Draft Commitments Register

Table 1.1-1 provides a summary of the commitments made by Denison in the draft Environmental Impact Statement (EIS) relating to the Wheeler River Project. Each commitment is categorized in terms of timeline:

1) commitments to include in licensing;
2) commitments prior to construction;
3) commitments to include as part of construction, operation or decommissioning;
4) commitments to include post decommissioning.

Table 1.1-1: Commitments in the Environmental Impact Statement for the Wheeler River Project

Section	Commitment	Category
2.2.1.4.1	A secondary casing/tubing will be inserted inside the primary casing to greatly reduced the likelihood of potential groundwater contamination and increase overall environmental protection	3
2.2.1.4.5	Double-walled high-density polyethylene (HDPE), or equivalent, piping will be used in the wellfields. The lines from the processing plant, pumphouses, and individual well lines will be freeze protected and secured to minimize pipe movement. The lines will be designed to have secondary containment or catchment and have leak detection systems in place at key locations.	3
2.2.2.1	Ventilation in the processing plant will be designed to be consistent with the as low as reasonably achievable (ALARA) principle to provide sufficient worker protection	2,3
2.2.3.9	A minimum of two effluent monitoring and release ponds are required to be operational at all times to make sure all effluent released to surface water meets federal and provincial discharge limits	3
2.2.4	Denison is committed to conducting stringent waste characterization throughout the life of the Project.	3
2.2.4.3.2	Upon closure of the site, the industrial landfill will be covered with an engineered impermeable liner system to minimize infiltration of precipitation into the containment system and, therefore, provide long term protection of environment.	3, 4
2.2.7.6	Denison will maintain an up-to-date record of the various hazardous substances on site and will maintain Safety Data Sheets and appropriate procedures for spill management, handling, and clean up in an accessible location	3
2.2.4.7	Denison will examine opportunities to reprocess the mineralized core and cuttings generated during wellfield development.	3
2.3.1.12	During Construction, Denison will provide general and administrative services to operate the site and support the contractors (e.g., room and board, flights, general supplies, freight haulage).	3
2.3.3	Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure.	3, 4
2.3.3	Denison will provide financial assurance to ensure the identified decommissioning activities can be completed as planned.	2, 3, 4
2.3.3	In support of the conceptual decommissioning plan, Denison will prioritize passive versus active controls to reduce long-term risk.	3, 4
2.3.3	Denison shall prepare and submit a detailed decommissioning plan (DDP) to regulators for acceptance, which builds on the preliminary decommissioning plan.	2,3,4
2.7	Denison will make sure that appropriate socio-economic considerations are made in the Province's Saskatchewan Surface Lease Agreement and any other arrangements, as appropriate	2, 3, 4

Section	Commitment	Category
2.7	Throughout all phases of the Project, Denison will prioritize procurement efforts within the immediate vicinity and region.	1, 2, 3
2.7	Denison will work with the leadership of the Communities of Interest to assist in determining appropriate hiring practices during all phases of the Project	1, 2, 3
2.7	Denison will concentrate initial and sustained efforts for employment and training initiatives for the Project with its Communities of Interest.	2, 3
2.8	Various Project design features have been proposed that serve to eliminate, reduce, or control potential Project effects on the biophysical and human environments through all Project phases. Additional VC-specific mitigation measures are proposed in Sections 6 through 13. Examples of Project design features are provided here: • The Project footprint and Project Area (i.e., the area of maximum physical disturbance) have been reduced to the extent practicable, to minimize habitat loss and alteration, as well as noise propagation. • Much of the proposed Project footprint will be developed within previously disturbed areas, including roads currently used for exploration activities, thereby minimizing additional habitat disturbance. • Restrict all construction activities to the approved Construction footprint. • Site clearing and other works that involve disturbance of vegetation and/or soil will be completed during least-risk timing windows for wildlife and birds to avoid disturbance during sensitive time periods, whenever practicable. • Cleared brush and soil will be stockpiled when possible, to be used in progressive reclamation. • Implement erosion and sediment controls during Construction. • Ponds will be designed maintain a minimum freeboard of at least 1.0 m to allow for continued functioning during a pr probable maximum precipitation (PMP) event. • Processing plant exhaust from drying and packaging areas will be directed through a venturi scrubber prior to release outside of the building. • The height of the processing plant stack will be based on results of air dispersion modelling to be an appropriate height for optimal dispersion. • Various aspects of the processing plant design incorporate best practices for worker protection including grading floors towards sumps for spill collection, having appropriate ventilation rates, and monitoring systems in place to make sure these mitigation measures are meeting design specifications. • Bulk storage tanks for processing and water treatment will be located inside the processing plant, in a separate room from the processing equipment. The storage tanks will sit inside appropriately designed and sized concrete secondary containment basins. The secondary containment basin for each applicable chemical system will be physically separated from the containment basins for other chemical systems. • Ventilation in the pumphouses will be designed with the ALARA principle in mind to provide sufficient worker protection from potential radon and radon progeny exposure. Monitoring systems will be in place to make sure these mitigation measures are meeting design specifications.	1, 2, 3, 4

Section	Commitment	Category
	• Design liners and develop appropriate performance monitoring (e.g., leak detection, groundwater monitoring) based on the characteristics of the material being stored: • Ponds or pads designed to temporarily or permanently store non-radioactive materials will be lined with a single geosynthetic composite liner system. This is a primary HDPE GM over a GCL. The GCL will include a low permeable layer of bentonite clay. Examples of Project components proposed to have this type of liner include: the industrial wastewater treatment plant precipitate pond, hazardous waste storage pad, and effluent monitoring and release ponds. • Ponds or pads designed to temporarily or permanently store potentially radioactive materials will be lined with a double geosynthetic composite liner system. This is a primary HDPE GM over a GCL and a secondary HDPE GM over an additional GCL. The GCL will include a low permeable layer of bentonite clay. In between the primary and secondary liners, a leak detection and collection system will also be installed. The selected design is the most robust currently known and offers a life of several hundred years with proper installation and maintenance. Examples of Project components proposed to have this type of liner include: wellfield runoff pond, process precipitate pond, landfill leachate collection ponds, process water pond, UBS holding area, and special waste pad. • Fuel storage and distribution infrastructure will be constructed in accordance with applicable legislation requirements. • Fuels will be stored in approved, above-ground, double-walled storage tank(s) equipped with secondary containment in accordance with provincial regulations and standards. • Stationary and mobile equipment will be fueled with a fuel-dispensing truck. • A minimum 100 m distance from any waterbody will be maintained for fuel storage, refueling activities, or equipment servicing. • Hazardous substances will be managed in a safe and secure manner in line with Safety Data Sheets, permit conditions, and applicable regulations. Denison will maintain an up-to-date record of the various hazardous substances on site and will maintain Safety Data Sheets and appropriate procedures for spill management, handling, and clean up in an accessible location. • Clean, non-contact runoff will be diverted around Project components where possible. Contact water, including, for example, runoff from the wellfield and around the processing plant, will be collected in various ponds and eventually routed through the IWWTP for treatment prior to release to Whitefish Lake. • The fresh water well(s) and surface water intake will be located, designed, installed, and operated according to applicable standards and best practices to minimize effects on the groundwater and surface water environments. • The Project will adhere to treated effluent discharge limits as stipulated in operating approvals and by regulations and for protection of aquatic life and receptors associate with the water exposure pathway. • Battery-powered light vehicles and mobile equipment, and an AC powered dual rotary drill for ISR wellfield development instead of a traditional diesel-powered unit will be employed where practical to reduce air emissions and noise levels and improve energy efficiency.	

Section	Commitment	Category
	• Project components including equipment and machinery will regularly maintained and inspected to make sure they are in good working order. • Speed limits will be implemented on site roads for worker safety, to minimize generation of road dust, and to protect wildlife. • Containment and control of mining solution and uranium bearing solution in the ground in general, and the mining area in particular, will use three layers of protection: 1. well design and operation – well will have secondary containment, be made of material resistant to mining solution, pressure grouted from the ore zone to surface, and tested for mechanical integrity prior to commissioning to confirm an adequate seal from surface to the well screen at the mining area. Operational monitoring of pressure and flow will provide assurance that the wells are functioning properly. 2.pumping – operation of the injection and recovery wells will be done in a way to maintain an inward hydraulic gradient to keep mining solutions no more than 50 m above the well screened area in the ore zone. Perimeter pumping wells will be installed vertically, horizontally, and laterally surrounding the mining area both inside and outside the freeze wall with the ability to capture fluids by pumping when required and recycle solutions should the primary containment system not perform as expected. 3.freeze wall – a freeze wall around the mining area, extending from the surface to the basement rock isolating the mining area from regional groundwater. The freeze wall is expected to be a minimum of 10 m thick, be installed 25 m away from the uranium deposit, and extend 30 m into the basement rock. Data from the groundwater monitoring network installed in and around the wellfield and freeze wall will make sure these mitigation measures are meeting design specifications. • Double-walled (HDPE), or equivalent, piping will be used for the wellfield surface piping system and the piping will be freeze protected and secured to minimize movement. Surface pipelines will be designed to have secondary containment or catchment and have leak detection systems in place at key locations. • Denison is committed to conducting stringent waste characterization throughout the life of the Project. This includes physical, radiological, and chemical characterization to maintain accurate waste inventories and determine how wastes will be dispositioned through either re-use, recycling, temporary storage, or permanent disposal (on or off site). This includes clearance of material that meets unconditional release requirements and can be safely removed from site. • During Operation, progressive decommissioning and reclamation activities will be completed where possible, and the progress and success of these activities will be assessed annually. • At Decommissioning, areas requiring additional control (potentially the industrial landfill and IWWTP precipitate pond) will be covered with an engineered impermeable liner system to limit infiltration of precipitation into the containment system. • Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The CDP outlines how radiological, physical, and chemical risks will be managed during Decommissioning so no unreasonable risks remain. Denison will prioritize passive versus active controls to reduce long-term risk. Additional decommissioning details will be provided in the PDP, which will submitted to regulators as part of	

Section	Commitment	Category
	Project licensing and permitting. Prior to executing Decommissioning activities, Denison shall prepare and submit a DDP to regulators for acceptance, which builds on the preliminary decommissioning plan.	
2.9.1	In accordance with Denison's corporate Environment, Health, Safety and Sustainability Policy, Denison shall endeavor to: • establish and maintain clearly defined a Health and Safety Management Program and Environmental Management System to guide its operations in accordance with the foregoing principles; • make sure that it has adequate resources and appropriate staffing in order to implement its health, safety, environmental, sustainability and engagement programs; • ensure that its employees and contractors are properly trained in the implementation of its safety and environmental programs and in compliance with applicable laws and regulations; • institute regular monitoring programs to identify risks to its workers, contractors, Indigenous Rights holders, the public or the environment, and to ensure compliance with regulatory requirements; • set objectives and targets in an effort to continually improve its management and performance of health, safety, environmental, sustainability and engagement programs; • identify and reduce the potential for accidents and emergency situations, and implement emergency response plans that will protect the health and safety of its workers, contractors, the public and the environment; • conduct regular audits to assess and ensure compliance with this policy; • develop processes for preventing non-conformance with this policy and adopting corrective actions; and, • require regular reporting to its Board of Directors regarding compliance with this policy.	2, 3
2.9.1	Denison will develop the Environmental Management System (EMS) as the Project proceeds through licensing and permitting	2
5.4.2	Denison is supporting several processes to aid community-led collection of IK. These processes are at different stages of completion. Denison will continue to consider and integrate results from any forthcoming materials provided by communities as it advances the EIS process.	1,2,3
3.4.6	In response to instances where IK and western science diverge, Denison has established principles to address and resolve potential disagreements. Denison seeks to: • collaborate with IK holders in developing potential solutions to those concerns; • where necessary, adjust the initial plans for the Project to reduce potential impacts and accommodate Rights and interests; and • make active and good-faith efforts to resolve all material issues in the above-identified fashion	1,2,3
5.10	If unforeseen adverse effects are identified during any of the monitoring or follow-up programs, Denison will, as per its ongoing adaptive management process, adjust the existing mitigation measures or, if necessary, develop new mitigation or other measures to address those effects.	3, 4
6.1.8, 6.1.9, 6.2.8, 6.2.9, 6.1.5, 6.1.7	Finalize and implement an adaptive air quality management and monitoring plans within the Environmental Management System.	2,3

Section	Commitment	Category
7.4.2	Mining solutions will be contained within the ISR mining area.	3
7.4.2.5	The freeze wall functions as tertiary containment and when utilized, will remain in place until it can be demonstrated that groundwater quality in the ISR mining zone meets the EA established remediation objectives, after which time thawing of the freeze wall will occur.	3
7.5.1	Any vertical movement of mining fluids will be actively managed to within the 50 m of the ISR active mining area	3
7.5, Table 7.5-1	Incorporation of specific Project design components and practices including: • Site monitoring: pre and post elevation measurements will be taken at the well collars to account for any vertical movement at ground surface over life of mine. • Development of contingency plans including cementing wells in place which act to stabilize the geological environment.	3
	Incorporation of specific Project design components and practices including: • Limit construction footprint (i.e., Project Area) to the extent possible to reduce the potential for reductions in groundwater recharge and limit the number of watersheds overprinted by the Project Area. • Design the Project to limit water use and enhance water recycling. • Implement Surface Water Management Plan and best practices to reduce site runoff and recharge to aquifers. In addition, commitment to follow-up on ongoing hydrogeological evaluations, as well as monitoring and adaptive management including: ○ groundwater elevations in the groundwater well network; and ○ water elevations of surface waters within the LSA.	2, 3
	• Incorporate best management practices to avoid effects to groundwater from hazardous substances, including those outlined in **Section 4.** No fuels, oils, or other hazardous substances will be stored within 100 m of any water body and no equipment maintenance or re-fuelling will be conducted within 100 m of a water body. • Develop environment management plans, programs, and procedures to provide consistent and responsible practices. • Make sure employee training programs and procedures are in place.	2,3
	Incorporation of specific Project design components including: • Establishment of the freeze wall before mining operations to hydraulically isolate the ISR mining zone from the surrounding groundwater environment. • Creation of hydraulic controls that will limit vertical migration to the zone 50 m above the ore zone within the freeze wall. • Design injection and recovery wells to have secondary containment. • Recognize option to drill additional wells to recover mining solution excursions. • Design pipelines to have secondary containment or catchment.	2,3

Section	Commitment	Category
	• Establishment of a leak detection system for wells and pipelines. • Implementation of a groundwater monitoring well network within and surrounding the outer perimeter of the freeze wall, and a Groundwater Protection and Groundwater Monitoring Plan (quantity and quality). • Development of contingency plans including drilling additional wells into any potentially contaminated areas for recovery of the mining solution back to surface. • Development of contingency plans to respond to excursions and emergency response plans for timely response to unplanned incidents.	

	Incorporation of Project design components including:
	• Design landfill and pads with geomembrane liner protective systems; single or double liner systems with leak detection and collection and leachate collection systems appropriate for the materials stored.
	• Store hazardous substances in approved storage areas with secondary containment as required.
	• Implementation of appropriate monitoring and management plans:
	  • Establish a groundwater monitoring well network and Groundwater Protection and Groundwater Monitoring Plan for the surface facilities;
	  • environment, health and safety management plans, programs, and procedures;
	  • waste management plans, programs, and procedures; and
	  • employee training programs and procedures.
		2,3

	Incorporation of Project design components including: • Mining area remediation during Decommissioning – water will be injected into the mining horizon via injection wells and then recovered through the recovery wells to flush residual COPC mass in groundwater. • Groundwater remediation to continue until appropriate levels (Decommissioning Objectives), protective of the environment in the long-term (i.e., Future Centuries period), are achieved. • Implement groundwater monitoring (quantity and quality) within and exterior to the former freeze wall and along the groundwater flow path to demonstrate that groundwater conditions are aligned with those bounded by the modelling predictions, and, as such, protective of the receiving environment. • Develop contingency plans including drilling additional wells into potentially contaminated areas for recovery of the mining solution back to surface. • Develop emergency response plans to respond to unplanned incidents and provide a timely response (e.g., for clean-up surface spills).	2,3,4
7.8.1	Monitoring of Surface Terrain: Subsidence at ground surface within the wellfield will be evaluated from Construction through to Decommissioning, by monitoring the elevation of collars (top of pipe) for wells within the wellfield. Contingency plans, including measures for adaptive management, and emergency preparedness plans will be designed to safeguard the local environment.	2, 3
7.8.2	Groundwater conditions will be monitored extensively from Pre-Construction through to Post-Decommissioning. A Groundwater Protection and Groundwater Monitoring Plan (GWMP) will provide a detailed groundwater monitoring plan for the Project.	2, 3

Section	Commitment	Category
7.8.2.3	Develop and implement an excursion contingency as part of the GWMP is to facilitate the timely identification of, and response(s) to, potentially emerging conditions (excursions) whereby routine monitoring data indicate environmental performance is not meeting expectations.	2, 3
8.1.5	Project-related effects on Surface Water Quality will be avoided or reduced through the following measures: • Limit and stage the construction footprint (i.e., Project Area). • Maintain existing drainage patterns with the use of culverts, where applicable. • Maintain access roads by periodically regrading and ditching to improve water flow, reduce erosion, and manage vegetation growth. • Inspect culverts periodically. Remove accumulated material and debris upstream and downstream of the culverts to prevent erosion, flooding, habitat damage, property damage, and mobilization of sediment. • Attenuate peak discharges and augment baseflows to the environment using Project water storage features (i.e., runoff, process water, contact water, monitoring/effluent ponds). • Recycle contact water for use as process water. • Recycle process water for re-use.	3
8.2.4.2.1, 8.2.6.1, 8.3.4.2.1, 8.3.6.1, 8.4.4.2.1, 8.4.6.1, 8.5.4.2.1, 8.5.6.1	During Decommissioning, the Surface Water Management Plan will continue to operate such that Denison will maintain control of the site aspect affected water through the IWWTP.	3
8.2.5, 8.3.5, 8.4.5, 8.5.5	To mitigate adverse effects on the aquatic environment, Denison will implement the following mitigation measures. • Develop and implement a Surface Water Management Plan that provides an integrated framework to manage water quality, including provision for water management practices for each of the primary site aspects, as well as areas of the Project site where contact water is expected. • Maximize the recycle and reuse of process water to reduce freshwater intake and release to Whitefish Lake. • Design the discharge diffuser/outfall to provide effective mixing and dilution and discharge flows that do not detrimentally affect sediments. • Develop site-specific effluent treatment to treat COPC to appropriate release limits in accordance with provincial standards and licence/permit conditions. • Collect and monitor contact water to determine whether treatment is required prior to release to the environment to inform optimal levels of treatment. • Maintain the water management system in place during decommissioning until such time that water quality is suitable to release to the environment. • Monitor and manage effluent, including contingency for effluent treatment as may be required, so that water discharge objectives are achieved as defined by applicable provincial and federal regulatory instruments.	2, 3

Section	Commitment	Category
	• Design and implement an Environmental Code of Practice that defines action levels and appropriate steps to be taken to mitigate elevated concentrations of chemical and radiological constituents in treated effluent discharge to acceptable levels. • Implement Project-specific monitoring programs (e.g., effluent monitoring plan, environmental monitoring plan) that include monitoring treated effluent, surface water and sediment quality, and applying adaptive management, if necessary. Work with the associated communities to develop and implement the Project-specific monitoring programs and a framework to share the results for the purpose of assessing the performance of the water management system. Develop and implement a Reclamation and Closure Plan to decommission and transfer the site to the province under the Institutional Control Program.	
8.2.9	To minimize residual effects of the Project on surface water quality, Denison will develop and implement a Surface Water Management Plan that provides an integrated framework to manage water quality that includes provision for water management practices for each of the primary site aspects, as well as areas of the site where there is contact water. Water management will include maximizing the recycle and reuse of contact and process water to reduce freshwater intake and release to Whitefish Lake.	2, 3
	Denison will design discharge diffuser/outfall to provide effective mixing and dilution and to provide discharge flows that do not detrimentally impact water quality.	2
	Denison will develop site-specific effluent treatment to treat effluent to appropriate release limits in accordance with provincial standards and licence/permit conditions.	2
8.3.5	Denison site vehicles will not be available for recreational purposes. While at the Project site and off duty, workers may opt to fish local waterbodies. Catch and release of fish will be encouraged, and fish storage or cooking facilities will not be provided. Transportation to fishing areas via trucks or boats will not be permitted	3
9.1.5	Construction will closely adhere to construction boundaries, plans and schedules; off-site machine use will be restricted to avoid effects outside the Project Area	3
9.1.5.1, 9.1.5.2, 9.1.5.3	During all phases, sediment and erosion control measures will be implemented. Surface water drainages will be managed and maintained via culverts and ditches constructed along access roads and facility sites to facilitate surface drainage continuity and hydrologic connectivity — especially in proximity to wetlands, water crossings, and waterbodies.	3
9.1.5.1, 9.1.5.2, 9.1.5.3	During Decommissioning, the Project will be reclaimed to the pre-disturbance land use (or an acceptable land use within the range of natural variation) in accordance with the Decomissioning Plan.	3
9.1.5.2	During all phases, dust will be mitigated in accordance with the with dust suppression techniques.	3
9.1.8.1	Construction/geotechnical monitoring will be completed to verify that the Project is constructed to design specifications and that mitigation measures are both appropriate and effective in relation to the level of geotechnical	3

Section	Commitment	Category
	risk. Construction monitoring procedures will clearly define and delineate indicators and descriptors to identify potential deficiencies, triggers and corrective actions.	
9.1.8.2	Soil and organic matter/peat monitoring will be conducted during soil salvage and stockpiling activities prior to Construction. Monitoring of soil stockpiles will then be conducted during the Operation Phase.	2, 3
9.2.5.1, 9.3.5.1, 9.4.5.1	Much of the proposed Project footprint will be developed within previously disturbed areas, including roads currently used for exploration activities, thereby minimizing habitat disturbance.	3
	Dust deposition on vegetation (including potential deposition of COPCs) will be reduced by: • directing processing plant exhaust from drying and packaging areas through a stack prior to release outside of the building; • designing the stack height based on results of air dispersion modelling to be an appropriate height for optimal dispersion; • controlling access to the property with both a north and south security gate; • making a wash bay available to clean items, equipment and vehicles that may have been in contact with potentially contaminated materials. Contaminated water from the wash bay will be collected in a sump tank and routed to the water treatment plant for treatment and discharge; and • conducting radiological clearance scanning as required for any items, equipment and vehicles leaving the Project Area. • watering and traffic controls on roads.	
	Battery-powered light vehicles and mobile equipment, and an AC powered dual rotary drill for ISR wellfield development instead of a traditional diesel-powered unit will be employed where practical, to reduce air emissions and improve energy efficiency.	3
	Bulk storage tanks for processing chemicals such as sulphuric and/or hydrochloric acid, sodium hydroxide, and hydrogen peroxide will sit inside appropriately designed and sized secondary containment basins, physically separated from the containment basins for other chemical systems.	
	Mining solution and process water will be reused throughout the mining process, reducing water use requirements to the extent feasible and reducing the volume of treated effluent requiring discharge. Make-up water will be preferentially sourced from site runoff where possible.	
	Double-walled high-density polyethylene (HDPE) or equivalent piping will be used in the wellfields and will be freeze protected and secured to minimize pipe movement.	
	All contaminated wastes (e.g., mineralized drill cuttings, solid impurities removed from mining solution, dewatered reject solids) will be properly contained on a double lined waste pad with leak detection capabilities and an associated monitoring program. An adjacent pond will be used to collect runoff from the pad and water in the waste pond will be piped to the water treatment plant. Such waste will be disposed of either on-site or off-site at an approved facility.	

Section	Commitment	Category
	The ISR wellfield and processing plant will be designed to re-use most of the solutions inside each circuit; any excess water will be released to a surface water body once acceptable water quality is achieved. All treated effluent released to surface water will meet federal and provincial regulatory discharge limits.	
9.2.5.2.4	Disturbance to vegetation and soils will be avoided by clearly delineating Project Area boundaries (e.g., with the use of fencing, staking, or flagging), adhering to construction plans and schedules, and by restricting off-site machine use.	3
	Equipment and vehicles will arrive at the Project Area clean, and will be inspected for soil, plant material, and seeds, and cleaned as appropriate, to limit the potential for the introduction of invasive species and noxious weeds.	
	Appropriate setbacks around riparian and wetland ecosystems will be established and maintained where practicable.	
	Temporary workspaces or laydown areas will be sited and constructed within existing disturbance or on previously compacted soils, where practicable. In areas requiring clearing only, grubbing will be avoided, and roots and groundcover will be retained to the extent feasible.	
	Dust generation and subsequent deposition on plants will be limited through dust suppression techniques such as road watering and traffic management.	
	Areas with a high risk for the potential spread of invasive species and noxious weeds (i.e., within or adjacent to existing infestations) will be avoided to the extent practicable; if work must occur in these areas, invasive species management will be implemented before starting work.	
	Any leaks, spills or releases of hydrocarbons will be addressed in accordance with the Spill Response Plan.	
	Surface water drainages will be managed and maintained via culverts and ditches constructed along access roads and facility sites to facilitate surface drainage continuity and hydrologic connectivity.	
	Soil resources will be stripped/salvaged, stockpiled and otherwise handled in accordance with relevant soil management Best Management Practices and the Decomissioning Plan. An environmental monitoring program will verify that mineral soil within the Project Area has been appropriately stripped/salvaged and stockpiled.	
	Sediment and erosion control measures will be implemented.	
	Progressive reclamation and ecosystem-based revegetation will be conducted on disturbed areas as soon as practicable with the use of suitable native species and in accordance with the Decomissioning Plan.	
	Soil materials will be de-compacted, as necessary, to establish suitable conditions for revegetation.	
	Reclaimed areas will be re-sloped to approximate pre-construction contours, or stable contours, and revegetated as soon as practicable following disturbance.	
	Terrain will be re-contoured and scarified to create terrain diversity, variation in slope steepness, length, aspect, and shape to promote seed retention and establishment of plant ecosystems similar to the pre-existing condition.	

Section	Commitment	Category
9.2.5.2.5	Dust generation and subsequent deposition on plants will be limited through dust suppression techniques such as road watering and traffic management.	1, 2, 3
	Clean (i.e., uncontaminated) construction and fill materials will be used to minimize effects on existing vegetation.	
	Snow melt and runoff will be managed within the Project Area to prevent the potential release of contaminated runoff from affecting vegetation in adjacent areas.	
	Any leaks, spills or releases of hydrocarbons will be addressed in accordance with the Spill Response Plan.	
	Mitigation measures to reduce the potential for dispersion of radiation to vegetation will be implemented in accordance with the Radiation Protection Plan.	
	Disturbance to vegetation and soils will be limited by clearly delineating Project Area boundaries (e.g., with the use of fencing, staking, or flagging), adhering to construction plans and schedules, and by restricting off-site machine use.	
9.2.5.2.6, 9.2.5.2.7	Known listed plant occurrences in the proximity of planned disturbances will be clearly delineated (e.g., with the use of fencing, staking, or flagging) to facilitate avoidance to the extent practicable.	1, 2, 3
	Should Listed Plant Species be identified within the Vegetation LSA prior to construction, site- and species-specific mitigation measures to avoid and/or limit Project effects will be determined by a Qualified Ecologist	
	Equipment and vehicles will arrive at the Project Area clean, and will be inspected for soil, plant material, and seeds, and cleaned as appropriate, to limit the potential for the introduction of invasive species and noxious weeds.	
	Appropriate setbacks around riparian and Wetland ecosystems will be established and maintained where practicable.	
	Temporary workspaces or laydown areas will be sited and constructed within existing disturbance or on previously compacted soils, where practicable. In areas requiring clearing only, grubbing will be avoided, and roots and groundcover will be retained to the extent feasible.	
	Areas with a high risk for the potential spread of invasive species and noxious weeds (i.e., within or adjacent to existing infestations) will be avoided to the extent practicable; if work must occur in these areas, invasive species management will be implemented before starting work.	
	Any leaks, spills or releases of hydrocarbons will be addressed in accordance with the Spill Response Plan.	
	Herbicide use will be avoided within 100 m of any known listed plant occurrences. Where herbicide use is unavoidable, use will be restricted to direct application instead of broadcast spraying and completed by qualified personnel.	
	Surface water drainages will be managed and maintained via culverts and ditches constructed along access roads and facility sites to facilitate surface drainage continuity and hydrologic connectivity. Soil resources will be stripped/salvaged, stockpiled. An environmental monitoring program will verify that mineral soil within the Project Area has been appropriately stripped/salvaged and stockpiled.	

Section	Commitment	Category
	Progressive reclamation and ecosystem-based revegetation will be conducted on disturbed areas as soon as practicable with the use of suitable native species and in accordance with the Decomissioning Plan.	
	Terrain will be re-contoured and scarified to create terrain diversity, variation in slope steepness, length, aspect, and shape to promote seed retention and establishment of plant ecosystems similar to the pre-existing condition.	
	Wetland boundaries in the proximity of planned disturbances will be clearly delineated (e.g., with the use of fencing, staking, or flagging) to facilitate avoidance to the extent practicable.	
9.2.5.2.7	Equipment and vehicles will arrive at the Project Area clean, and will be inspected for soil, plant material, and seeds, and cleaned as appropriate, to limit the potential for the introduction of invasive species and noxious weeds.	2, 3
	Appropriate setbacks around riparian and Wetland ecosystems will be established and maintained where practicable.	
	Temporary workspaces or laydown areas will be sited and constructed within existing disturbance or on previously compacted soils, where practicable. In areas requiring clearing only, grubbing will be avoided and roots and groundcover will be retained to the extent feasible.	
	Dust generation and subsequent deposition on plants will be limited through dust suppression techniques.	
	Areas with a high risk for the potential spread of invasive species and noxious weeds (i.e., within or adjacent to existing infestations) will be avoided to the extent practicable; if work must occur in these areas, invasive species management will be implemented before starting work.	
	Any leaks, spills or releases of hydrocarbons will be addressed in accordance with the Spill Response Plan.	
	Surface water drainages will be managed and maintained via culverts and ditches constructed along access roads and facility sites to facilitate surface drainage continuity and hydrologic connectivity. Soil resources will be stripped/salvaged, stockpiled. An environmental monitoring program will verify that mineral soil within the Project Area has been appropriately stripped/salvaged and stockpiled.	
	Progressive reclamation and ecosystem-based revegetation will be conducted on disturbed areas as soon as practicable with the use of suitable native species and in accordance with the Decomissioning Plan.	
	Soil materials will be de-compacted, as necessary, to establish suitable, stable conditions for revegetation.	
	Pre-construction listed plant surveys will be undertaken within the Project Area within ecosites that were not encountered during the 2017 surveys, as well as within selected areas of the Project Area with the potential to support listed plants (e.g., transitional habitats favoured by Alaskan clubmoss).	
9.2.3.2, 9.2.5.2.6, 9.2.6.3.1, 9.2.7.3, 9.2.8.1	Targeted monitoring and inspection will be undertaken during Construction to verify that mitigation measures to reduce effects on Vegetation and Ecosystems, Listed Plant Species, and Wetlands VCs have been appropriately applied, maintained, and removed, where necessary.	2

Section	Commitment	Category
9.2.8.2	Vegetation monitoring will be conducted periodically throughout all Project Phases to reduce the potential for effects on vegetation associated with routine vegetation clearing and maintenance within the Project Area and to avoid the introduction and spread of invasive plant species.	3
9.2.8.3	Vegetation and soil sampling and laboratory analyses for constituents of concern will be conducted periodically throughout all Project Phases to identify if plants within the Vegetation LSA are accumulating constituents of concern within their tissues.	3
9.2.8.4	The Project Area (i.e., the area of maximum physical disturbance) has been reduced to the extent practicable, resulting in reduced habitat disturbance and noise propagation.	3
9.3.5.1, 9.4.5.1	During Operation, progressive reclamation activities will be completed where possible, and the progress and success of these activities will be assessed annually.	3
	Cleared brush will be stockpiled when possible, to be used in progressive reclamation.	
	Ongoing decommissioning of Project components will be completed when possible.	
	The main sources of noise will be related to transport of people and goods, drilling of holes for the freeze wall and wellfield, operation of the batch plant, operation of the processing plant, and operation of the pumphouses. The use of high-quality, low sound emission equipment and regular maintenance will reduce noise associated with Project activities.	
	All contaminated areas, such as waste ponds and pads, and the domestic landfill will be fenced to avoid contact with workers and wildlife. Fences will be monitored and maintained.	
	Project monitoring and management plans within the Environmental Management System will provide guidance to avoid or minimize potential effects of the Project on wildlife and wildlife habitat, including monitoring and follow-up programs, as appropriate. It will be in place during all phases of the Project and will be subject to ongoing review and revision as required. If monitoring identifies a need for additional or revised mitigation measures, a process of adaptive management (as described in the plan) will be triggered.	
9.3.5.2	The Project is located in the SK1 Boreal Shield Woodland Caribou Management Unit, which has low levels of anthropogenic disturbance and was exposed to large fire disturbances in the past 40 years (ECCC 2019). A Woodland Caribou Management Plan consistent with the management goals of SK-1 Management Unit will be developed and will include a detailed assessment of the need for habitat offsets.	2, 3
	It is Denison's understanding that the Government of Saskatchewan is currently compiling a Best Management Practices (BMP) document intended to guide proponents when developing their approaches to avoid or minimize adverse effects of project activities on woodland caribou and woodland caribou habitat. Once available, Denison will consider all applicable measures provided in the BMPs in their mitigation planning and implementation.	2, 3

Section	Commitment	Category
9.3.5.2.1	Employees and contractors will be provided with wildlife education and awareness training, including education about potential wildlife issues on site and training on the mitigation measures to avoid or minimize potential Project effects on wildlife and wildlife habitat.	2, 3
9.3.5.2.2	Employees and contractors will be educated on waste management policies that limit human-wildlife interactions.	3
	Designated employees will be trained in appropriate wildlife deterrent techniques to minimize wildlife interactions with the Project.	
	Employees and contractors will be requested to report wildlife observations, including prompt reporting of caribou observations and immediate communication to on-site staff. Wildlife encounters and outcomes will be monitored, and logbooks will be used to record wildlife observations. Logbooks and reports will be available to employees.	
	Personal firearms will be prohibited within the Project Area to prevent hunting activities	
9.3.5.2.3	If any individual were seeking access around the Project area to undertake Aboriginal and / or Treaty Rights, Denison staff would facilitate this, provided it were safe to do so given activities in the area	3
	Policies will be implemented prohibiting employees and contractors from feeding, approaching, or harassing wildlife species within the Project Area.	
	To support wildlife habitat regeneration, progressive reclamation and ecosystem-based revegetation will be conducted on disturbed areas as soon as practicable with the use of suitable native species and in accordance with the Decommissioning Plan.	
9.3.5.2.4	Timing of project activities will be assessed for their potential to disturb or remove wildlife and/or wildlife habitat (e.g., site clearing, soil disturbance) to determine potential effects on wildlife and wildlife habitat and whether additional mitigation measures may be required.	2, 3
	Site clearing and other works that involve disturbance of vegetation and/or soil will be completed during least-risk timing windows for wildlife (outside of denning and calving periods) to avoid disturbance during sensitive time periods, whenever practicable.	
	Pre-clearing wildlife surveys will be conducted within the Project Area.	
	In addition to installing secure fencing around all contaminated areas, buildings and other Project components will be designed and maintained to exclude wildlife from using buildings for refuge or shelter, and to deter wildlife from potentially becoming entrapped.	
9.3.5.2.5	Noise emitting Project activities will be managed to minimize sensory disturbance of wildlife, especially during sensitive time periods (such as denning and calving).	
9.3.5.2.6	Low sound emission equipment, regular maintenance of equipment, and the use of silencers or mufflers (whenever practical) will be used to reduce noise associated with Project activities.	3

Section	Commitment	Category
	Excessive noise-generating activities (unless required for the construction, operation, and decommissioning of the Project) will be avoided whenever practicable.	
	Lighting will be focused on work sites and not surrounding areas, to minimize sensory disturbance of wildlife.	
	Dust generation and subsequent deposition on vegetation and in waterbodies (including potential deposition of trace metals and radionuclides) will be limited through dust suppression techniques .	
	Should wildlife habitat features (i.e., dens, burrows, or lodges) be identified during pre-clearing wildlife surveys, they will be marked, and, prior to commencement of any construction-related activities, further action will be determined in accordance with provincial regulations.	
	Traffic and access control measures will be implemented, including reducing traffic volume by scheduling truck convoys, using high-volume haul trucks, and restricting public access to the Project site and roads (e.g., private vehicles, snowmobiles, all-terrain vehicles, and foot traffic). It is important to note that if any individual were seeking access around the Project area to undertake Aboriginal and / or Treaty Rights, Denison staff would facilitate this, provided it were safe to do so given activities in the area.	
9.3.5.2.7	Appropriate road signage will be installed (e.g., speed limits, wildlife crossings) along Project roads to minimize the risk of wildlife-vehicle collisions.	3
	Speed limits will be implemented to reduce the risk of wildlife-vehicle collisions.	
	Wildlife will have the right-of-way on Project roads, unless it is unsafe to stop (i.e., if a collision is imminent). Vehicles will not be used to encourage wildlife to move off Project roads.	
	Processes will be implemented for employees and contractors to slow down and/or stop vehicles/equipment to allow animals to move away or off the road before resuming normal road speeds for the area.	
	Employees and contractors will report and communicate the location and circumstances of any roadkill observed on or alongside Project roads. Large, bodied wildlife carcasses found will be reported to SK MOE and disposed of as directed to prevent scavenging.	
	Vegetation along Project roads will be managed to reduce attractiveness to wildlife (e.g., forage plants) and maintain appropriate sightlines for drivers to minimize wildlife-vehicle collisions.	
	Alternative measures on Project roads for de-icing and winter traction (e.g., sand, gravel) or dust suppression (e.g., water) will be implemented, whenever practicable.	
	Appropriately sized gaps in the roadside snowbanks during winter will be maintained to facilitate wildlife crossing and escape And, with that, reducing their risk of vehicle collisions.	
	New Project site and access roads will be designed to minimize sightlines for predators, whenever practicable, while still maintaining general road safety.	

Section	Commitment	Category
	Ditches and culverts along Project roads will be designed and maintained to minimize pooling of water. Roadside pools may attract wildlife.	
	A "no littering policy" for employees and contractors will be implemented within the Project Area.	
9.3.5.2.9, 9.4.5.2.7	In accordance with a Waste Management Plan, waste will be collected and temporarily stored in wildlife-proof containers to avoid attracting scavengers and with that increase the risk for human-wildlife interactions.	3
	The wildlife-proof containers will be inspected regularly for evidence of wildlife presence or access to waste disposal facilities. If evidence of wildlife presence or access to waste disposal facilities is detected, modified systems will be implemented and/or off-site waste disposal/incineration frequencies will be increased.	
	The use of hazardous materials will be limited as much as possible.	3
	Hazardous materials will be handled, stored, and disposed of appropriately and in accordance with a Waste Management Plan to avoid attracting wildlife (e.g., wildlife-proof containers, exclusion fencing).	
	Physical deterrents (e.g., fencing) will be employed around contaminated areas (e.g., waste ponds and waste pads) or hazardous materials storage areas to discourage wildlife use.	
	Appropriate hazardous materials management practices will be implemented in accordance with industry guidelines and a Waste Management Plan to minimize the risk of accidental spills or leakage.	
	Appropriate spill response kits will be positioned adjacent to areas where hazardous materials are stored in accordance with a Spill Response Plan.	
	A minimum 100 m distance from any waterbody will be maintained for fuel storage, refueling activities, or equipment servicing.	
	Appropriate fuel, chemical, and materials management practices will be followed to minimize the risk of accidental spills or leakage of diesel fuel, other hydrocarbons, and other hazardous materials.	
	Air emissions will be reduced to the extent practical through implementation and development of air emissions management and monitoring plans within the EMS	
	All vehicles and equipment will be equipped with industry-standard emission control systems; unnecessary idling of vehicles will be prohibited.	
	All vehicles and equipment will be maintained in good working condition (e.g., no leaks) and furnished with industry-standard spill response kits.	
	Mitigation measures to reduce the potential for dispersion of radiation to vegetation will be implemented in accordance with the Radiation Protection Plan.	
	Education on and enforcement of proper waste and hazardous materials management practices will be provided to employees and contractors.	

Section	Commitment	Category
	The plans within the EMS will provide guidance to avoid or minimize potential effects of the Project on avian species and their habitat, including monitoring and follow-up programs, as appropriate. It will be in place during all phases of the Project and will be subject to ongoing review and revision as required. If monitoring identifies a need for additional or revised mitigation measures, a process of adaptive management (as described in the plan) will be triggered.	
9.4.5.2	Site clearing and other works that involve disturbance of vegetation and/or soil will be conducted outside of the nesting season, whenever practicable. The nesting season for the Raptors, Migratory Breeding Birds, and Bird Species at Risk VCs in Saskatchewan spans a period from March 15 to August 31; Management plans within the EMS will provide details on nesting windows for avian species occurring in the Terrestrial RSA based on the Saskatchewan Activity Restriction Guidelines for Sensitive Species (SARGSS), which were established to support the avoidance of sensitive species' habitats during sensitive periods (SK MOE 2017).	2
9.4.5.2.1	Prior to commencing any site clearing (i.e., vegetation clearing and/or soil disturbance) during the nesting season, pre-clearing nest surveys will be conducted at that location within the Project Area.	2, 3
	Active nests and suspected nest locations will be protected with a no-disturbance setback buffer consistent with regulatory guidelines (e.g., the 2017 SARGSS [SK MOE 2017]) in accordance with the level of the disturbance and species until the young have successfully fledged, the nest is confirmed as no longer active (e.g., abandoned or depredated), or the nesting window has passed (for suspected nest locations). In the event that guidelines cannot be met, due to safety or operational concerns, SK MOE will be contacted for advice on the appropriate response to the situation.	
	Employees and contractors will be provided with wildlife education and awareness training, including education about potential avian issues on site and training on the mitigation measures to avoid or minimize potential adverse Project effects on avian species and their habitat.	
9.4.5.2.2	Employees and contractors will be educated on waste management policies that limit human-avian interactions.	3
	Designated employees will be trained in appropriate avian deterrent techniques to minimize avian interactions with the Project.	
	Employees and contractors will be required to report avian observations on site, injures or dead birds (which will be reported to SK MOE). Avian encounters and outcomes will be monitored, and logbooks will be used to record observations. Logbooks and reports will be available to employees.	
	Personal firearms will be prohibited within the Project Area to prevent hunting activities.	
9.4.5.2.3	If any individual were seeking access around the Project area to undertake Aboriginal and/or Treaty Rights, Denison staff would facilitate this, provided it were safe to do so given activities in the area.	3
	Policies will be implemented prohibiting employees and contractors from feeding, approaching, or harassing avian species within the Project Area.	

Section	Commitment	Category
	To support avian habitat regeneration, progressive reclamation and ecosystem-based revegetation will be conducted on disturbed areas as soon as practicable with the use of suitable native species and in accordance with the Decommissioning Plan.	
	Deflectors will be used on Project power transmission lines leading to the Project components, if appropriate. Measures will be taken to discourage birds, particularly raptors, from nesting on utility poles. This may include the design and installation of platforms near power poles to enhance nesting habitat while minimizing the risk of electrocution, equipment damage, and loss of service.	
9.4.5.2.4	Buildings and other Project infrastructure will be designed and maintained to exclude birds. Physical, visual, and/or auditory deterrents will be used to discourage avian use of buildings and other Project infrastructure for refuge, shelter, or nesting, and to deter birds from potentially becoming entrapped.	3
	Physical, visual, and/or auditory deterrents and exclusion measures will be employed around hazardous materials to discourage avian use as required.	
	Noise emitting Project activities will be managed to minimize sensory disturbance of avian species, especially during sensitive time periods (i.e., nesting).	
9.4.5.2.5	Low sound emission equipment, regular maintenance of equipment, and the use of silencers or mufflers (whenever practical) will be used to reduce noise associated with Project activities, to the extent practical.	3
	Directed lighting or light shielding, rather than broad lighting, will be implemented to minimize sensory disturbance on the avian VCs, and lighting will be focused on work sites and not surrounding areas. Times during evening hours when lighting is used will be limited, particularly between May and September, to minimize sensory disturbance on the avian VCs.	
	Dust generation and subsequent deposition on vegetation and in waterbodies (including potential deposition of trace metals and radionuclides) will be limited through dust suppression techniques such as road watering and traffic management.	
	Vegetation management, such as mowing and brush cutting, will be implemented along Project roads to reduce site attractiveness for avian species.	
9.4.5.2.6	Traffic and access control measures will be implemented, including reducing traffic volume by scheduling truck convoys, using high-volume haul trucks, and closing restricting public access to the Project site and access roads to the public (e.g., private vehicles, snowmobiles, all-terrain vehicles, and foot traffic). It is important to note that if any individual were seeking access around the Project area to undertake Aboriginal and / or Treaty Rights, Denison staff would facilitate this, provided it were safe to do so given activities in the area.	3
	Appropriate road signage will be installed (e.g., speed limits) along Project roads to raise awareness and minimize the potential for wildlife-vehicle collisions.	
	Speed limits will be implemented for a variety of reasons, including reduce the potential for avian-vehicle collisions.	

Section	Commitment	Category
	Employees and contractors will report and communicate the location and circumstances of any roadkill observed on or alongside Project roads. Large bodied wildlife carcasses found will be reported to SK MOE and disposed of as directed to discourage avian scavengers.	
	Alternative measures on Project roads for de-icing and winter traction (e.g., sand, gravel) or dust suppression (e.g., water) will be implemented, whenever practicable.	
	Ditches and culverts along Project roads will be designed and maintained to minimize pooling. Roadside pools that form may attract avian species.	
	The concentration of radionuclides in the environment will be monitored and associated radiation dose estimates would be periodically reassessed in accordance with the processes outlined in the EMS	
10.1.6.1.4	Nitrogen dioxide, particulate matter, and uranium should be monitored as part of an air emissions monitoring plan to confirm no residual effects on Human Health and Safety	2, 3
10.1.8	An Environmental Monitoring Program consistent with CSA N288.4-19 will be developed. Monitoring would focus on providing data to verify the predictions made by the ERA, to refine the models used in the ERA, and to reduce the uncertainty in the predictions made by the ERA. The environmental monitoring program should include collection of surface water, sediment, and soil samples as well as fish tissue samples, benthic invertebrate tissue samples, and country foods such as blueberries. Monitoring locations would be focused on Whitefish Lake, McGowan Lake and Russell Lake. Monitoring COPCs would include those identified as COPCs in the ERA, including metals and uranium-238 series radionuclides, and chloride and sulphate in lake waters.	2, 3
10.1.8	Health and Safety Plan for the Wheeler River Project to be in place prior to initiation of construction activities, compliant with applicable federal and provincial legislation.	2, 3
10.2.4.2.9, 10.2.9	Radiation Protection Plan for the Wheeler River Project to be in place prior to initiation of drilling in the wellfield, compliant with applicable federal legislation.	2
10.2.4.2.9, 10.2.9	Workers subject to radiation exposure to be Nuclear Energy Workers, and their radiation doses to be monitored and managed such that radiation doses remain below allowable dose limits for workers, as required by applicable federal legislation.	2
10.2.4.2.9, 10.2.8, 10.2.9	Workforce members will be transported to site by a fly-in/fly-out rotation or by a Denison shuttle and will, therefore, eliminate fishing on local lakes during commute to the site.	3
11.1.4.5.1, 11.2.4.5.1	Denison site vehicles will not be available for recreational purposes. Transportation to fishing areas via trucks or boats will not be permitted.	3
11.1.4.5.1, 11.2.4.5.1	To prevent land users from entering the Project Area, Denison will control access to the property with both a north and south security gate.	3

Section	Commitment	Category
11.1.4.5.1, 11.2.4.5.1	Denison is committed to maintaining positive relations with all Indigenous Communities of Interest and will be open to discussions on any issues or concerns that arise.	3
11.1.4.5.1	Denison will consider all applicable measures provided in the Best Management Practices in their mitigation planning and implementation	2, 3
11.1.5.1	ILRU, OLRU, and Infrastructure and Services included mitigation options planned to reduce the risk of increased traffic as follows: • Air transportation will be used to transport most workers between the Project site and communities at designated pick-up and drop-off points. • Advanced driver training will be provided on the transport of nuclear substances. • An Emergency Response Plan will be developed in case there is a spill during the transportation of dangerous goods or hazardous products. • All materials transported by truck will be compliant with any weight restrictions or permits, spring road restrictions, or geometric constraints set out by the Saskatchewan Ministry of Highways and Infrastructure. Denison will maintain roads within the Project site and the main access road to the site.	2, 3
11.1.5.3, 11.2.5.3, 11.3.5	ILRU and OLRU included that noise mitigation includes the following strategies: • The use of high-quality, low sound emission equipment and regular maintenance will reduce noise associated with Project activities. • High-noise activities will be located further away from human receptor(s), such as a local leaseholder. • Noise-generating equipment will be situated behind on-site obstructions. • Monitoring will take place, including collecting sound level measurements from these sources once they are operating and determine whether its actual impact is lower than that which was modelled.	3
11.1.5.3, 11.2.5.3	ILRU and OLRU included mitigation measures that air emissions will be reduced by: • directing processing plant exhaust from drying and packaging areas through a stack prior to release outside of the building. • designing the stack height based on results of air dispersion modelling to be an appropriate height for optimal dispersion. • employing battery-powered light vehicles where practical to reduce air emissions and noise levels and improve energy efficiency.	3
11.1.5.3, 11.2.5.3	Additional strategies included in ILRU and OLRU to avoid or reduce the likelihood of total suspended particulate and particulate matter exceedances include: • limiting material handling activities during dry conditions and high winds; • limiting vehicle and equipment speeds on unpaved roadways/surfaces; • optimizing the number of vehicle and equipment movements and minimize travel distances, where possible;	3

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	• maintaining unpaved roads via grading or other maintenance practices to reduce the amount of fine particles available for dispersion; and • collecting dust measurements during Construction, Operations, and Decommissioning, and determine whether the actual effect of Project activities is lower than what was modelled.	
11.1.5.3, 11.2.5.3	ILRU and OLRU included mitigation measures that Denison will minimize potential release of radiological and non-radiological waste by implementing the following: • A wash bay will be made available to clean items, equipment, and vehicles that may have been in contact with potentially contaminated materials. Contaminated water from the wash bay will be collected in a sump tank and routed to the water treatment plant for treatment and discharge. • Bulk storage tanks for processing chemicals will sit inside appropriately designed and sized secondary containment basins, physically separated from the containment basins for other chemical systems. • Surface pipelines will be designed to have secondary containment or catchment and have leak detection systems in place at key locations. • Contaminated wastes (e.g., mineralized drill cuttings, solid impurities removed from mining solution, dewatered reject solids) will be properly contained on a double lined waste pad with leak detection capabilities and an associated monitoring program. • Radiological clearance scanning will be conducted as required for any items, equipment, and vehicles leaving the Project Area. • A freeze wall will be established around the uranium deposit to reduce groundwater disturbance. • Mining solution and process water will be reused throughout the mining process, reducing water use requirements to the extent feasible and reducing the volume of treated effluent requiring discharge. Make-up water will be preferentially sourced from site runoff where possible. • Double-walled high-density polyethylene (HDPE) or equivalent piping will be used in the wellfields and will be freeze protected and secured to minimize pipe movement. • The ISR wellfield and processing plant will be designed to re-use most of the solutions inside each circuit; any excess water will be released to a surface water body once acceptable water quality is achieved. All effluent released to surface water will meet federal and provincial regulatory discharge limits. • All contaminated areas, such as waste ponds and pads, will be fenced to avoid contact with workers and wildlife. Fences will be monitored and maintained. • Ponds will maintain a minimum freeboard of at least 1.0 m. • Having two ponds allows for increased operational flexibility, as one pond can be undergoing monitoring while the other pond is releasing water to Whitefish Lake (LA-5). All effluent released to surface water will meet federal and provincial regulatory discharge limits.	3
11.1.5.3, 11.2.5.3	• Denison will implement an Environmental Monitoring Program consistent with Canadian Standards Association for nuclear facilities and mines. Monitoring will focus on providing data to verify the predictions made by the ecological risk assessment (ERA), to refine the models used in the ERA, and to reduce the uncertainty in the predictions made by the ERA. The Environmental Monitoring Program will include collection of surface water, sediment, and soil samples as well as fish tissue samples, benthic	3

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	invertebrate tissue samples, and country foods such as blueberries. Monitoring locations would be focused in the area of Whitefish Lake, McGowan Lake, and Russell Lake	
11.1.5.3, 11.2.5.3, 12.1.5	As outlined in Denison's Indigenous Peoples Policy, Denison recognizes the critical necessity of advancing reconciliation with Indigenous peoples in Canada and the important role of Canadian business in the reconciliation process. Denison is committed to providing Indigenous people and businesses with sustainable economic opportunities and benefits and sharing the economic benefits of Denison's business activities. Denison is currently working with the Indigenous COI to make sure the Project outcomes include the development of mutually beneficial relationships and minimized Project effects, and is focussed in the following areas: engagement, empowerment, environment, employment, and education.	3
11.1.5.3, 12.1.5	Trapping activity in the LSA was known only to be conducted by a single ERFN Trapper, who is now passed away, though the area is noted to be an historically active trapping area. If/when the trapline is transitioned to a different trapper, Denison will work collaboratively with the individual to permit access where it is safe to do so, and to provide compensation for losses to trapping income, if applicable.	2,3
11.2.4.3.1, 12.1.5, 13.4.	Should noise monitoring results exceed predictions or if the leaseholder has future concerns about noise levels, Denison remains open to meeting with the leaseholder and working on noise mitigation strategies to reduce noise effects as needed.	2,3,4
11.2.4.5.1	Denison is committed to maintaining positive relations with all local interested parties and will be open to discussions on any issues or concerns that arise.	3
11.2.4.5.1	Surface lease agreements, which are required to conduct mining in Saskatchewan, also contain commitments for environmental protection, occupational health and safety, and socio-economic benefits for residents of Saskatchewan's North. One provision within surface lease agreements is compensation for commercial loss of income. Payments are typically made to individuals who: 1) held a lease or permit to use the lands immediately prior to the establishment of the mine's surface lease; and 2) used the land to generate commercial income, such as from trapping. Should the need arise, compensation for loss of income may be disbursed to the trapper selected to take up trapping in the Project Area.	3
11.2.5.2	To reduce the potential negative effects of Project employment, Denison will implement culturally sensitive employment policies that support the attraction and retention of an Indigenous workforce. Denison will work with the Indigenous Communities of Interest to make sure understanding exists regarding the culturally important periods for ERFN and Kineepik Métis Local #9 (Pinehouse), including important harvest times and cultural camp schedules. Denison will facilitate Indigenous employees taking time off to participate in cultural activities with family or with the broader community, where appropriate.	3
12.1.5	Actions to minimize the extent the Project contributes to in- and out-migration in the LSA include the following: • Denison will initially prioritize the Communities of Interest in terms of employment opportunities and will work with the leadership of these communities to assist in determining hiring practices during all phases of the Project. Priority for hiring will then focus on Indigenous and non-Indigenous residents of the RSA and then beyond the RSA. • Employees will not be permitted to commute to the site by any means other than the fly-in/fly-out worker rotation systems or Denison arranged shuttle.	3

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	• Pick-up and drop-off points are being planned at two locally central points in communities within the LSA, at one additional site in Saskatchewan (i.e., Saskatoon), and potentially at other locations. Housing for workers will be provided at the camps with free accommodations and meals.	
12.2.4.2.1	The suite of tools used to address the issues that may arise from increased income and changes to community cohesion are often interrelated and focus on providing education and supports to the individual workers, and in some instances their families. This will include the establishment of: • health and wellness programming on-site, which will be accessible to all workers. • a primary care paramedic will be contracted to provide care on site through all phases of the Project. • Denison will provide the appropriate level of First Aid and CPR training to employees to ensure adequate coverage. • Health promotion and on-site health care programming will be designed to reflect the needs/interests of the workforce and may include topics such as tobacco cessation, health and stroke awareness, diabetes awareness, mental health and addictions support, cancer awareness, and nutrition awareness. • Immunization programs may be administered through the on-site health team. • Programming may include the development of life skills programming to address topics such as managing personal finances and coping with stressful situations. • Recreation options will be offered on site to promote health and wellness. • Denison will provide space for an on-site Elder counsellor to provide culturally relevant programing and support. • An Employee and Family Assistance Program (EFAP) will also be part of each worker's benefits package and will provide supports to individuals and their families that may not be readily available in their communities. Employee and family assistance programs typically provide free assessments, short-term counselling, referrals, and follow-ups to employees and their family members who are having personal or work-related problems. Generally, these programs can be accessed remotely by workers and their immediate family. Denison will aim to educate their staff on the offerings of their EFAP, as well as making information shareable with each worker's family.	3
12.2.5, 12.3.5.	Denison is committed to improve the financial literacy of its workforce, and is committed to offering life skills and financial literacy training to staff (either mandatory or as an optional offering to employees on site, to be determined cooperatively with the communities in the LSA).	3
12.2.5	A no alcohol and drug policy will be established at the Project site.	3
12.2.5	Denison's Environment, Health, Safety, and Sustainability Policy will be enforced.	3
12.2.5	Liaison with LSA communities and relevant authorities (e.g., RCMP, health and service providers) will continue throughout the life of the Project.	3
12.2.5, 12.3.5.	Denison will plan a workforce transition plan prior to decommissioning of the mine.	3

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12.2.5, 13.4.	Culturally sensitive employment policies that support the Indigenous workforce will be implemented (e.g., having an Elder representative at the Project site to provide cultural programming).	3
12.2.5	The following mitigation measures were identified in Infrastructure and Services and will be implemented to reduce adverse effects on emergency services capacity: • First aid facilities will be supplied during construction. A primary care paramedic will be contracted to provide care on site through all phases of the Project. Denison will provide the appropriate amount of First Aid and CPR training to make sure employees have adequate coverage. • Mandatory safety orientations will be held for contractors and workers. • First aid personnel will provide transport to a hospital by air when required or by Saskatchewan's air ambulances; • Health and safety Management Program will be developed for Construction, Operation, and Decommissioning. • Workers will be trained in fuel handling, equipment maintenance, and fire prevention and response measures. • Denison's Environment, Health, Safety, and Sustainability Policy will be enforced. • Continued liaison with LSA communities and relevant authorities (e.g., RCMP, health and service providers) will be undertaken to provide updates, discuss any Project-related concerns, and make sure that the required resources are in place. • Project-specific contingency, emergency response, and spill prevention plans will be developed to reduce the likelihood and severity of accidents and potential fires. Based on the outcomes of discussions with Communities of Interest, Denison may provide support and/or training to local emergency services to make sure that staff are adequately prepared in the unlikely event of an accident, malfunction, or spill on Highways 914 or 165. This may include the provision of specialty materials or equipment to deal with an emergency response.	3
12.3.5.	Denison, through the Human Resource Development Plan, will initially prioritize Indigenous and non-Indigenous communities in the LSA in terms of employment and training opportunities (anticipated to be in institutions in northern Saskatchewan) and will work with the leadership of these communities to assist in determining hiring and training practices during all phases of the Project, which could include such items as on-the-job training and career counselling to help with advancement from foundational positions, advance sharing of job qualification requirements, clearly identifying training requirements and working with various training institutions to make sure such appropriate training is available, and creation of scholarship and support programs. Priority for employment and training will then focus on Indigenous and non-Indigenous residents of the RSA and then beyond the RSA.	3
13.4	Denison will establish a procurement approach throughout all phases of the Project, prioritizing the procurement of goods and services for the Project toward businesses based within the LSA communities prior to looking elsewhere in northern Saskatchewan, southern Saskatchewan, and/or outside of Saskatchewan. This procurement approach may consider advance sharing of purchasing requirements of goods and services throughout all phases of the Project, efforts	3

Section	Commitment	Category
	to increase the capacity and capabilities of businesses to increase successful bidding outcomes, and the development of a business registry.	
13.4	Denison will negotiate with the Province of Saskatchewan to develop the Project's Surface Lease Agreement and the Human Resource Development Agreement, which will outline measures in relation to socio-economic parameters related to the Project.	3
13.4	Denison is committed to setting high standards for various aspects of its operations, which will serve to mitigate potential Project-related effects, including those that may be associated with postulated accident and malfunction scenarios n practice, these standards would be upheld through adherence to corporate health, safety, environmental, and quality policies as manifested in various Project-related programs, including: • a quality management program; • an occupational health and safety program; • a radiation protection program; • an environmental protection program; • an emergency preparedness and response program; • a fire safety program; • a maintenance program; and • a wellfield and surface water program. Within the programs, detailed plans and procedures would be developed for the Project that would be site specific and in accordance with corporate policies, including: • a radiation protection plan; • a spill response plan; • an emergency response plan; • a traffic and transportation plan; • a travel management plan; • process monitoring and operational procedures; • wellfield development and control procedures; • security procedures; • environmental monitoring procedures; • personnel training procedures; • regular and preventive inspection and testing procedures; and • surface water and flood management procedures.	1,2,3
14.5.4	Project design features and considerations are the first line of defence in regards to preventing accidents and malfunction. Examples of proposed design features and considerations are summarized in the following bullets. • The processing plant will be designed with expert consideration of potential environmental and health and safety effects to mitigate interactions to the extent possible. • The floor of the process plant will be graded as required and sumps will be installed to collect any spills. • Ventilation in the processing plant will be designed with the ALARP principle in mind to provide sufficient worker protection, and monitoring systems will be installed to safeguard worker health and safety.	1,2,3

Section	Commitment	Category
	• Dust control measures and good housekeeping practices throughout the processing plant will form a critical component of the radiation protection management plan developed for the Project. • Processing plant exhaust, mainly from drying and packaging areas, will be directed through a stack and released outside the building. • The stack height will be designed to an appropriate height for optimal dispersion based on the results of air dispersion modelling. • Bulk storage tanks for processing chemicals (e.g., sulphuric and/or hydrochloric acid, sodium hydroxide, and hydrogen peroxide) will be located outside the processing plant. • Storage tanks will sit inside appropriately designed and sized secondary containment basins. The secondary containment basin for each chemical system will be physically separated from the containment basins for other chemical systems. • Each material will be stored, handled, recycled, and/or disposed of in an appropriate manner that meets the requirements of The Hazardous Substances and Waste Dangerous Goods Regulations (Government of Saskatchewan 2000). • No fuels, oils, or other hazardous substances will be stored within 100 m of any waterbody, and no equipment maintenance or re-fuelling will be conducted within 100 m of a waterbody. • Denison will maintain an up-to-date record of the various hazardous substances on site and will maintain Safety Data Sheets and appropriate procedures for spill management, handling, and clean up in an accessible location. • Fuel storage and distribution infrastructure will be constructed in accordance with applicable legislation requirements (e.g., The Hazardous Substances and Waste Dangerous Goods Regulations; Government of Saskatchewan 2000). Stationary and mobile equipment will be fueled with a fuel-dispensing truck. • Ventilation in the pumphouses will be designed with the ALARP principle in mind to provide sufficient worker protection from potential radon and radon progeny exposure. Monitoring systems will be in place to confirm that these mitigation measures are meeting design specifications. • Double-walled, high-density polyethylene piping, or equivalent, will be used in the wellfields to meet design operation and environmental conditions. • The lines from the processing plant, pumphouses, and individual well lines will be freeze protected and secured to minimize pipe movement. • Groundwater monitoring wells will be installed at various locations and depths in and around the wellfield. The monitoring wells will allow for both groundwater sample collection and measurement of groundwater level. • After an injection, recovery, or monitoring well has been completed, and before it is made operational, mechanical integrity testing of the well casing will be completed to confirm the installation has been successful and the well is functioning as designed. Well casings that fail integrity tests will be repaired before the well is placed into service. • The very low permeability basement rock below the uranium deposit at the Project serves as a natural aquitard. • The site access route was selected with consideration of distance from waterbodies.	

Section	Commitment	Category
	• Water will be collected from the waste pond (which will collect runoff from the waste pad) and the processing plant terrace and then directed to the water treatment plant. • Ponds or pads designed to temporarily or permanently store potentially radioactive materials will be double lined, with leak detection capabilities and an associated monitoring program to facilitate containment. • Fuels will be stored in approved, above-ground, double-walled storage tank(s) equipped with secondary containment in accordance with provincial regulations and standards. • Fuel storage and fueling activities will be located at least 100 m from waterbodies.	
15	Denison will appropriately design buildings to meet the standards of the National Building Code of Canada.	3
15.2.2	It is expected that Denison will enter into a fire control agreement with the province (as other northern uranium mine and mill facilities have done) as per *The Prairie and Forest Fire Act, 1982*. This will allow for fire fighting support from the province should a fire develop near the Project. Denison's Forest Protection Program will include information on how to prevent and suppress forest fires near the Project. Fire guards (i.e., buffer zones of 30 m) will be established and maintained between specific Project facilities (e.g., main camp) and forested areas to minimize potential risks from forest fires. On-site emergency response equipment will be available for fire suppression and fire fighting. The fire water system for the Project will include a freshwater tank, two electric fire water pumps, and a back-up diesel fire water pump for on-site fire suppression needs. Denison's Emergency Preparedness and Response Program for the Project will address appropriate responses for forest fire events that occur. Denison will appropriately design facilities and operate the site in accordance with the Fire Protection Program, which will be developed specifically for the Project and based on proven programs at existing northern sites. Consideration for the projected increase of forest fire frequency and severity due to climate change in the coming decades will be made.	2, 3
15.3.2	Mitigation and management plans for major precipitation events (e.g., heavy, prolonged periods of precipitation lasting days to weeks) or a rapid spring melt in the region surrounding the Project Area: • Suitable equipment and design systems will be selected for the Project to enable operation under heavy precipitation events. • Denison's Emergency Preparedness and Response Program for the Project will include information on planning for and responding to severe weather events. • Weather forecasts will be monitored, which will provide advanced warning and time to prepare for extremes in precipitation. • Health and safety policies will be implemented, and risk assessments will be undertaken, before working in adverse weather conditions. • Staff will be educated through formal training programs to make sure they understand the risks of and procedures for working in extreme weather event conditions. • Employees will be required to wear appropriate personal protective equipment (e.g., rain gear) while working outside in extreme weather. Radio communication will be maintained with anyone working away from the mine site under these conditions.	2, 3

Section	Commitment	Category
	• Diesel generators will be available on site at strategic locations to provide back-up power in the case of a power outage. Generators will be used to maintain power to the processing plant and the accommodations facility, as well as to maintain other essential services, as required. • Water management infrastructure will be designed to meet the requirements of the Environmental Code of Practice for Metal Mines (e.g., "Surface drainage facilities should be designed to handle peak conditions at least equivalent to a once in 100-year flood event"; ECCC 2009). • The site surface drainage network for the Project will either collect or divert water. Where practical, reasonable efforts will be made to divert non-contact surface runoff away from any developed features in the Project Area. Precipitation and snowmelt runoff that contact potentially contaminated surfaces will be captured, collected, and diverted to impound areas identified as site runoff ponds or collection areas. • The wellfield runoff pond has been sized to accommodate the Probable Maximum Precipitation reporting to the pond and sized to 38,200 m^3. • The ponds and pads in the Project Area have been designed to accommodate the Probable Maximum Precipitation, and the water management infrastructure will allow for transferring water from pond to pond as required. • Snow will be cleared from roadways and moved away from building air supply and exhaust locations. Roadways will be repaired and maintenance will be issued as required. Ditches and culverts will be monitored and cleared of any debris within the channel when safe to do so.	
15.4	Mitigation and management plans for drought: • Suitable equipment and design systems will be selected for the Project to enable operation during drought. • Denison intends to recycle process water to the greatest extent possible, thereby reducing the demand for a fresh water supply, which will be advantageous during drought conditions. Fresh water will be sourced from either a shallow groundwater well or an intake from Whitefish Lake.	3
	Mitigation and management plans for extreme high air temperatures: • Suitable equipment and design systems will be selected for the Project to enable operation under extreme high temperatures. • Denison's Emergency Preparedness and Response Program for the Project will include information on planning for and responding to severe weather events. • Health and safety policies will be implemented, and risk assessments will be undertaken before working in adverse weather conditions. • Staff will be educated through formal training programs to make sure they understand the risks of and procedures for working in extreme weather event conditions. • Employees will be required to wear appropriate personal protective equipment while working outside in extreme weather. Radio communication will be maintained with anyone working away from the mine site under these conditions. • Weather forecasts will be monitored, which will provide advanced warning and time to prepare for extremes in air temperature, precipitation, and wind.	2, 3

Section	Commitment	Category
	• Diesel generators will be available on site at strategic locations to provide back-up power in the case of a power outage. Generators will be used to maintain power to the processing plant and the accommodations facility, as well as to maintain other essential services, as required.	
	Mitigation and management plans for extremely low air temperatures: • Suitable equipment and design systems will be selected for the Project to enable operation under extreme low temperatures. • Denison's Emergency Preparedness and Response Program for the Project will include information on planning for and responding to severe weather events. • Health and safety policies will be implemented, and risk assessments will be undertaken before working in adverse weather conditions. • Staff will be educated through formal training programs to make sure they understand the risks of and procedures for working in extreme weather event conditions. • Employees will be required to wear appropriate personal protective equipment (e.g., cold weather gear) while working outside in extreme weather. Radio communication will be maintained with anyone working away from the mine site under these conditions. • Weather forecasts will be monitored, which will provide advanced warning and time to prepare for extremes in air temperature, precipitation, and wind. • Diesel generators will be available on site at strategic locations to provide back-up power in the case of a power outage. Generators will be used to maintain power to the processing plant and the accommodations facility, as well as to maintain other essential services, as required.	2, 3
	Mitigation and management plans for extremely high winds: • Suitable equipment and design systems will be selected for the Project to enable operation under high wind events. • Staff will be educated through formal training programs to make sure they understand the risks of and procedures for working in extreme weather event conditions. • Denison's Emergency Preparedness and Response Program for the Project will include information on planning for and responding to severe weather events. • Employees will be required to wear appropriate personal protective equipment (e.g., cold weather gear, rain gear) while working outside in extreme weather. Radio communication will be maintained with anyone working away from the mine site under these conditions. • Weather forecasts will be monitored, which will provide advanced warning and time to prepare for extremes in air temperature, precipitation, and wind. • Diesel generators will be available on site at strategic locations to provide back-up power in the case of a power outage. Generators will be used to maintain power to the processing plant and the accommodations facility, as well as to maintain other essential services, as required.	2, 3
	The Project will be developed with consideration of the predicted changes in climate conditions that could occur during its lifecycle from pre-construction design through to Post-Decommissioning monitoring. The Project has also been designed using engineering best practices and will meet current regulations and building codes.	2, 3

Section	Commitment	Category
	• Denison will develop an Emergency Preparedness and Response Program for the Project to address forest fires and extreme weather that may occur. If unforeseen effects on the Project occur from longer and more severe forest fire seasons associated with climate change, or increased frequency or severity of extreme weather (e.g., ice storms, snowstorms, flooding), Denison will apply adaptive management that includes monitoring climate factors so that they can proactively mitigate or prevent adverse climate effects on the Project.	

1 Categories for commitments include 1) commitments to include in licensing, 2) commitments prior to construction; 3) commitments to include as part of construction, operation or decommissioning; 4) commitments to include post decommissioning.