

4.0 Proposed Environmental Management Practices

The potential impacts associated with this project have been minimized by selecting a groundwater source that has a very limited interaction with the surface environment, and by designing well head facilities that have a minimal surface exposure or need for permanent clearing of land.

There are no direct or indirect residual impacts predicted for this project after the environmental management practices specified below and in other sections of this submission have been implemented. This Environment Act Proposal and the resultant Environment Act License will be referenced in the Tender Documents and Operation/Maintenance Manuals and the contractor/operators will be required to familiarise themselves with these documents and comply with the requirements.

The following partial list of practices (as applicable to this project) from standard environmental management practices is intended to mitigate or prevent potential environmental impacts. This list has been formulated in consultation with specialists and other agencies by assessing common construction activities and their potential environmental impacts.

- Water spraying is an important, common and practical procedure to control dust during construction. This procedure should be applied, as required, to alleviate potential dust problems throughout the construction period.
- Existing drainage patterns should not be intentionally altered and appropriate measures should be taken near water courses to provide proper erosion control to prevent excessive siltation and sedimentation.
- Clearing or damage to vegetation outside of the area designated for construction will not be permitted without prior justification and authorisation from the project supervisor. Borrow material requirements will be minimal and will be obtained from the commercial aggregate suppliers in the area.
- All waste disposal shall be undertaken in accordance with existing regulations. Contractors shall be required to conduct all day-to-day operations in such a manner as to avoid creating any unpleasant appearances or any conditions that will be detrimental to the surrounding area. Waste materials and refuse shall be promptly disposed of in a manner that will not contaminate or impair the surrounding area. Every effort shall be made to prevent debris from entering a watercourse.
- Construction vehicle maintenance and storage of construction materials and fuels shall occur far enough away from all watercourses such that accidental spills can be prevented from entering the watercourse. There shall be no refuelling or oil changes within 100 metres of any watercourse or the water wells. Bulk storage of fuels or lubricants shall not be allowed. Fuel and lubricants are to be brought to site on an as required basis. Contractors shall be required to keep construction machinery in good working condition to avoid localized objectionable gaseous and particulate emissions.
- During construction, to avoid contamination of the environment, the Contractor shall not be permitted to allow liquid or solid wastes, or fuel to be deposited upon the ground or into bodies of water contrary to acts, regulations, and guidelines of any regulatory agencies (e.g., MR 97/88R – Storage and Handling of Gasoline and Associated Products). When servicing requires the drainage or pumping of

lubricating oils, or other fluids from the equipment, a groundsheet of suitable material and size shall be spread on the ground to catch all fluid in the event of a leak or spill. An adequate supply of suitable absorbent material and any other supplies and equipment necessary to immediately clean up spills must be available. Storage and disposal of liquid wastes and filters from equipment maintenance, and any residual material from spill cleanup must be contained in an environmentally safe manner and in accordance with any existing regulations.

- The contractor will ensure that waste oils, fuels and hazardous wastes (if any) shall be handled in a safe manner. Contractors will be required to transport, store and handle all such substances as recommended by the suppliers and/or manufacturers and in compliance with all applicable federal, provincial or municipal regulations. Manitoba Environment shall be notified immediately if a reportable spill occurs.
- Upon completion, and before final acceptance of the work, all ground occupied by the Contractor in connection with the work, shall be cleared of all rubbish, excess materials, temporary structures and equipment. All parts of the work area shall be left in an acceptable condition. All waste disposal grounds receiving debris from the project must be operated under the authority of a valid permit issued pursuant to MR 150/91 respecting Waste Disposal Grounds.
- Exposed areas will be seeded using native plant species as much as possible.

Beyond these standard construction practices, the following specific mitigation measures have been developed.

Access to Rights-of-Way and Work Sites: To minimise the effects of off-road travel on soils and terrain (through rutting, slumping and other forms of mechanical erosion), access to work sites will be limited to the clearly marked designated access trails and work areas.

Wildlife and Habitat - To minimize the impacts to wildlife and wildlife habitat, an adequate buffer zone should be maintained around dens and nests (30 m minimum, up to 100 m). The federal *Migratory Birds Convention Act* prohibits the destruction of active birds nests, eggs or young. Therefore clearing will not occur from April 1 – July 31 to avoid the destruction of active bird nests.