agency Regulations, Section 4</i> <b>Water Rights Licence</b> <b>Approval to Construct</b> <b>Approval to Operate</b>	<p>The WSA requires that all drainage works have an approval and are operated responsibly in compliance with the conditions written in the drainage approval.</p> <p>Approvals and licences for the right to use surface water are required for the construction and operation of water supply diversion works, and for any works where water is to be diverted or impounded from or within its natural channel or bed. Works that will require approval would include irrigation projects, water supply systems, dams and reservoirs, or other water diversion schemes. By policy, any use which will consume greater than 5 cubic decameters will require an approval. Issued approvals include requirements for land controls and conditions on required maintenance and mitigation measures.</p>
<i>Environmental Management and Protection Act, 2010</i> <b>Aquatic Habitat Protection Permit</b>	A permit is required under the <i>Environmental Management and Protection Act, 2010</i> (Section 38 (4)) for works that will directly or indirectly alter the bed, bank or boundary of a watercourse or waterbody; remove, displace or add material in a watercourse or waterbody; or remove vegetation in a material in a watercourse or waterbody. The WSA integrates this permit (Aquatic Habitat Protection Permit) with drainage approvals.
Clause 7(1)(b) of <i>The Environmental Management and Protection (General) Regulations</i> (Saskatchewan)	A permit is required if pesticides are to be applied to any surface watercourse in Saskatchewan. This includes intermittent waterways and drainage ditches, even when dry, and areas up to 50 metres from the water's edge. The only exceptions are non-draining waterbodies, such as dugouts, which are wholly contained on







Authorization	Description
	<p>private land. To be exempt, such waterbodies must not discharge surface water, at any time, to adjacent properties or waterways.</p>

