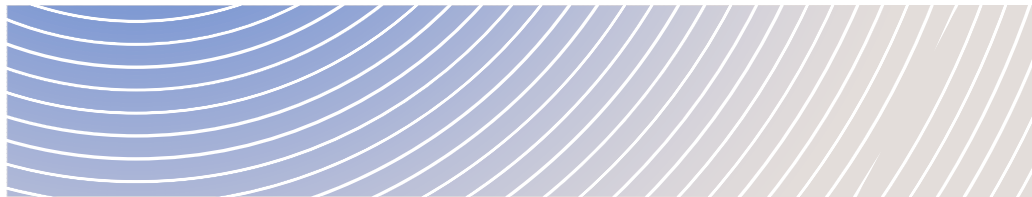


Analysis Report



WHETHER TO DESIGNATE THE LAKE DIEFENBAKER
REHABILITATION PROJECT AND EXPANSION PROJECT IN
SASKATCHEWAN PURSUANT TO THE *IMPACT ASSESSMENT
ACT*

October 2021



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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 Canada (the Minister) in deciding whether to designate the Lake Diefenbaker Rehabilitation Project and Expansion Project (the Projects) pursuant to section 9 of the *Impact Assessment Act* (IAA).

Projects

The Saskatchewan Water Security Agency (the Proponent) is proposing the construction and operation of three irrigation projects surrounding Lake Diefenbaker, Saskatchewan. The Westside Irrigation Project includes two of the three projects, i.e., the Rehabilitation Project and the Expansion Project, which are the subject of this report. The third project, the Qu'Appelle South Water Conveyance Project, based on information currently available, includes physical activities prescribed by the *Physical Activities Regulations* (see below).

Context of Request

On June 18, 2021, the Minister received a request to designate the three irrigation projects from the Federation of Sovereign Indigenous Nations (FSIN). The request expressed concerns about potential adverse effects on fish and fish habitat, species at risk, migratory birds, impacts on Indigenous people and established Aboriginal and Treaty rights, the lack of federal assessment, and the provincial process. The request also expressed concerns about impacts outside of Saskatchewan, notably in the Saskatchewan River and the Saskatchewan River Delta, which will flow into Manitoba, impacting First Nations on both sides of the border.

Other matters raised included effects to grassland ecosystems and associated species at risk, water security (particularly given climate change scenarios of drought for this region), food security, loss of lands with native habitats and associated wildlife, impacts to soils, waters, and fish habitat, loss of habitat for migratory birds, localized climatic changes due to increased irrigation, impacts to sacred sites and other cultural and heritage-sensitive areas, long-term cumulative impacts of water withdrawals and agrochemical inputs, transparency, consultation, as well as capacity and support for engagement.

Concerns were also raised that the expansion of irrigation activities in the area will cause irreparable harm to sacred areas, further limit the availability of sites used for harvesting traditional medicines and game, prejudice decision-making related to negotiations with the Saskatchewan government for Treaty Land Entitlement lands, and limit the ability of First Nations to determine the management of environmentally and culturally significant grasslands, as well as other geographical and spiritual areas of importance.

On June 30, 2021, the Agency sent a letter to the Proponent notifying them of the designation request and requesting information. In addition, the Agency requested advice and/or input from federal authorities, provincial ministries, and potentially affected Indigenous groups.



The Proponent responded on July 21, 2021, and July 29, 2021, with information about the Projects, potential adverse effects, proposed studies and design considerations, and its view that the Projects should not be designated. The Proponent stated that the Rehabilitation Project and Expansion Project are separate and distinct projects historically, spatially, financially, and temporally.

Advice on potential effects of the Projects and applicable legislative mechanisms was received from Environment and Climate Change Canada, Fisheries and Oceans Canada, Health Canada, Indigenous Services Canada, Employment and Social Development Canada, Transport Canada, Women and Gender Equality Canada, and Natural Resources Canada. The Saskatchewan Ministry of the Environment, the Ministry of Agriculture, and the Water Security Agency provided similar advice.

The Agency received input from Indigenous groups, as outlined in the impacts to rights section of this Report.

Project Context

Overview

In July 2020, the Saskatchewan Government announced the Lake Diefenbaker Irrigation Expansion Projects, consisting of the Rehabilitation Project, the Expansion Project, and the Qu'Appelle South Water Conveyance Project. The Projects are now early in the planning stage whereby conceptual engineering and environmental fieldwork began in April 2021.

The Proponent intends to irrigate up to 202 000 hectares of land from Lake Diefenbaker, more than doubling the irrigable land in Saskatchewan. Lake Diefenbaker is the largest body of water in southern Saskatchewan and was formed by the Gardiner Dam and the Qu'Appelle River Dam that were constructed between 1958 and 1967. The Lake Diefenbaker Westside Irrigation Project was originally conceived by the Prairie Farm Rehabilitation Administration and the Government of Saskatchewan during the planning and construction of Lake Diefenbaker. The Westside Irrigation Project was meant to be one of a number of irrigation projects that would be supplied by Lake Diefenbaker. Construction on the first stretch of the canal originally began in 1969, but was halted in 1973 before the canal could reach the town of Conquest. The Macrorie Water Users Association advocated to use the existing canal in the 1980s, and has since used the canal to supply water for a small 1214-hectare irrigation district.

The Environmental Assessment and Stewardship Branch (EASB) of the Saskatchewan Ministry of Environment reviews projects, upon request by the Proponent, to identify the need for provincial environmental assessment under *The Environmental Assessment Act*. A project is a “development” under section 2(d) of *The Environmental Assessment Act* if it is likely to meet one or more of the following six criteria:

- have an effect on any unique, rare or endangered feature of the environment;
- substantially use any provincial resource and in so doing pre-empt the use, or potential use, of that resource for any other purpose;
- cause the emission of any pollutants or create by-products, residual or waste products which require handling and disposal in a manner that is not regulated by any other Act or regulation;

- cause widespread public concern because of potential environmental changes;
- involve a new technology that is concerned with resource use and that may induce significant environmental change; or
- have a significant impact on the environment or necessitate a further development which is likely to have a significant impact on the development.

To date, the EASB has not received an application for review of the Projects under *The Environmental Assessment Act*. As the provincial environmental assessment review has not commenced, the Saskatchewan Ministry of Environment notes that it is unable to assess the potential impacts to the environment as a result of the Projects at this time. Should the Saskatchewan Minister of Environment determine either of the Projects are not a “development”, the Proponent may then proceed to obtain the required licences and permits, subject to any terms and conditions the Minister considers necessary. The Proponent also has the option to voluntarily self-declare a project as a “development” and proceed to initiating the environmental assessment process.

The Proponent stated that they will submit technical proposals to the EASB in January 2022: one for each of the Rehabilitation Project and the Expansion Project. At that time, the Proponent stated that they intend to “self declare” the Expansion Project as a “development” under *The Environmental Assessment Act* and, as such, the Expansion Project would proceed through the provincial environmental assessment process. The Proponent noted that the submission of the technical proposals requires the completion of sufficient engagement and consultation to identify potential issues for the terms of reference as well as the conceptual design, location, and scope.

Where the Minister’s decision to approve or refuse a development may lead to actions that have the potential to adversely impact Treaty and Aboriginal rights and the pursuit of traditional uses, the Ministry has a duty to consult with First Nations and Métis communities in advance. If the duty to consult is triggered due to potential impacts to Treaty and Aboriginal rights and traditional uses, the Government of Saskatchewan will consult on the impacts to unoccupied Crown land and on occupied Crown land where there is a right-of-access to engage in the specific activity. Lake Diefenbaker and the Saskatchewan River are bodies of water that are considered public waterbodies with a right-of-access. Therefore, any potential impacts to Aboriginal or Treaty rights in Lake Diefenbaker, or downstream of Lake Diefenbaker, would be assessed and, if triggered, the duty to consult would be completed regarding any impacts to rights exercised in those public waterbodies. The Government of Saskatchewan First Nation and Métis Consultation Policy Framework establishes the province’s policy on consultation with First Nations and Métis communities.

Components and activities

The Proponent provided information on the Projects to the Agency, noting the conceptual and early planning stages.

The Rehabilitation Project

The proposed works include:

- upgrades to the existing pumphouse in Coteau Bay using the existing pumphouse structure from a capacity of 0.7 cubic metres per second to 21-28 cubic metres per second for use during the irrigation season;
- upgrades to the canal, which was initially constructed in the 1960s, to modern standards in order to improve grade and minimize water loss due to seepage. Upgrades to the canal, infrastructure, and pump station at Coteau Bay may be sized to support the potential Expansion Project;
- approximately six kilometres of new canal to connect to the Conquest Reservoir; and
- upgrade the partially completed Conquest Reservoir to approximately 890 hectares in area.

The first project is estimated to cost \$500 million. This work will increase the amount of irrigable land by approximately 32 000 hectares in the area.

The Proponent stated that an option is to build flexibility into the Rehabilitation Project that would allow for future expansion (i.e., the Expansion Project). They indicated that there are some practical limits to what this might look like as a Rehabilitation Project canal sized to support the Expansion Project would be very wide and would provide for large evaporation losses for the Rehabilitation Project; no final decisions have been made. Options under consideration, when determined, would be provided under the Proponent's engagement process for input by First Nation and Métis, various key stakeholders, landowners, and the general public.

The Expansion Project

The Expansion Project is in the conceptual stage, with only preliminary information available to understand the Project's potential scale and scope. It will include the further expansion and buildout of the Westside Irrigation Project, adding an additional 105 000 hectares of irrigable land. Once fully built and developed, the project will eventually see land made available for irrigation near Macrorie, Milden, Zealandia, and as far north as Delisle and Asquith.

The contemplated Expansion Project components include:

- a new pumphouse and forebay at Coteau Bay with a capacity of up to 120 cubic metres per second;
- new main canal(s) or pipeline(s) to service the irrigation development zones. No routes have been chosen as of yet but there are likely corridors to the east and west of Goose Lake;
- reservoirs to provide system regulation; and
- all supporting infrastructure and ancillary facilities, including road, rail, pipeline, and powerline crossings.

The Proponent noted that no final routing, or canal options have been decided upon for the Expansion Project because assessment of the land resource in the expansion area, a fundamental input to assessing project design, location, scope, and feasibility, will not start until fall of 2021. At this time, a new canal from Coteau Bay, and expansion of the Rehabilitation Project canal and/or pipelines are possibilities under consideration to be informed by pre-feasibility and feasibility assessments and engagement. No final decisions have been made about reservoir locations. The Proponent notes that no final decisions have been made about the canal routing or reservoir locations. The Proponent's focus is on identifying any issues that could have potential adverse effects to fish and fish habitat, migratory birds, and species at risk in order to inform these decisions.

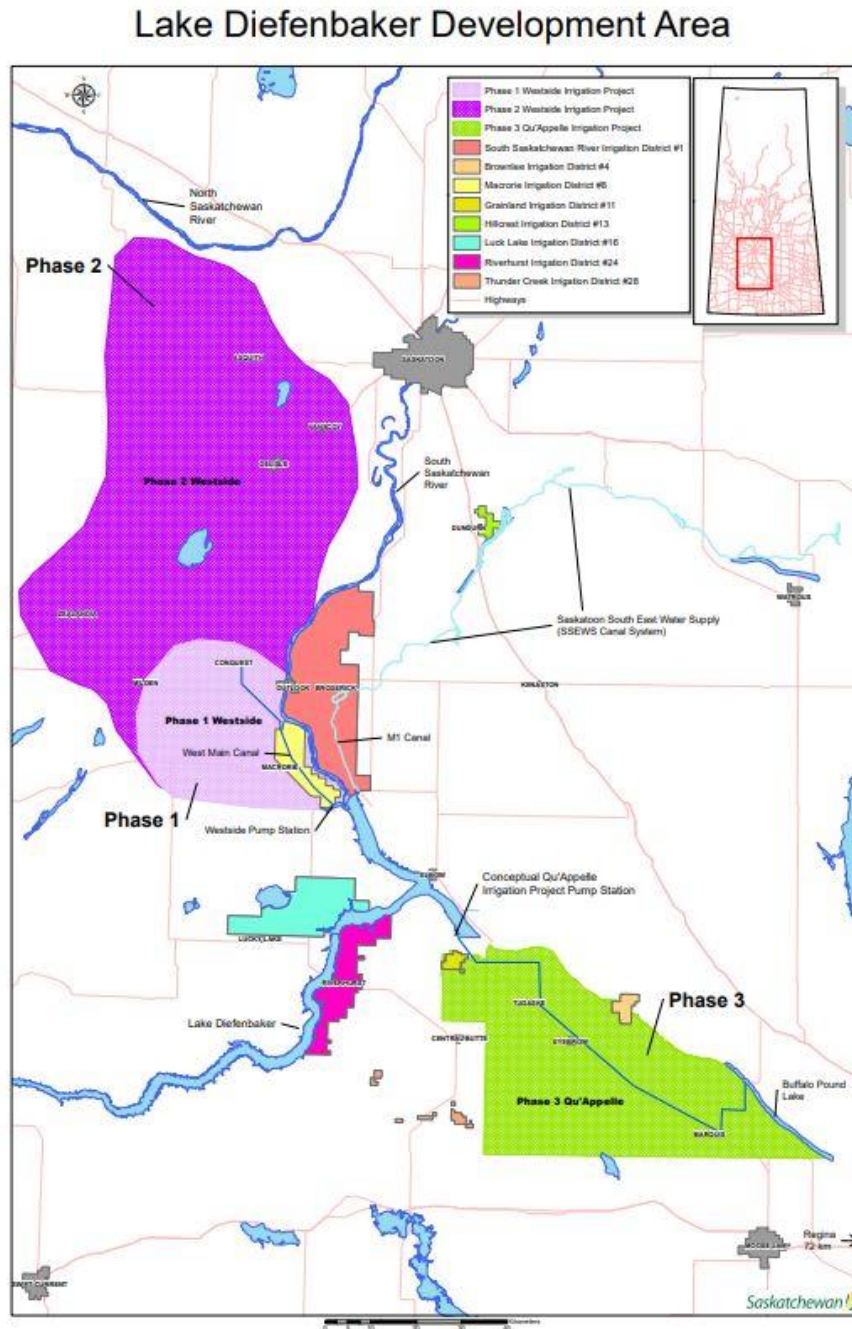


Qu'Appelle South Water Conveyance Project

The Qu'Appelle South Water Conveyance Project (the Qu'Appelle Project) would add an estimated 49 000 hectares (but could be up to 71 000 hectares) of irrigable land, with some potential residual flow into Buffalo Pound Lake, which in turn drains into the Qu'Appelle/Assiniboine systems. Starting at Lake Diefenbaker and going south, the project would run near the communities of Tugaske, Eyebrow, to Marquis, and into Buffalo Pound Lake.



Figure 1: Project Location



Source: Saskatchewan Government



Analysis of Designation Request

Authority to designate the Projects

The *Physical Activities Regulations* (the Regulations) of the *Impact Assessment Act* (IAA) identify the physical activities that constitute designated projects. The Projects, as described in the information provided by the Proponent, include the upgrade, construction, and operation of canals, reservoirs, and other works for irrigation. While irrigation projects are not described in the Regulations, various water-related items are described.

Under subsection 9(1) of IAA the Minister may, by order, designate a physical activity that is not prescribed in the Regulations. The Minister may do this, if, in the Minister's opinion, the physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation.

The most applicable entries in the Regulations are the following:

- the construction, operation, decommissioning, and abandonment of a new structure for the diversion of 10 000 000 cubic metres per year or more of water from a natural water body into another natural water body; and
- the construction, operation, decommissioning and abandonment of a new dam or dyke on a natural water body, if the new dam or dyke would result in the creation of a reservoir with a surface area that would exceed the annual mean surface area of the natural water body by 1 500 hectares or more.

The location and design of reservoirs that will be utilized are unknown for the Expansion Project. Further, the relationship between the Rehabilitation and Expansion Project are unknown. The Qu'appelle Project, given the conceptual information available to date, would be described in the Regulations.

The Agency is gathering more information with respect to the Rehabilitation Project, and is evaluating whether any limitation to the Minister's authority to designate may apply, including the potential application of paragraph 9(7)(1) on whether the carrying out of the physical activity has substantially begun. The Agency will require, under subsection 9(3), the Proponent to provide further information on the Projects once it becomes available. With respect to the Expansion Project, the Agency is of the view that the Minister may consider designation pursuant to subsection 9(1) of IAA.

Potential adverse effects within federal jurisdiction

Potential adverse effects within areas of federal jurisdiction are outlined in Annex 1.

Given the ongoing design of the Rehabilitation Project and the Expansion Project, and the fact that they are both in the conceptual and early planning stage, key information is lacking and information that is available is conceptual.

Fish and fish habitat

The requesters and Indigenous groups raised concerns about the impacts of the Projects to fish and to fish habitat. The Proponent noted that the Projects are now early in the planning stage whereby conceptual engineering and environmental fieldwork began in April 2021. The Proponent outlined the biophysical work that has been initiated to understand the potential impacts to the fish habitat in Coteau Bay, Lake Diefenbaker, and that it will inform pumphouse, forebay, and canal design and operations to minimize the impacts on fish, fish habitat and impacts from invasive species. This information is being gathered under advice from the Water Security Agency, Saskatchewan Environment, and Fisheries and Oceans Canada, who have discussed potential impacts and possible mitigations.

Field surveys are being completed in 2021 to understand the current condition of the existing works on the Rehabilitation Project section and to identify any potential adverse effects to fish and fish habitat. The Proponent will also identify any issues that could have potential adverse effects to fish and fish habitat to inform canal routing and reservoir location(s) for the Expansion Project. Once the routing and reservoir locations are established for the Expansion Project, detailed site-specific field surveys will be completed to identify potential adverse effects to fish and fish habitat and species at risk, and to determine mitigation measures.

The Proponent highlighted that initial engineering and environmental work have identified the need to make provisions for the prevention of the spread of Prussian carp and to avoid the canals or reservoirs from draining directly into a natural waterbody to prevent the spread of this invasive species.

Based on the available information at this time, Fisheries and Oceans Canada determined that the Projects may result in the harmful alteration, disruption, or destruction of fish habitat and/or death of fish, and identified potential impacts to fish and habitat. As such, the Projects may require authorization under the *Fisheries Act*. If an authorization were to be issued, it would include conditions in relation to the aforementioned effects.

Fisheries and Oceans Canada noted that it is unlikely that a permit will be required under the *Species at Risk Act* as there are currently no aquatic species at risk mapped for the project area as defined by this designation request.

Environment and Climate Change Canada indicated that activities associated with construction and operation of canals and pipelines may have negative impacts on the quality of surface water (e.g., deposition of contaminants, sedimentation). As well, hydrological regimes of watercourses and water bodies, may be impacted, with consequent effects on water quality (e.g., reduced dilution capacity downstream). Water impoundments may result in mobilization of mercury. Adverse effects to water quality could, in turn, result in adverse effects to sensitive ecosystem receptors, such as fish and fish habitat. These adverse effects could be reduced through mitigation measures.

Although potential effects in areas of federal jurisdiction have been identified, both the Rehabilitation Project and the Expansion Project are in the early planning and conceptual stage of development. Given that important design decisions have yet to be made (e.g., as the extent of rehabilitation work, the routing and expansion of canals and pipelines, and the number and location of reservoirs), the information needed to assess the potential adverse effects in areas of federal jurisdiction, adverse impacts on section 35 rights, and mitigation measures is unavailable. The ongoing design work must progress further before this information becomes available.

Migratory birds

The requesters and Indigenous groups raised concerns about the impacts of the Projects to migratory birds. The Proponent stated that, with respect to the Rehabilitation Project, bird-related field surveys being completed in 2021 include spring and fall migratory birds. On the Expansion Project, the focus is on identifying any issues that could have potential adverse effects to migratory birds and species at risk in order to inform canal routing and reservoir location(s) decisions. This includes validating land cover to identify areas of native habitat and other areas that could provide habitat for species at risk. Once the routing and reservoir locations are established for the Expansion Project, detailed site-specific field surveys will be done to document that any potential adverse effects to migratory birds and species at risk have been identified and mitigations proposed.

Project activities may cause habitat loss, alteration, and fragmentation; direct and indirect mortality; wetland loss, reduction, alteration, or change in wetland function (which will have an effect on wildlife); sensory disturbance and functional habitat loss; and introduction of invasive species. Environment and Climate Change Canada noted that wildlife resources in the immediate or surrounding area of proposed project sites, including migratory birds protected under the *Migratory Birds Convention Act* and non-aquatic species at risk protected under the *Species at Risk Act*, may be negatively impacted if appropriate mitigation measures (e.g., minimizing project footprint) are not applied.

Environment and Climate Change Canada provided information on migratory bird species listed on Schedule 1 of the *Species at Risk Act* which have ranges that intersect the project area, and identified critical habitat for several of these species.

Environment and Climate Change Canada noted that the Projects have the potential to contribute indirectly to the loss of native prairie habitat, one of the most endangered ecosystems in the world. Further, they noted that the conversion and use of the land for crops are likely to have a large detrimental effect on many already declining grassland bird populations, including migratory birds, in the region that are listed on the *Species at Risk Act*. The Saskatchewan Ministry of Agriculture, Lands Branch indicated that they review for federally designated critical habitat and apply the *Saskatchewan Activity Restriction Guidelines for Sensitive Species*. They also indicated that they will not approve the breaking of native prairie for development.

For species listed in Schedule 1 of the *Species at Risk Act* as extirpated, endangered, or threatened, a permit may be required from Environment and Climate Change Canada for activities that affect a listed terrestrial wildlife species, any part of its critical habitat, or the residences of its individuals, where those prohibitions are in place.

Environment and Climate Change Canada notes that the Expansion Project area includes Goose Lake, which is considered a Migratory Bird Concentration Site for moulting/staging. The Proponent outlined that their initial engineering and environmental work have identified the need to avoid the enclosed saline Goose Lake.

Environment and Climate Change Canada noted that due to the scale of the proposed Project, impacts may occur outside of the project area, particularly in the Saskatchewan River Delta to the northeast, along the border with Manitoba. The Delta also includes two of Canada's Important Bird Areas, one is



located in Saskatchewan and one in Manitoba. The Delta is an important ecological feature, has importance to Indigenous communities, and is the subject of conservation interest from various parties, including the Cumberland House Cree Nation. The Canadian Parks and Wilderness Society - Saskatchewan and the Cumberland House Cree Nation are jointly proposing the establishment of an Ecological Reserve to protect the Saskatchewan River Delta and surrounding area to conserve biodiversity and traditional cultural practices for local communities. This project is part of Canada's Canada Target 1 Challenge, an investment by the federal government to increase Canada's protected and conserved areas by 25 percent by 2025.

Although potential effects in areas of federal jurisdiction have been identified, both the Rehabilitation Project and the Expansion Project are in the early planning and conceptual stage of development. Given that important design decisions have yet to be made (e.g., as the extent of rehabilitation work, the routing and expansion of canals and pipelines, and the number and location of reservoirs), the information needed to assess the potential adverse effects in areas of federal jurisdiction, adverse impacts on section 35 rights, and mitigation measures is unavailable. The ongoing design work must progress further before this information becomes available.

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

The Oldman and Bow Rivers begin in the Rocky Mountains in Alberta and join the Red Deer River to become the South Saskatchewan River at the Alberta-Saskatchewan border. From there, the South Saskatchewan River travels northeast, becoming Lake Diefenbaker. From the northern shores of Lake Diefenbaker, the river flows out of the Gardiner Dam towards the City of Saskatoon. The river continues north to eventually become the Saskatchewan River at the confluence of the North and South Saskatchewan Rivers, and passes through the Saskatchewan Delta, into Lake Winnipeg, Manitoba.

The Proponent stated that they are not aware of any adverse changes to the environment that would occur on federal lands or lands outside Saskatchewan or Canada, based on the Projects as currently envisioned. No federal land has been identified for the Rehabilitation Project. One block of federal land has been identified in the area of the Expansion Project: 110 hectares of a National Wildlife Reserve that they would avoid in their canal design.

Environment and Climate Change Canada notes that the proposed area of the Expansion Project contains Prairie National Wildlife Area Units 8, 9, 12, and 13. Under the *Canada Wildlife Act*, National Wildlife Areas (NWAs) are protected and managed in accordance with the Wildlife Area Regulations.

Environment and Climate Change Canada indicated that the Projects may impact water availability for both ecological and human needs in the downstream sections of the Saskatchewan River, including into the province of Manitoba. Irrigation and canals increase the amount of water that is lost to evapotranspiration compared to the natural environment, particularly in low water availability conditions when irrigation demand is highest. In addition, low water availability is projected to be a serious issue for all Prairie provinces due to climate change. Furthermore, the project could have impacts on The Pas - Saskatchewan River Delta Important Bird Area, located in Manitoba.

The requesters and Indigenous groups noted that the Projects are connected to the Saskatchewan River systems and have the potential to impact a large area of the province and into Manitoba. The Proponent acknowledged the concerns of the FSIN, Cumberland House First Nation, and others regarding the



potential downstream impacts, especially to the Saskatchewan River Delta. For both the Rehabilitation Project and Expansion Project, the Proponent indicated that they will be undertaking hydrologic modelling to determine whether there will be impacts to the flow regimes downstream of Lake Diefenbaker.

The Proponent stated that any hydrological modelling for the Rehabilitation Project and Expansion Project will need to stay within the requirements of the Prairie Provinces Water Board and both the Master Agreement on Apportionment and the Water Quality Agreement between Alberta, Saskatchewan, and Manitoba. Water allocations must be managed so that Saskatchewan will meet its obligation that 50 percent of the estimated median annual flow of watersheds that are part of an interprovincial or international basin must be provided to the receiving jurisdiction (Manitoba, in the case of Saskatchewan). Any allocations made for the purpose of diversion and consumption of water as a resource in Saskatchewan must ensure that these downstream obligations to Manitoba are able to be met.

The Proponent noted they will demonstrate compliance with the water allocation obligations in the submissions to the EASB, considering a number of variables, including water supply and availability, climate change, natural variability, water quality including agricultural inputs, minimum flows for the protection of downstream users and wildlife, and others as identified during their studies or through their engagement and consultation processes.

The Environment and Climate Change Canada Transboundary Waters Unit advised that environmental assessment of the Projects would ensure a wide range of issues are considered and likely result in a more robust project. The Project may be located in one jurisdiction, but it is within a larger transboundary watershed.

Environment and Climate Change Canada has been notified that the Prairie Provinces Water Board does not yet have a position on the Projects, nor plans for technical assessments. The Prairie Provinces Water Board is still considering the implications of the Projects and are having discussions related to the project water supply requirements, downstream water quality, and climate change/future drought impacts on surface and groundwater supplies.

The Agency is unable to assess the potential magnitude of any possible transboundary effects because the Projects are in the conceptual stage of development. The causal pathways between the Projects and possible downstream effects in Manitoba are complex and require more information about the Projects that will only become available once the Projects move past the early planning and conceptual design stage.

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 raised concerns to the Agency that the Projects may cause harm to cultural and sacred sites, including gravesites, and impact the Saskatchewan River watershed, which is an integral component of their identity. Furthermore, they are concerned that the Projects, among other things, will negatively impact culturally significant species, access to lands on which traditional uses are practiced, impact water and food security, and impact the transmission of traditional knowledge.

Indigenous groups also raised concerns that many of the cultural and sacred sites are located on private land, therefore not accessible to the First Nations, who are thus unable to assess the importance of the impacts.

The Proponent stated that it is undertaking an initial heritage resources program to identify areas of potential concern for archaeological, paleontological, historical, and other cultural items or areas based on existing information and limited field reconnaissance. Noting that they have just begun the process of engagement with Indigenous communities, the program will inform the initial design and routing of the Projects and demonstrate compliance with Saskatchewan's *Heritage Property Act*. The Proponent noted that on June 30, 2021, they met with the Saskatchewan First Nations Natural Resource Centre of Excellence who requested involvement with the site-specific field verification of the Expansion Project components in order to avoid disturbance of graves or other important cultural values, including the use of ground-penetrating radar.

The Proponent also outlined the following examples of concerns received from Indigenous groups in their initial consultations:

- the protection and use of water and potential downstream impacts that may negatively affect their rights and interests, including, but not limited to, maintenance flows, potential impacts to the Saskatchewan River delta and return water quality, climate change, and cumulative impacts;
- the potential impacts to sacred sites and other cultural and heritage sensitive areas;
- impacts to soils, waters, fish habitat, loss of habitat for migratory birds; and
- localized climatic changes due to increased irrigation.

Although potential effects in areas of federal jurisdiction have been identified, both the Rehabilitation Project and the Expansion Project are in the early planning and conceptual stage of development. Given that important design decisions have yet to be made (e.g., as the extent of rehabilitation work, the routing and expansion of canals and pipelines, and the number and location of reservoirs), the information needed to assess the potential adverse effects in areas of federal jurisdiction, adverse impacts on section 35 rights, and mitigation measures is unavailable. The ongoing design work must progress further before this information becomes available.

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

Health Canada indicated that the current information is not sufficient to confirm whether there exists a potential for adverse effects on human health within federal jurisdiction.

Environment and Climate Change Canada noted that the construction of canals and pipelines requires the use of on-road vehicles and mobile off-road equipment, which has the potential to adversely affect air quality. Emission of air pollutants can result in local or regional degradation of ambient air quality, with potential impacts on human health. Their submission also indicated that the Project may impact water availability for both ecological and human needs in the downstream sections of the Saskatchewan River, including into the province of Manitoba.

The Proponent noted that through engagement processes they will identify any potential adverse impacts from the Projects on Indigenous peoples' rights and interests, including potential impacts to health, social, or economic conditions.

The Proponent outlined that the Saskatchewan Government has an economic group and procurement policies that will focus on the potential for jobs and other economic opportunities for both Indigenous and non-Indigenous businesses. The Proponent also indicated that Saskatchewan has many First Nation and Métis groups that have businesses and partnerships that could benefit from the Projects.

In addition to concerns related to water availability and water security (including drinking water), loss of access to lands with impacts to food security and ability to harvest traditional medicines were identified. Indigenous groups identified that the Projects may impact the ability to grow economic participation in the broader economy, including reduced access to and availability of land, which may limit economic opportunities and agricultural lands for their own use. The potential that some of their businesses and partnerships could benefit from the project was noted.

Although potential effects in areas of federal jurisdiction have been identified, both the Rehabilitation Project and the Expansion Project are in the early planning and conceptual stage of development. Given that important design decisions have yet to be made (e.g., as the extent of rehabilitation work, the routing and expansion of canals and pipelines, and the number and location of reservoirs), the information needed to assess the potential adverse effects in areas of federal jurisdiction, adverse impacts on section 35 rights, and mitigation measures is unavailable. The ongoing design work must progress further before this information becomes available

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 require the exercise of the following federal powers, duties, or functions:

- *Fisheries Act* authorizations for the harmful alteration, disruption, or destruction to fish habitat; or for the death of fish;
- *Canadian Navigable Waters Act* approval with respect to water intake structures;
- *Canada Wildlife Act* permits for activities in a National Wildlife Area;
- *Species at Risk Act* permit for activities that affect a listed terrestrial species; and
- *Explosives Act* licence for the manufacture or storage of explosives.

The Proponent did not identify a requirement for financial assistance from a federal authority for the Projects.

Additional information on potential federal authorizations or approvals are listed in Appendix II.

The Projects may require the exercise of federal powers, duties, or functions to proceed; therefore, adverse direct or incidental effects are possible. Project design information, such as the routing of the canals and pipelines, number and location of reservoirs is required to understand the extent to which potential direct and incidental effects could be addressed. This information will only become available once the Projects advance further in their planning and design.

Public concerns

The Minister must consider if the public concerns related to adverse effects within federal jurisdiction, or adverse direct or incidental effects, warrant the designation of the Projects.

Concerns related to effects on areas of federal jurisdiction were expressed to the Agency by the requester, other Indigenous groups, and a member of the public; these are described in the previous section, *Potential adverse effects within areas of federal jurisdiction*.

Other concerns, outside of areas of federal jurisdiction, identified by Indigenous groups include:

- large and complex project for which there is a lack of project details;
- Proponent is an agency of the Province of Saskatchewan, regulated under the Ministry of Environment, posing real or perceived conflicts of interest regarding project approval and construction;
- short time frames of the designation request process and lack of capacity funding;
- the Government of Saskatchewan is moving ahead with the initial phases of the Project without properly consulting Indigenous groups; conversations with First Nations have been minimal and no consultation plan for this significant project has been shared with our First Nations;
- lack of human or financial resources, including core capacity funding, to participate in consultation and assessment,
- the lack of meaningful participation may prejudice future negotiations for Treaty Land Entitlement Lands by excluding agricultural lands what would enable our people to fulfill the Treaty legacy of becoming self-sufficient farmers; and jeopardize former designated lands within the Prairie Farm Rehabilitation Areas and the ability for First Nation's participation in the co-management of these spiritually significant grasslands;
- limitations of the provincial consultation and environmental assessment processes;
- loss of lands with native habitats, including endangered grassland ecosystems, and associated wildlife, and habitat fragmentation;
- impacts to soils;
- impacts to water from irrigation runoff;
- water management decisions that prioritize industrial and agricultural allocations over ecosystems;
- localized climatic changes due to increased irrigation; and
- impact to the Delta's ecosystems which store billions of tonnes of carbon in a vast peatland and boreal forest ecosystem, acting as a critical natural storehouse for carbon and a buffer against climate change.

Saskatchewan Ministry of Environment indicated that they have not received direct comments from the general public in relation to the Projects but they are aware of public concern raised through local media coverage since the project was announced in July 2020. Concerns raised to date have been related to: lack of consultation; use of additional water for irrigation purposes; availability of water under future climate change scenarios; losses in power generation from the Gardiner dam; financial investment associated with the projects; reduction in flows to the Saskatchewan River Delta and associated impacts to wildlife habitat; impacts to native prairie grassland; transboundary effects; and, reduced downstream flows impacting the Lower Qu'Appelle River Watershed.

Potential adverse impacts on the rights of Indigenous peoples

The Agency understands that there is the potential for the Projects to cause adverse impacts on rights that are recognized and affirmed by section 35 of the *Constitution Act, 1982* (section 35 rights). Potential adverse effects within federal jurisdiction, that could impact section 35 rights for the Projects, are outlined in Annex 1. In conducting this analysis, the Agency considered potential impacts to and sought input from: Métis Nation – Saskatchewan, Little Pine First Nation, Mosquito Grizzly Bear's Head Lean Man First Nation, Poundmake Cree Nation, Red Pheasant Cree Nation, Sweetgrass First Nation, and Whitecap Dakota First Nation.

The Agency received input from:

- Battle River Indian Resource Council (which included comments from Moosomin First Nation, Lucky Man Cree Nation, and Little Pine First Nation);
- the Battlefords Agency Tribal Chiefs (which include Ahtahkakoop Cree Nation, Moosomin First Nation, Saulteaux First Nation, Sweetgrass First Nation, Red Pheasant Cree Nation, Mosquito Grizzly Bears Head Lean Man First Nation, and Stoney Knoll First Nation);
- Little Pine First Nation;
- Sweetgrass First Nation;
- Whitecap Dakota First Nation; and
- Métis Nation.

In addition, the Agency notified the following Nations of the analysis conducted by the Agency and of the possibility to send input: Cowessess First Nation, Kahkewistahaw First Nation, Muscowpetung Saulteaux Nation, Ochapowace Nation, Pasqua First Nation, Piapot First Nation, Standing Buffalo Dakota Nation, and Zagime Anishinabek First Nation. Information was received from three groups, as the Agency was carbon copied to a letter sent from them to the province and the Proponent: the Piapot First Nation, Standing Buffalo Dakota Nation, and the Pasqua First Nation. Additional information was received from the Lucky Man Cree Nation, the Makwa Sahgaiehcan First Nation, the Peter Ballantyne Cree Nation, and the Okanese First Nation. Comments from the Battle River Indian Resource Council and the Cumberland House Cree Nation that were received before the designation request were also considered.

Indigenous groups identified the following potential impacts and concerns related to their rights:

- separating the review and assessment processes of the Projects;
- land taken for the Projects will cause harm to sacred areas and other cultural and heritage-sensitive areas;
- reduced access and availability of land used for traditional activities, including land used for harvesting traditional medicines and game;
- reduced availability of culturally significant species, including fish, waterfowl, migratory birds, and caribou, due to the impact the project will have on the availability and quality of water;
- impact on the transmission of traditional knowledge; and
- cumulative effects on the exercise of section 35 rights of Indigenous peoples of Canada.



The Proponent stated that the Projects will be informed by Indigenous groups through a robust engagement and consultation process if potential impacts to rights and interests are identified through those processes. They will undertake pre-consultation assessments to determine the appropriate level and method of consultation, in accordance with the Government of Saskatchewan First Nation and Métis Consultation Policy Framework. The Proponent has begun its pre-consultation assessment for the Rehabilitation project. The Proponent provided a project introduction letter and information package on May 28, 2021.

As noted previously, given the early stage of project design, it is unclear the extent to which the potential adverse effects within federal jurisdiction and adverse direct or incidental effects could be addressed through project design by the Proponent and applicable regulatory processes. In turn, the extent to which any design or mitigation could address impacts to section 35 rights that are related to areas of federal jurisdiction, is unknown. The Agency is aware that consultations between Indigenous groups and the Proponent are at an early stage, and that there is insufficient knowledge of the Projects' design and potential mitigation to determine potential impact on section 35 rights, or the ability of provincial regulatory agencies to address these.

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 the Projects.

Conclusion

The Agency considered information provided by the Proponent, relevant federal and provincial authorities, the requesters, Indigenous groups, and the public. Although potential effects, as described in subsection 9(1) of the IAA, have been identified, both the Rehabilitation Project and the Expansion Project are in the conceptual stage of development. The ongoing work would inform design that could minimize effects in areas of federal jurisdiction (e.g., the extent of rehabilitation work, the routing and expansion of canals and pipelines, and the number and location of reservoirs), as well as possible mitigation measures. The Agency is aware that consultations between Indigenous groups and the Proponent are at an early stage, and that there is insufficient knowledge of the Projects' design and potential mitigation to determine potential impact on section 35 rights, or the ability of provincial regulatory agencies to address these.

ANNEX I

Annex I: Analysis Summary Table

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	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><u>Proponent</u> The Projects are now early in the planning stage whereby conceptual engineering and environmental fieldwork began in April 2021.</p> <p><u>Pump house construction and operation</u> Biophysical work has been initiated to understand the potential impacts to the fish habitat in Coteau Bay, Lake Diefenbaker as it may be affected by the pumphouse work and operation. This information is being gathered under advice from the WSA, Saskatchewan Environment, and Fisheries and Oceans Canada who have discussed potential impacts and possible mitigations. The information from the aquatic and fisheries work will inform pumphouse, forebay, and canal design and operations to minimize the impacts on fish, fish habitat and impacts from invasive species.</p> <p><u>Canal Route</u> To understand the current condition of the existing works on the Rehabilitation Project section and identify any potential adverse effects to fish and fish habitat that might be impacted by the Projects, field surveys being completed in 2021 include: fisheries and fish habitat, aerial and ground-based wetland/landcover validation. On the Expansion Project, where no final decisions have been made about the canal routing or reservoir locations, the focus is on identifying any issues that could have potential adverse effects to fish and fish habitat, and species at risk in order to inform canal routing and reservoir location(s) decisions. This includes validating land cover to identify areas of native habitat and other areas that could provide habitat for species at risk. Once the routing and reservoir locations are established</p>	<p>A <i>Fisheries Act</i> paragraph 35(2)(b) Authorization will be required if the project is likely to cause the harmful alteration, disruption, or destruction to fish habitat and/or a <i>Fisheries Act</i> paragraph 34.4(2)(b) Authorization if the project is likely to result in the death of fish.</p> <p>ECCC administers Section 36(3) of the <i>Fisheries Act</i>, which prohibits the deposit of deleterious substances into waters frequented by fish, unless the deposit is authorized by regulations.</p> <p>Provincial Environmental Assessment Approval under <i>The Environmental Assessment Act</i></p> <p>The Water Rights, Allocation and Approval of Water Diversion Works include the following: the Water Rights Licence; the Approval to Construct, the Approval to</p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>for the Expansion Project, detailed site-specific field surveys will be done to document that any potential adverse effects to fish and fish habitat and species at risk have been identified and mitigations proposed. This information will be available publicly either in summary form in the Technical Proposals or in detailed form in the EIA.</p> <p>Initial engineering and environmental work have identified the need to make provisions for the prevention of the spread of Prussian carp and to avoid the canals or reservoirs from draining directly into a natural waterbody to prevent the spread of this invasive species.</p> <p><u>Fisheries and Oceans Canada (DFO)</u></p> <p>It is probable that Fisheries and Oceans Canada will need to issue a <i>Fisheries Act</i> Authorization related to this project for it to proceed.</p> <p>Based on the available project information, DFO determined that the Project may result in the harmful alteration, disruption or destruction of fish habitat and/or death of fish. The potential impacts to fish and habitat include:</p> <ul style="list-style-type: none"> • death of fish resulting from entrainment at Lake Diefenbaker; • death of fish related to impingement on screens; • death of fish resulting from stranding when flows are terminated in the fall in canals from Lake Diefenbaker; and • harmful alteration, disruption or destruction of fish habitat when canals are dewatered. <p>As such, the Project may require authorization under the <i>Fisheries Act</i>. If an authorization were to be issued, it would include conditions in relation to the aforementioned effects. The Proponent has submitted a Request for Review.</p> <p><u>Environment and Climate Change Canada (ECCC)</u></p>	<p>Operate and the Permit to Conduct Ground Water investigation. These licences and permits are issued by WSA under the <i>Water Security Agency Act</i>.</p> <p>Fish Collection and Salvage Permits under <i>The Fisheries Act (Saskatchewan)</i> and <i>The Fisheries Regulations</i>: conditions of these permits would specifically mitigate concerns related to collection methods, release, aquatic invasive species and disease, species at risk and data collection/ reporting.</p> <p>Aquatic Habitat Protection Permit issued by WSA pursuant to <i>The Environmental Management and Protection Act, 2010</i>: conditions would address erosion, deposition of deleterious substances, sedimentation, sanitation, and secondary containment.</p> <p>Reservoir Development Areas Permits. The WSA regulations control land use immediately adjacent to the reservoirs and a permit is required for lands</p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>Adverse effects to water quality could, in turn, result in adverse effects to sensitive ecosystem receptors, such as fish and fish habitat (as well as migratory birds, plants and wildlife). These adverse effects could be reduced through mitigation measures.</p> <p>Activities associated with construction and operation of canals and pipelines may have negative impacts on the quality of surface water, as well as the hydrological regimes of watercourses and water bodies. Activities that could result in a deposit of contaminants to surface waters include watercourse crossings, hydrostatic tests, access road and right-of-way construction and maintenance, and excavation or movement of soils, sediments or rocks. Disturbance of soils, rock, streambanks, and streambeds during construction or operation may cause erosion/ sedimentation leading to mobilization and deposition of sediments in surface waters and elevated levels of total suspended solids.</p> <p>In addition, impacts to surface water quality could result through runoff, wastewater discharge, groundwater resurgence, and unexpected events, such as a spill. Surface water quality may be degraded by increased runoff/ mobilization of agricultural chemicals (e.g., pesticides, herbicides, fertilizers), wastes (e.g., manure, wastewater), and other contaminants due to agricultural and industrial expansion. Water impoundments may result in mobilization of mercury.</p> <p>Water quality may also be degraded by hydrological changes. If downstream dilution capacity is reduced, contaminant concentrations in surface water from existing downstream inputs (such as any municipal and industrial sources) could increase.</p> <p><u>Province</u></p> <p>To date, the EASB has not received an application for review of the Projects under <i>The Environmental Assessment Act</i>. As the provincial environmental assessment review has not commenced, the Ministry notes that it is unable to assess the potential impacts to the environment as a result of the Projects at this time.</p>	<p>surrounding the following reservoir: Avonlea Creek, Blackstrap, Bradwell, Brightwater, Dellwood, Lake Diefenbaker and Zelma RDAs.</p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p><u>Indigenous groups and public</u></p> <p>Indigenous groups raised concerns that the projects may adversely impact:</p> <ul style="list-style-type: none"> • water quality - all proposed phases could have effect on water quality in southern and central Saskatchewan and other provinces due, among other things, to agrochemical inputs; • water quantity in Saskatchewan and other provinces. Additional water from the South Saskatchewan River could be lost due to evapotranspiration. The Métis Nation of Saskatchewan estimated that up to 30 percent of the total water diversion could be lost; • water levels and water flow; • local and regional shallow groundwater flow regimes; and • fish and fish habitat, resulting from change to water quality and quantity. <p>The Indigenous groups were also concerned about the cumulative effects of the Projects given the region and, in particular that the Saskatchewan River, is already impacted by agriculture, industrial activities, dams and reservoirs.</p>	
<p>A change to aquatic species, 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 the Project and the marine environment.</p> <p>Fisheries and Oceans Canada reviews projects for effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the <i>Species at Risk Act</i>.</p> <p>DFO noted that it is unlikely that a permit will be required under the Species at Risk Act as there are currently no aquatic species at risk mapped for the project area as defined by this designation request (the Rehabilitation Project or the Expansion Project).</p>	<p>Sections 32, 33, and 58(1) of the <i>Species at Risk Act</i></p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
<p>A change to migratory birds, as defined in subsection 2(1) of the <i>Migratory Birds Convention Act, 1994</i></p>	<p><u>Proponent</u></p> <p>The Projects are now early in the planning stage whereby conceptual engineering and environmental fieldwork began in April 2021.</p> <p>To understand the current condition of the existing works on the Rehabilitation Project section and identify any potential adverse effects to migratory birds that might be impacted by the Projects, field surveys being completed in 2021 include: spring and fall migratory birds, breeding birds, raptors, common nighthawk, short eared owl, piping plover, aerial and ground-based wetland/landcover validation.</p> <p>On the Expansion Project, where no final decisions have been made about the canal routing or reservoir locations, the focus is on identifying any issues that could have potential adverse effects to migratory birds and species at risk in order to inform canal routing and reservoir location(s) decisions. This includes validating land cover to identify areas of native habitat and other areas that could provide habitat for species at risk. Once the routing and reservoir locations are established for the Expansion Project detailed site-specific field surveys will be done to document that any potential adverse effects to migratory birds and species at risk have been identified and mitigations proposed. This information will be available publicly either in summary form in the Technical Proposals or in detailed form in the EIA. Initial engineering and environmental work have identified the need to avoid the enclosed saline Goose Lake, which is a habitat for migrating birds.</p> <p><u>Environment and Climate Change Canada</u></p> <p>Activities associated with the construction, operation, closure and dismantling of canals and pipelines can cause temporary and permanent negative impacts to terrestrial wildlife resources (wildlife). Wildlife resources in the immediate or surrounding area of proposed project sites, including migratory birds protected under the <i>Migratory Birds Convention Act</i> and non-aquatic species at risk</p>	<p>Permitting requirements under the <i>Species at Risk Act</i> for migratory bird species at risk may be applicable under a specific set of circumstances, as described in section 73 of the <i>Species at Risk Act</i>. Prohibitions are in place for the migratory birds, their nests, eggs, and habitat (including native prairie grassland) under the <i>Migratory Birds Convention Act 1994</i>, wherever they occur regardless of land tenure.</p> <p>The Saskatchewan Ministry of Agriculture, Lands Branch indicated that, under the Provincial Lands (Agriculture) Regulations, they have to authorize or provide a disposition for projects that are located on or adjacent to Agricultural Crown land. Before authorizing or providing disposition for those projects, they review for federally designated critical habitat and apply the <i>Saskatchewan Activity Restriction Guidelines for Sensitive Species</i>.</p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>protected under the <i>Species at Risk Act</i>, may be negatively impacted if appropriate mitigation measures are not applied.</p> <p><u>Species at Risk</u></p> <p>Migratory Bird species potentially impacted by the projects and identified by ECCC include, the Bank Swallow, the Ferruginous Hawk, the Piping Plover <i>circumcinctus</i> subspecies, the Gibson's big sand tiger beetle, the Alkaline Wing-nerved Moss, the Smooth Goosefoot, the Slender Mouse-ear-cress, and the Small-flowered sand-verbena.</p> <p>Mitigation measures may include, but are not limited to: minimizing the project footprint; minimizing the duration of construction; planning the project timing to reduce overlap with species' use of the area; restoring vegetation; and managing weeds. Project activities can cause habitat loss, alteration, and fragmentation; direct and indirect mortality; wetland loss, reduction, alteration, or change in wetland function (which will have an effect on wildlife); sensory disturbance and functional habitat loss; and introduction of invasive species.</p> <p>For species listed in Schedule 1 of the <i>Species at Risk Act</i> as Extirpated, Endangered or Threatened, a permit may be required from Environment and Climate Change Canada (section 73 of SARA) for activities that affect a listed terrestrial wildlife species, any part of its critical habitat, or the residences of its individuals, where those prohibitions are in place. Such permits may only be issued: if all reasonable alternatives to the activity that would reduce the impact on the species have been considered and the best solution has been adopted; all feasible measures will be taken to minimize the impact of the activity on the species or its critical habitat or the residences of its individuals; and if the activity will not jeopardize the survival or recovery of the species. Permits are also required by those persons conducting activities that contravene the critical habitat destruction prohibitions (subsection 58(1)).</p> <p>Prohibitions are in place for individuals and residences on federal lands in a province, reserve or any other lands under the <i>Indian Act</i>, or lands under the</p>	

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>authority of the Minister of the Environment, and for birds listed under the <i>Migratory Birds Convention Act, 1994</i> wherever they occur regardless of land tenure.</p> <p>Furthermore, prohibitions may be in force on land other than federal land pursuant to other orders or regulations under SARA. It is possible that further prohibitions may come into force in the future through orders in Council for individuals, residences and critical habitat on non-federal lands and / or through ministerial order for critical habitat on federal lands. It is also possible that, over the course of the assessment or after the assessment, additional species could be listed under SARA; permits may be required for Project activities that affect these additional species. Examples of activities that could require a <i>Species at Risk Act</i> permit include:</p> <ul style="list-style-type: none"> • species surveys that would affect individuals or residences; • site preparation (clearing, grubbing, site access, staging, blasting); • construction and operation of temporary and permanent works and infrastructure; • creation of new roads, rail lines, or power lines; • infilling of wetlands or watercourses; • any monitoring that requires capture/release of individuals; and • sensory disturbance effects (artificial lighting, noise, vibration, human activity, vehicular traffic). <p>ECCC advised that it will require detailed information on the potential effects of the Project, including locations and/or occurrences of species at risk, their use of habitat and critical habitat within the Project area, and specific effects on federal land, before ECCC can determine whether a SARA permit is required.</p> <p><u>Province</u></p>	

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>To date, the EASB has not received an application for review of the Projects under <i>The Environmental Assessment Act</i>. As the provincial environmental assessment review has not commenced, the Ministry notes that it is unable to assess the potential impacts to the environment as a result of the Projects at this time.</p> <p>The Saskatchewan Ministry of Agriculture, Lands Branch indicated that they review for federally designated critical habitat and apply <i>the Saskatchewan Activity Restriction Guidelines for Sensitive Species</i>. They also indicated that they will not approve the breaking of native prairie for development.</p> <p><u>Indigenous groups and public</u></p> <p>Indigenous groups raised concerns that the projects may cause:</p> <ul style="list-style-type: none"> • loss of habitat for migratory birds, including wetlands and endangered grassland ecosystems; • loss of habitat for waterfowl; and • habitat fragmentation. 	
<p>A change to the environment that would occur on federal lands</p>	<p><u>Proponent</u></p> <p>No federal land has been identified for the Rehabilitation Project.</p> <p>Currently, only one block of federal land has been identified in the Expansion Project area: a National Wildlife Reserve (110 hectares) within the Zealandia irrigation block (see Figure 1). This identification of a National Wildlife Reserve area is an example of identifying land areas to be avoided in the canal design. National Wildlife Reserves and other sensitive terrains are being identified now so that they can be avoided through siting and design.</p> <p><u>Environment and Climate Change Canada</u></p>	<p>Under the <i>Canada Wildlife Act</i>, National Wildlife Areas (NWAs) are protected and managed in accordance with the Wildlife Area Regulations. For this purpose and according to the legislation, all activities in a NWA that could interfere with the conservation of wildlife can be prohibited. Access to Prairie NWA is not restricted and activities may be permitted in accordance with the</p>

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	<p>The proposed boundary of Phase 2 of the Project (Westside) contains Prairie National Wildlife Area Units 8, 9, 12, 13. Phase 2 (Westside) also includes Goose Lake, which is considered a Migratory Bird Concentration Site for moulting/staging. The primary purpose of NWAs is to protection and conserve wildlife and their habitat.</p>	<p>conservation objectives of the NWA management plan.</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>Greenhouse gases</p>	<p><u>Proponent</u></p> <p>For both the Rehabilitation Project and Expansion Project Projects, the Proponent indicated that they will be undertaking hydrologic modelling to determine whether there will be impacts to the flow regimes downstream of Lake Diefenbaker. They acknowledged the concerns of the requester, Cumberland House First Nation, and others regarding the potential downstream impacts especially to the Saskatchewan River Delta. They will examine the hydrologic regime to better understand impacts from the Projects. This includes examining water availability, the potential impacts from climate change, variations in flow (high water and low water years, including extremes), interprovincial water quantity agreements (e.g., Prairie Provinces Water Board regarding apportionment and water quality), Alberta's use of water and seasonal availability, the need to maintain minimum flows in the South Saskatchewan River, and other factors as identified in the engagement and consultation processes. They will also look at runoff from agriculture and consider designing the Projects to separate any return water from entering the canals or reservoirs.</p> <p>Any hydrological modelling for the Rehabilitation Project and Expansion Project will need to stay within the requirements of the Prairie Provinces Water Board and both the Master Agreement on Apportionment and the Water Quality Agreement among Alberta, Saskatchewan, and Manitoba. The Master Apportionment Agreement governs the apportionment of annual water flows in watersheds in these interprovincial and international basins. Water allocations must be managed so that Saskatchewan will meet its obligation that 50 percent of the estimated</p>	<p>Irrigation Certificate issued by the Saskatchewan Ministry of Agriculture and governed by the <i>Irrigation Act, 2019</i> and the <i>Irrigation Regulations, 2020</i>.</p> <p>Irrigation certificates are the responsibility of the Ministry of Agriculture, subject to the approval processes of the Water Security Agency and existing apportionment agreements (Prairie Provinces Water Board and both the Master Agreement on Apportionment and the Water Quality Agreement among Alberta, Saskatchewan, and Manitoba).</p> <p>The Prairie Provinces Water Board (PPWB) is a long-standing Fed-Prov governance body which helps facilitate collaborative water management in the Prairie region. Canada (Environment and Climate</p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>median annual flow of watersheds that are part of an interprovincial or international basin must be provided to the receiving jurisdiction (Manitoba, in the case of Saskatchewan). Any allocations made for the purpose of diversion and consumption of water as a resource in Saskatchewan must ensure that these downstream obligations to Manitoba are able to be met.</p> <p>Pursuant to its governing legislation, the WSA is granted the authority, subject to the approval of Lieutenant Governor in Council, to cancel the right to the use of any water granted by the WSA to any person if the WSA considers it in the public interest to do so. All licences and rights to use water will be subject to potential adjustment in the event of future water shortages to ensure that the use of Saskatchewan water is sustainable, promotes water quality and protects watershed ecology, and is able to meet international and inter-provincial obligations.</p> <p>They will demonstrate this compliance in the submissions to the Saskatchewan EASB in consideration of a number of variables including water supply and availability, climate change, natural variability, water quality including agricultural inputs, minimum flows for the protection of downstream users and wildlife, and other variables as identified during their studies or through engagement and consultation processes.</p> <p><u>Indigenous Services Canada</u></p> <p>Indigenous Services Canada outlined that the Lake Diefenbaker Irrigation Expansion Project is connected to the Saskatchewan Rivers systems and has the potential to impact a large area of the province and into Manitoba.</p> <p><u>Environment and Climate Change Canada</u></p> <p>The Project may impact water availability for both ecological and human needs in the downstream sections of the Saskatchewan River, including into the province of Manitoba. Irrigation and related canals increase the amount of water that is lost to evapotranspiration compared to the natural environment, particularly in low water availability conditions when irrigation demand is highest. In addition, low water</p>	<p>Change Canada and Agriculture and Agri-Food Canada) and the Provinces of AB, SK and MB are members. A Master Agreement on Apportionment (signed in 1969) sets the requirements and responsibilities, and central to this agreement is ensuring that apportionment is met annually (each province must pass an agreed-upon amount of water to the downstream jurisdiction), and that transboundary water quality monitoring and reporting are done each year. The PPWB role is principally to administer the Master Agreement on Apportionment (MAA). PPWB technical assessments can be done if a member jurisdiction has concerns that a proposed project will jeopardize the MAA requirements and/or have impacts downstream.</p>

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	<p>availability is projected to be a serious issue for all Prairie Provinces due to climate change.</p> <p>ECCC and the Prairie Provinces Water Board (PPWB) has some overlapping interest in water quantity and quality at the provincial borders. The PPWB administers the Master Agreement on Apportionment which ensures that transboundary waters of Alberta, Saskatchewan and Manitoba are protected and equitably apportioned. The ECCC Transboundary Waters Unit advised that environmental assessment of the Lake Diefenbaker Irrigation Expansion Projects would ensure a wide range of issues are considered and likely result in a more robust project. The Project may be located in one jurisdiction, but it is within a larger transboundary watershed.</p> <p>ECCC has been notified that the PPWB typically does not participate in designation requests, and does not yet have a position on this project, nor plans for technical assessments. The PPWB is still considering the implications of this project and are having discussion related to the project water supply requirements, downstream water quality, and climate change/future drought impacts on surface and groundwater supplies.</p> <p>Regarding greenhouse gas emissions, ECCC stated that the construction, operation, and decommissioning of the proposed Projects may result in greenhouse gas emissions, and may hinder or contribute to the Government of Canada's ability to meet its commitments in respect of climate change. Furthermore, the Projects have the potential to be affected by future climate change, possibly resulting in impacts to the environment.</p> <p><u>Saskatchewan Ministry of Agriculture</u></p> <p>The Irrigation Certification process is required in order for any producer in the province to be able to irrigate. <i>The Irrigation Act, 2019</i> stipulates that all new irrigation developments must first receive an irrigation certificate from the Minister of Agriculture. Only lands suitable for sustainable irrigation development receive irrigation certificates. There are a number of conditions that can be and are applied</p>	

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>to irrigation certificates. The conditions are all in place to protect the provinces land and water resources.</p> <p><u>Indigenous groups</u></p> <p>The requester raised concern that the Projects may adversely impact First Nations in Manitoba through the Saskatchewan River and the Saskatchewan River Delta, as well as impacts to carbon storage in the peatland and forest ecosystems.</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><u>Proponent</u></p> <p>The Proponent committed to undertake pre-consultation assessments in accordance with the Government of Saskatchewan First Nation and Métis Consultation Policy Framework to determine if consultation is required and if and where triggered, to determine an appropriate level and method of consultation. They stated that the threshold for triggering the duty to consult is low, and the need for consultation may be identified as the Projects continue through the planning, engagement, and pre-consultation phases.</p> <p>The Proponent has indicated that they are currently undertaking an initial heritage resources program in order to identify areas of potential concern for archaeological, paleontological, historical, and other cultural items or areas based on existing information and limited field reconnaissance. This is to inform the initial design and routing of the Projects and to demonstrate compliance with Saskatchewan's Heritage Property Act.</p> <p>The Proponent has sent initial letters to First Nations and Métis communities and organizations to determine their interest in participating and how they would like to be engaged.</p> <p><u>Indigenous groups</u></p> <p>Indigenous groups raised concerns that the Projects may:</p>	<p>The Project would require a Heritage Clearance under <i>The Heritage Property Act</i> issued by the Saskatchewan Heritage Conservation Branch of Parks, Culture, Heritage and Sport.</p> <p>Where the Saskatchewan Minister of Environment's decision to approve or refuse a development may lead to actions that have the potential to adversely impact Treaty and Aboriginal rights and the pursuit of traditional uses, the Saskatchewan Ministry of Environment has a duty to consult with First Nations and Metis communities in advance. The Government of Saskatchewan <i>First Nation and Métis Consultation Policy Framework</i> establishes the</p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<ul style="list-style-type: none"> • cause harm to cultural sites and sacred areas, including gravesites, ceremony, gathering and disturb other cultural and heritage-sensitive areas; • impact Saskatchewan watershed, which is an integral component of First Nations' identity; and • impact cultural sites on private lands, and therefore, not accessible to the First Nations, which are unable to assess the importance of the impacts. <p><u>Saskatchewan Ministry of Environment</u> To date, the EASB has not received an application for review of the Projects under <i>The Environmental Assessment Act</i>. As the provincial environmental assessment review has not commenced, the Ministry notes that it is unable to assess the potential impacts to the environment as a result of the Projects at this time.</p>	<p>province's policy on consultation with First Nations and Métis communities.</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><u>Indigenous groups</u> Indigenous groups raised concerns that the Projects may:</p> <ul style="list-style-type: none"> • reduce availability of culturally significant species, including waterfowl, migratory birds and caribou, due to the impact the project will have on the availability and quality of water; • reduced availability of sites used for harvesting, including traditional medicine and games • impact water and food security; • impact the access to land they use for traditional purposes, • Impact agricultural lands owned by Indigenous groups • impact the transmission of traditional knowledge; and • cumulatively effect the exercise of section 35 rights. <p><u>Indigenous Services Canada</u></p>	<p>When making a decision under the <i>Fisheries Act</i>, the Minister shall consider any adverse effects that the decision may have on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the <i>Constitution Act, 1982</i>.</p> <p>Where the Saskatchewan Minister of Environment's decision to approve or refuse a development may lead to actions that have the potential to</p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>Indigenous Services Canada outlined that the Projects are connected to the Saskatchewan Rivers systems and has the potential to impact a large area of the province and into Manitoba. The Saskatchewan Rivers systems have already been highly impacted and degraded due to agriculture, conversion of native lands, oil spills and other industrial activities along the river. As a result, many First Nations in Saskatchewan have serious concerns about future water security (particularly given climate change scenarios of drought for this region); food security; loss of lands with native habitats and associated wildlife; impacts to soils, waters, and fish habitat; loss of habitat for migratory birds; localized climatic changes due to increased irrigation; impacts to sacred sites and other cultural and heritage-sensitive areas; and finally, long-term cumulative impacts of water withdrawals and agrochemical inputs.</p> <p><u>Fisheries and Oceans Canada</u></p> <p>If a <i>Fisheries Act</i> Authorization is required, the authorization process through the Fish and Fish Habitat Protection Program may involve Indigenous consultation. This consultation may include consultation and/or accommodation on potential impacts to Indigenous peoples of Canada. These potential impacts may include current use of lands and resources for traditional purposes, physical and cultural heritage, and/or any structure site or thing that is of historical, archaeological, paleontological or architectural significance.</p>	<p>adversely impact Treaty and Aboriginal rights and the pursuit of traditional uses, the Saskatchewan Ministry of Environment has a duty to consult with First Nations and Metis communities in advance. The Government of Saskatchewan <i>First Nation and Métis Consultation Policy Framework</i> establishes the province's policy on consultation with First Nations and Métis communities.</p>
<p>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</p>	<p><u>Indigenous groups</u></p> <p>Indigenous groups raised concerns regarding the potential of the Projects to impact sacred sites, including gravesites, and other cultural and heritage sensitive areas.</p> <p><u>Saskatchewan Ministry of Environment</u></p> <p>To date, the EASB has not received an application for review of the Projects under <i>The Environmental Assessment Act</i>. As the provincial environmental assessment</p>	<p>The Projects would require a Heritage Clearance under <i>The Heritage Property Act</i> issued by the Saskatchewan Heritage Conservation Branch of Parks, Culture, Heritage and Sport. Conditions would be included to ensure heritage resources are protected. Consultation is carried</p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
historical, archaeological, paleontological or architectural significance	review has not commenced, the Ministry notes that it is unable to assess the potential impacts to the environment as a result of the Projects at this time.	<p>out as per the Government of Saskatchewan First Nation and Métis Consultation Policy Framework.</p> <p>Where the Saskatchewan Minister of Environment’s decision to approve or refuse a development may lead to actions that have the potential to adversely impact Treaty and Aboriginal rights and the pursuit of traditional uses, the Saskatchewan Ministry of Environment has a duty to consult with First Nations and Metis communities in advance. The Government of Saskatchewan First Nation and Métis Consultation Policy Framework establishes the province’s policy on consultation with First Nations and Métis communities.</p>
Any change occurring in Canada to the health, social or economic conditions of the Indigenous peoples of Canada	<p><u>Proponent</u></p> <p>The Proponent outlined that the Saskatchewan Government has an economic group and procurement policies that will focus on the potential for jobs and other economic opportunities for both Indigenous and non-Indigenous</p>	Where the Saskatchewan Minister of Environment’s decision to approve or refuse a development may lead to actions that have the potential to adversely impact Treaty and

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>businesses. The Proponent also indicated that Saskatchewan has many First Nation and Métis groups that have businesses and partnerships that could benefit from the Projects.</p> <p><u>Health Canada</u></p> <p>Health Canada indicated that the current information is not sufficient to confirm whether there exists a potential for adverse effects on human health within federal jurisdiction. Health Canada noted that the FSIN raised concerns with impacts to soil, water and food security, which are areas where Health Canada has identified expertise that may be relevant to this assessment and the Agency's review.</p> <p><u>Environment and Climate Change Canada</u></p> <p>Environment and Climate Change Canada noted that the construction of canals and pipelines requires the use of on-road vehicles and mobile off-road equipment, which has the potential to adversely affect air quality. More specifically, the combustion of fossil fuels can result in the emission of "criteria air contaminants" such as sulphur oxides (SOx), nitrogen oxides (NOx), volatile organic compounds (VOCs), and fine particulate matter (PM2.5) which are dispersed to the surrounding region during construction activities. Construction activities that cause a physical disturbance to land, such as earth moving, and transportation, can also introduce particulate matter (including dust) to the surrounding region. Emission of air pollutants can result in local or regional degradation of ambient air quality, with potential impacts on human health.</p> <p><u>Indigenous groups</u></p> <p>Indigenous groups raised concerns that the Projects may:</p>	<p>Aboriginal rights and the pursuit of traditional uses, the Saskatchewan Ministry of Environment has a duty to consult with First Nations and Metis communities in advance. The Government of Saskatchewan <i>First Nation and Métis Consultation Policy Framework</i> establishes the province's policy on consultation with First Nations and Métis communities.</p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<ul style="list-style-type: none"> • reduce access to and availability of land used for traditional activities, including land used for harvesting traditional medicines and game, which may impact food availability and security; • negatively impact economic development, by limiting economic opportunities (including required access to safe drinking water and wastewater services), agricultural lands, and traditional activities; • impact health due to impact on water security; and • provide economic opportunity through the inclusion of First Nation services in the procurement process. 	
Adverse direct or incidental effects	<p>Authorizations issued under the <i>Fisheries Act</i> would include conditions in relation to the harmful alteration, disruption or destruction of fish habitat and/or the death of fish. It may also include consultation and/or accommodation on potential impacts to Indigenous peoples of Canada.</p> <p>Review and approval process under the <i>Canadian Navigable Waters Act</i> approval with respect to water intake structures would include conditions to prevent severe impacts to navigation.</p> <p>Authorizations issued under the <i>Canada Wildlife Act</i> permits for activities in a National Wildlife Area may include conditions with respect to monitoring the effects that the activity is likely to have on wildlife or wildlife habitat in the wildlife area; and preventing or, if prevention is not feasible, mitigating any adverse effects.</p> <p>Permits issued under the <i>Species at Risk Act</i> for activities that affect a listed terrestrial species will only be issued if all reasonable alternatives to the activity that would reduce the impact on the species have been considered and the best solution has been adopted; all feasible measures will be taken to minimize the impact of the activity on the species or its critical habitat or the residences of its individuals; and if the activity will not jeopardize the survival or recovery of the species. The permit must contain any terms and conditions that the minister</p>	<p>The following may be required:</p> <ul style="list-style-type: none"> • <i>Fisheries Act</i> authorizations for the harmful alteration, disruption, or destruction to fish habitat; or for the death of fish; • <i>Canadian Navigable Waters Act</i> approval with respect to water intake structures; • <i>Canada Wildlife Act</i> permits for activities in a National Wildlife Area; • <i>Species at Risk Act</i> permit for activities that affect a listed terrestrial species; and • <i>Explosives Act</i> licence for the manufacture or storage of explosives.

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p>considers necessary for protecting the species, minimizing the impact of the authorized activity on the species or providing for its recovery.</p> <p>Review and approval process under the <i>Explosives Act</i> would include conditions for the safe and secure handling of explosives</p>	
<p>Effects on federally listed species at risk under the <i>Species at Risk Act</i></p>	<p><i>See above sections, A change to migratory birds, as defined in subsection 2(1) of the Migratory Birds Convention Act, 1994; A change to aquatic species, as defined in subsection 2(1) of the Species at Risk Act.</i></p> <p>ECCC has identified critical habitat for several species at risk in the proposed Project footprint, based on the mapping provided by the Proponent, as well as in the Saskatchewan River Delta located along the border with Manitoba. There are additional non-bird species at risk that have ranges in the project area and/or Saskatchewan River Delta, including invertebrates, plants, and the two Myotis species, Little brown bat, Big brown bat and the Woodland Caribou.</p> <p>ECCC will require detailed information on the potential effects of the Project, including locations and/or occurrences of species at risk, their use of habitat and critical habitat within the Project area, and specific effects on federal land, before ECCC can determine whether a SARA permit is required. The conversion and use of the land for crops are likely to have a large detrimental effect on many already declining and grassland bird populations in the region that are listed on the <i>Species at Risk Act</i>. Population-level effects should be evaluated for grassland species of high conservation concern, through a critical assessment of the land to be converted to crops. The loss of habitat would be exacerbated by habitat fragmentation caused by construction activities, noise and traffic disturbances, and the permanent presence of new pipelines, roads, and canals.</p>	<p>For species listed in Schedule 1 of the Species at Risk Act (SARA) as Extirpated, Endangered or Threatened, a permit may be required from ECCC (section 73 of SARA) for activities that affect a listed terrestrial wildlife species, any part of its critical habitat, or the residences of its individuals, where those prohibitions are in place. Permits are also required by those persons conducting activities that contravene the critical habitat destruction prohibitions (subsection 58(1)).</p> <p>The Saskatchewan Ministry of Agriculture, Lands Branch indicated that they review for federally designated critical habitat and apply the <i>Saskatchewan Activity</i></p>

Adverse Effect or Public Concern in Relation to Subsection 9(1) of the <i>Impact Assessment Act</i>	Effects and Design / Mitigation Proposed by the Proponent and Advice from Federal and Provincial Experts	Relevant Legislative Mechanisms
	<p><u>Saskatchewan Ministry of Environment</u> To date, the EASB has not received an application for review of the Projects under <i>The Environmental Assessment Act</i>. As the provincial environmental assessment review has not commenced, the Ministry notes that it is unable to assess the potential impacts to the environment as a result of the Projects at this time.</p> <p><u>Indigenous groups</u> Indigenous groups raised concerns that the Projects may cause:</p> <ul style="list-style-type: none"> • lost of critical habitat for boreal caribou; and • loss of fragmentation of habitat. 	<p><i>Restriction Guidelines for Sensitive Species.</i></p> <p>A Species Detection Permit under <i>The Wildlife Regulations, 1981</i> issued by Saskatchewan Fish, Wildlife and Lands typically applies to the conduct of surveys to detect rare and sensitive species and habitats related to proposed or actual projects or developments. Engagement and consultation are not required for this permit.</p>

ANNEX II

Annex II: Potential Federal and Provincial Authorizations Relevant to the Projects

	Description
Environment and Climate Change Canada (ECCC) <i>Species at Risk Act</i> (SARA) permit	<p>For species listed in Schedule 1 of the <i>Species at Risk Act</i> as Extirpated, Endangered or Threatened, a permit may be required from Environment and Climate Change Canada (section 73 of SARA) for activities that affect a listed terrestrial wildlife species, any part of its critical habitat, or the residences of its individuals, where those prohibitions are in place. Such permits may only be issued if: all reasonable alternatives to the activity that would reduce the impact on the species have been considered and the best solution has been adopted; all feasible measures will be taken to minimize the impact of the activity on the species or its critical habitat or the residences of its individuals; and the activity will not jeopardize the survival or recovery of the species. Permits are also required by those persons conducting activities that contravene the critical habitat destruction prohibitions (subsection 58(1)).</p> <p>Prohibitions are in place for individuals and residences on federal lands in a province, reserve or any other lands under the Indian Act, or lands under the authority of the Minister of the Environment, and for birds listed under the <i>Migratory Birds Convention Act, 1994</i> wherever they occur regardless of land tenure.</p> <p>Furthermore, prohibitions may be in force on land other than federal land pursuant to other orders or regulations under SARA. It is possible that further prohibitions may come into force in the future through orders in Council for individuals, residences and critical habitat on non-federal lands and / or through ministerial order for critical habitat on federal lands. It is also possible that, over the course of the assessment or after the assessment, additional species could be listed under SARA; permits may be required for Project activities that affect these additional species.</p>
Authorization issued by Environment and Climate Change Canada (ECCC) pursuant to the <i>Fisheries Act</i>	<p>Environment and Climate Change Canada administers Section 36(3) of the <i>Fisheries Act</i>, which prohibits the deposit of deleterious substances into waters frequented by fish, unless the deposit is authorized by regulations. The owner/operator will be required to ensure there are no deposits of deleterious substances that would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish.</p>
Fisheries authorization issued by Fisheries and Oceans Canada (DFO) pursuant to the <i>Fisheries Act</i>	<p>A <i>Fisheries Act</i> paragraph 35(2)(b) Authorization will be required if the Project is likely to cause the harmful alteration, disruption, or destruction to fish habitat and/or a <i>Fisheries Act</i> paragraph 34.4(2)(b) Authorization if the project is likely to result in the death of fish. Should DFO consider issuing a <i>Fisheries Act</i> s.34.4(2)(b) and/or 35(2)(b) authorization for the Project, consultation with Indigenous groups would be undertaken.</p>

<p>Licence issued by Natural Resources Canada (NRCan) pursuant to the <i>Explosives Act</i></p>	<p>At this time, it is uncertain whether the Proponent will require the manufacture or storage of explosives. Should the Proponent require the manufacture or storage of explosives for the project, NRCan will review the information and determine whether a licence under the <i>Explosives Act</i> be required.</p>
<p>Transport Canada requirements under the <i>Canadian Navigable Waters Act</i></p>	<p>Depending on final design, the proposed intakes on Lake Diefenbaker may be subject to the provisions of the <i>Canadian Navigable Waters Act</i> administered by Transport Canada.</p> <p>Stantec, on behalf of the Proponent, submitted a pre-submission for this project to Transport Canada's Navigation Protection Program (NPP) on April 30, 2021. The NPP offers pre-submission services, which provides support and guidance to owners of works concerning navigation considerations, legislative requirements, as well as processes and procedures under the <i>Canadian Navigable Waters Act</i> (CNWA).</p>
<p>Permit under the <i>Canada Wildlife Act</i> to conduct activities in National Wildlife Areas.</p>	<p>Under the <i>Canada Wildlife Act</i>, National Wildlife Areas (NWAs) are protected and managed in accordance with the Wildlife Area Regulations. The primary purpose of NWAs is to protection and conserve wildlife and their habitat. For this purpose and according to the legislation, all activities in a NWA that could interfere with the conservation of wildlife can be prohibited. Access to Prairie NWA is not restricted and activities may be permitted in accordance with the conservation objectives of the NWA management plan.</p> <p>A permit is required for activities in a National Wildlife Area likely to disturb, damage, destroy or remove from the wildlife area any wildlife- whether alive or dead- wildlife residence or wildlife habitat. Before issuing a permit, the Minister shall, for the purpose of evaluating the effects that a proposed activity is likely to have on wildlife or wildlife habitat in the wildlife area and determining whether the effects are adverse, take the following into consideration: (a) the likelihood that those effects will occur and their scope;(b) the capacity of the wildlife or wildlife habitat to recover or to be restored, if the effects occur; and (c) the cumulative effects of the activity when combined with the effects of other activities carried out in the wildlife area.</p>
<p>Environmental Assessment Approval / Process guided by <i>The Environmental Assessment Act</i> and the Environmental Assessment and Stewardship Branch, Saskatchewan Ministry of Environment.</p>	<p>To date, the Saskatchewan Ministry of Environment EASB has not received an application for review of the Project under <i>The Environmental Assessment Act</i>. As the provincial environmental assessment review has not commenced, EASB is unable to assess the potential impacts to the environment as a result of the projects at this time.</p> <p>Once an application is received, a screening will be conducted to determine whether either of the projects meet the definition of "development" in the Act, and would therefore be required to conduct an environmental assessment and submit findings in an environmental impact statement. At that time, the duty to consult and accommodate would also be assessed.</p> <p>The environmental assessment process requires the Proponent to engage the public prior to submitting a technical proposal for determination under the Act. Section 2(d) of <i>The Environmental Assessment Act</i> includes the criteria against which projects are reviewed to determine whether they are "developments". According to clause 2(d)(iv), projects likely to cause widespread public concern because of potential environmental changes are "developments" and must</p>

complete an environmental assessment and receive Ministerial Approval prior to proceeding.

Should the Saskatchewan Minister of Environment (the Minister) determine either of the projects are not a “development”, the Proponent may then proceed to obtain the required licences and permits, subject to any terms and conditions the Minister considers necessary.

The Proponent also has the option to voluntarily self-declare a project as a “development” and proceed to initiating the process rather than waiting for a determination from the Ministry of Environment.

Where the Minister’s decision to approve or refuse a development may lead to actions that have the potential to adversely impact Treaty and Aboriginal rights and the pursuit of traditional uses, the ministry has a duty to consult with First Nations and Metis communities in advance. The Government of Saskatchewan *First Nation and Métis Consultation Policy Framework* establishes the province’s policy on consultation with First Nations and Métis communities.

Species Detection Permit under *The Wildlife Regulations, 1981* issued by Saskatchewan Fish, Wildlife and Lands

A Species Detection Permit typically applies to industry proponents and their agents that conduct surveys to detect rare and sensitive species and habitats related to proposed or actual projects or developments. Engagement and consultation are not required for this permit.

Fish Collection and Salvage Permits under *The Fisheries Act (Saskatchewan)* and *The Fisheries Regulations* issued by Saskatchewan Fish, Wildlife and Lands

Conditions of these permits would specifically mitigate concerns related to collection methods, release, aquatic invasive species and disease, species at risk and data collection/ reporting.

Engagement and consultation are carried out as per the Government of Saskatchewan *First Nation and Métis Consultation Policy Framework*.

Approvals and Dispositions for provincial crown administered lands including provincial crown resource lands, Fish, Wildlife & Development Fund Land, lands protected under *The Wildlife Habitat Protection Act*, Crown Conservation Easements under *The Provincial Lands Act, 2016*; *The Wildlife Habitat Protection Act* and *The Conservation Easements Act* issued by Saskatchewan Fish, Wildlife and Lands

Disposition terms (easement, multiple use permit, work authorization) would outline and set conditions and would address erosion, deposition of deleterious substances, sedimentation, sanitation, impacts to wild species, secondary containment, in addition to terms and conditions for occupation of the land.

Before authorizing or providing disposition for those projects, they review for federally designated critical habitat and apply the Saskatchewan Activity Restriction Guidelines for Sensitive Species. The Ministry of Agriculture will not approve the breaking of native prairie for development.

Consultation is carried out as per the Government of Saskatchewan First Nation and Métis Consultation Policy Framework.

Aquatic Habitat Protection Permit issued pursuant to *The Environmental Management and Protection Act, 2010* issued by the Water Security Agency.

Section 38(4)(5)(6) of *The Environmental Management and Protection Act* (EMPA) and Sections 4, 5, 6 and 7(a) of The Environmental Management and Protection (General) Regulations define the Water Security Agency's provincial authority for aquatic ecosystem protection and the broader aquatic habitat protection objectives that stem from it, such as protection of the bed, bank and boundary of Crown surface waters and the values entailed such as aquatic habitat, aquatic organisms, the water cycle, and shoreline stability.

The Aquatic Habitat Protection Program is in place to minimize development impacts during every phase of the construction project resulting in the protection of aquatic habitat. These mitigation measures can include: using appropriate building materials, project designs and timing, and preventing increased soil erosion and sedimentation.

Conditions would address erosion, deposition of deleterious substances, sedimentation, sanitation, and secondary containment.

Consultation is carried out as per the Government of *Saskatchewan First Nation and Métis Consultation Policy Framework*.

Hazardous Substances and Waste Dangerous Goods (HSWDG) permit under *The Hazardous Substances and Waste Dangerous Goods Regulations; The Environmental Management and Protection Act, 2010; and The Saskatchewan Environmental Code* issued by the Environmental Protections Branch of the Saskatchewan Ministry of Environment

Conditions would pertain to the type and quantity of hazardous substances and how they are stored.

Consultation is carried out as per the Government of Saskatchewan *First Nation and Métis Consultation Policy Framework*.

Heritage Clearance under *The Heritage Property Act* issued by the Heritage Conservation Branch of Parks, Culture, Heritage and Sport

Conditions ensure heritage resources are protected.

Consultation is carried out as per the Government of Saskatchewan *First Nation and Métis Consultation Policy Framework*

Permits/approvals issued by the Water Security Agency pursuant to *The Water Security Agency Act* and regulations under that Act:

- Water Rights Licence (WRL)

Any use of water, with the exception of domestic uses, requires a Water Rights Licence. In addition, Approvals to Construct and Operate are required for any works where water is to be used or diverted.

- Approval to Construct (ATC) – surface or ground water works
- Approval to Operate (ATO) – surface or ground water works
- Permit to Conduct Ground Water Investigation

Permits/approvals issued by the Water Security Agency Environmental and Municipal Management Services pursuant to *The Environmental Management and Protection Act* and the *Waterworks and Sewage Works Regulations*:

- Permit for Construction of Waterworks and/or Sewage Works
- Permit to Operate Waterworks
- Permit to Operate Sewage Works
- Permit for the Chemical Control of Aquatic Nuisances in and/or Near Surface Water

The Environmental Management and Protection Act and the *Waterworks and Sewage Works Regulations* (WSWR) define WSA’s provincial authority to regulate the construction and operation of drinking water and wastewater facilities in the province.

WSA shares responsibility with the Ministry of Environment for regulating private waterworks and sewage works within the province that have a design capacity of greater than 18 cubic metres per day. Typically, WSA will regulate entities such as provincial and regional parks.

EMMS is the provincial regulator in the province for the chemical control of Aquatic Nuisances in and/or Near Surface Water. Under Section 7(1)(a) of the *Environmental Management and Protection (General) Regulations*, a permit is required if a chemical or substance is applied in and/or near any surface watercourse in Saskatchewan. Further, under Section 7(1)(b) of the *Environmental Management and Protection (General) Regulations*, a permit is required if a substance is to be applied to any surface water or along the banks or shore of surface waters in Saskatchewan.

Agriculture Water Mangement permits under the *Water Security Agency Act*.

The program is responsible for approving drainage works and also administers a complaint process for unapproved works.

WSA administers the program WSA require land control where the works are located and land significantly affected. WSA also need to consider the impact of the works as it related to water quantity, quality and habitat before issuing an approval. Proponents may be required to undertake mitigative measures.

The *Water Security Agency Act* also identifies the process used to administer Requests for Assistance in Resolving a Complaint (RFA). Provisions for enforcement are also included in the Act.



Reservoir
Development Areas
Permits

The WSA regulation controls land use immediately adjacent to the reservoirs and a permit is required for lands surrounding the following Reservoir Development Areas (RDA): Avonlea Creek, Blackstrap, Bradwell, Brightwater, Dellwood, Lake Diefenbaker and Zelma RDAs.

Irrigation Certificate
issued by the Ministry
of Agriculture and
governed by the
Irrigation Act, 2019 and
the *Irrigation
Regulations, 2020*.

The Irrigation Certification process is required in order for any producer in the province to be able to irrigate. The *Irrigation Act, 2019* stipulates that all new irrigation developments must first receive an irrigation certificate from the Minister of Agriculture. Only lands suitable for sustainable irrigation development receive irrigation certificates.

Irrigation certificates are the responsibility of the Ministry of Agriculture, subject to the approval processes of the WSA and existing apportionment agreements (Prairie Provinces Water Board and both the Master Agreement on Apportionment and the Water Quality Agreement among Alberta, Saskatchewan, and Manitoba).

This Act and Regulations set out the procedural requirements from formation of an Irrigation District to provision of water services by that district and the agreements required by each water service user. Through this, Irrigation Districts are mandated to cooperate with other districts, the Ministry of Agriculture, and the Irrigation Crop Diversification Corporation to promote sustainable irrigation.

There are a number of conditions that can be and are applied to irrigation certificates, including with relation to drainage. The conditions are all in place to protect the provinces land and water resources. If it is no longer in the public interest to irrigate a parcel of land, the Minister has the power to cancel the irrigation certificate.

Public and Indigenous consultation is conducted if provincial crown land is involved. Lands Branch of the Ministry of Agriculture completes the consultation on the Ministry's behalf.

The Ministry of Agriculture will not approve the breaking of native prairie for development.