

# **Appendix 5-4**

## ESRA's GR130s Environmental Protection Specifications

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**GR130 – ENVIRONMENTAL PROTECTION SPECIFICATIONS**

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## **GR130 – ENVIRONMENTAL PROTECTION SPECIFICATIONS**

### **GR130.1 DESCRIPTION**

- .1 This Specification covers general requirements for the protection of the Environment.

### **GR130.2 ENVIRONMENTAL PROTECTION PLAN**

- .1 The Contractor shall plan and implement the Work of this Contract in accordance with the Specifications and Drawings.

### **GR130.3 SUBMITTALS**

- .1 The Contractor shall submit details of the proposed Designated Areas for review and acceptance by the Contract Administrator in accordance with the General Conditions. Submittals shall include marked up Drawings, and coordinates of the proposed Designated Areas including access, and shall provide sufficient detail to demonstrate full compliance with these specifications. Designated Areas requiring submittals are:
  - .1 laydown and staging area(s);
  - .2 waste storage area(s);
  - .3 fuel storage and refuelling area(s);
  - .4 equipment servicing area(s);
  - .5 work camp(s);
  - .6 parking area(s);
  - .7 cement batch plant(s);
  - .8 cement washout area(s); and
  - .9 others as required by the Contract Administrator.
- .2 The Contractor shall submit for review and acceptance by the Contract Administrator 10 business days in advance of the start of work:
  - .1 Environmental Emergency Plan for Spill Response and Remediation;
  - .2 Material Safety Data Sheets;
  - .3 A Water Quality and Fish Protection Plan including but not limited to:
    - Construction Phase Erosion and Sediment Control measures;
    - In-water works;
    - Water quality monitoring;
    - Isolation plan;
    - Fish salvage and;
    - Mussel salvage.
  - .4 monthly reports providing the records as specified in GR130.5 of this Specification;
  - .5 Waste Management Plan;
  - .6 Material Management Plan in the event of an Unplanned Shutdown;
  - .7 Problem Wildlife Management Plan;

- .8 Cement Washout Plan;
- .9 Petroleum Storage and Equipment Fuelling and Servicing Plan;
- .10 Evacuation and Emergency Preparedness Plan in the Event of a Wildfire;
- .11 Copies of all required approvals, clearances, permits, licences, and certificates issued to the contractor, or their sub-contractors, including but not limited to:
  - Batch Plant Environment Act Licence;
  - Fish collection permits;
  - Septic permits;
  - Crown Lands Well permit.
- .12 Other submittals as required.

#### **GR130.4 ENVIRONMENTAL APPROVALS AND AUTHORIZATIONS**

- .1 No work is to begin without having the proper permits or authorizations on hand for said work.
- .2 The Contractor shall adhere to conditions specified in any and all permits, authorizations, licences, approvals and letters of advice or directive issued for the Work.
- .3 Where ESRA applies for permits, authorizations, licences, approvals and letters of advice or directive to any regulatory body to facilitate the Contractor's work plan, there shall be no award for damages, delay claims or other costs by the Contractor on ESRA as a result of delays in issuance or rejections of applications.

#### **GR130.5 RECORD KEEPING**

- .1 The Contractor shall maintain a record file at the Site in which all relevant information relating to materials handling, spills, leaks, releases, and the implementation and adjustment of the environmental protection measures shall be documented. The Contractor shall maintain a copy of these records for a minimum of 5 years. Relevant information and/or significant events to be documented and provided to the Contract Administrator in a timely fashion may include, but are not limited to:
  - .1 all accidents, spills, leaks, and releases and the reporting and clean-up procedures used;
  - .2 any reviews, improvements and adjustments to the environmental protection measures;
  - .3 details of all environmental training sessions, including the schedule of these sessions and the names of participants;
  - .4 a full inventory of dangerous goods brought onto the site;
  - .5 a full inventory of all hazardous wastes encountered on the site;
  - .6 records of all waste hauled from the site for disposal, including the location, name and description of the disposal facility and waybills/manifests;
  - .7 records of all material hauled from the site for recycling, including the location, name and description of the person or facility the material was delivered to;
  - .8 records of all fuel transported and stored at the site;
  - .9 records of equipment inspections and maintenance;

- .10 records of all public complaints;
- .11 records of actions taken to remove deleterious substances and debris from watercourses;
- .12 records of annual use of pesticides; and
- .13 wildlife encounters and/or management measures employed.

#### **GR 130.6 GENERAL**

- .1 All construction traffic shall be restricted to the Site, existing roads, or approved access routes.
- .2 The Contractor shall employ all reasonable precautions to prevent the general public from entering the Site.
- .3 The Contractor shall maintain equipment and vehicles in good working order and shall restrict the servicing of equipment to Designated Areas. Where equipment and vehicles cannot be moved to the Designated Area, spill containment is required.
- .4 The design of temporary works shall be provided to the Contract Administrator and shall be approved in advance of construction. There may be cases where community concerns and/or changing regulatory schemes may require the Contractor to design temporary works beyond what is outlined in regulation or in these General Requirements. If costs associated with these additional temporary works are not identified prior to the Submission Deadline, GC7.00 will apply.
- .5 In the design of temporary works, the Contractor shall assume, unless otherwise advised in writing by the Contract Administrator, that all watercourses are navigable and shall design temporary works in accordance with this premise. Where navigability cannot be provided, the Contractor shall provide a plan that outlines warning signage and markers and alternate means of passage for approval by the Contract Administrator.

#### **GR130.7 INSPECTIONS**

- .1 Periodic inspections of the site will be conducted to ensure that the Site is managed in accordance with the specifications. The Contractor shall address inadequate environmental protection measures, remediate contamination and restore site conditions to the satisfaction of the Contract Administrator.
- .2 As sites are decommissioned the CA will retain a third party independent environmental consultant to assess these sites. The contractor shall remediate, including appropriate disposal of contaminated material to the satisfaction of the CA.

#### **GR130.8 DESIGNATED AREAS AND ACCESS**

- .1 The Contractor shall construct and maintain Designated Areas for their intended purpose and in a manner which provides for inspection including the regular clearance of snow.
- .2 The Designated Areas shall be contained within the Site unless otherwise authorized by the Contract Administrator.
- .3 The topsoil in Designated Areas shall be stripped and stockpiled for later reuse in site restoration. Granular material shall be placed to ensure all weather accessibility.

- .4 Locations within Designated Areas where equipment, hazardous material and/or wastes will be stored or maintained shall be underlain with at least 30 cm of impermeable soil or approved equal and lined with an impermeable groundsheet to contain spills and minimize cleanup costs. Hazardous materials must also comply with the additional requirements outlined in GR 130.9.2.4.4.
- .5 Designated Areas shall be located a minimum of 100 metres from any waterbody.
- .6 Access to Designated Areas from a public roadway shall be such that it is not a safety hazard to the employees or the general public.
- .7 The Contractor shall restore the Designated Areas and access roads not required for on-going maintenance to their original condition.
- .8 The Contractor shall ensure access to Designated Areas is restricted to prevent access of unauthorized personnel.

## **GR130.9 MATERIALS HANDLING, STORAGE AND DISPOSAL**

### **GR130.9.1 General**

- .1 All construction areas shall be kept clean and orderly at all times during and at completion of construction.
- .2 The Contractor shall take all reasonable measures to prevent compounds harmful to human health or the environment from being released.
- .3 All unused, partially used and waste material shall be removed and properly disposed of prior to the end of the Contract.
- .4 Materials required for spill containment and clean up shall be available at all locations where construction related activities occur.

### **GR130.9.2 Handling and Storage of Wastes**

#### **GR130.9.2.1 Domestic Solid, Demolition and Construction Waste**

- .1 Waste material shall be recycled to the degree that is economically and practically feasible.
- .2 There shall be no dumping of waste on or off the construction site.
- .3 Different waste streams shall not be mixed.
- .4 Waste shall be stored in Designated Areas for each worksite and camp as approved by the Contract Administrator. At no time during construction shall domestic solid, demolition, or construction waste be permitted to accumulate at any other location on the work site.
- .5 All waste materials shall be collected and contained in marked containers appropriate to the waste classification until removed from the site for recycling or disposal as approved by the Contract Administrator.

- .6 All solid waste generated at the camp must be disposed of at a registered waste disposal ground or recycling facility. On-site burning or burial is not permitted.

**GR130.9.2.3 Domestic Sewage and Grey Water**

- .1 All sewage and grey water shall be collected through the provision of a wastewater management system in compliance with the *Manitoba Regulation No. 83/2003* respecting *Onsite Wastewater Management Systems* or any future amendments thereof.
- .2 All collected sewage shall be removed from the site at least once every seven (7) days, where transportation permits, by a registered sewage hauler and disposed of at a Designated licensed wastewater treatment facility.

**GR130.9.2.4 Dangerous Goods/Hazardous Waste Handling and Disposal**

- .1 Dangerous goods/hazardous wastes shall be identified and shall be handled in accordance with *The Dangerous Goods Handling and Transportation Act* and Regulations, WHMIS and any other applicable regulation.
- .2 All dangerous goods/hazardous waste storage areas shall have the top soil stripped and lined with at least 30 cm of impermeable material and an impermeable ground sheet in a manner as to minimize the spread of any leak or spill. Top soil shall be stored and used in the restoration of the area.
- .3 All dangerous goods/hazardous wastes shall be stored with a storage vessel or constructed dyking system designed to contain 110% of the total volume. Where dyke shall be used it shall be designed and maintained in such a manner so as to capture spills. Accumulated fluid in the dyke is to be disposed of as hazardous waste unless test results from an approved accredited lab demonstrate otherwise.
- .4 A WHMIS file shall be maintained on-site for all hazardous materials at the work area. Prior to commencement of the Work Material Safety Data Sheets (MSDS) shall be submitted to the Contract Administrator for all hazardous materials to be used on-site. No material shall be brought to the site without prior submission of a MSDS.
- .5 The Contractor shall have staff trained and certified in the handling of dangerous goods present on-site whenever dangerous goods are being transported, stored or utilized for the performance of the work. All staff responsible for the handling of dangerous goods and hazardous wastes must also be trained in emergency spill response and containment.
- .6 All dangerous goods/hazardous waste shall be confined to Designated Areas and stored in a secure manner to prevent access by unauthorized personnel.
- .7 Disposal of hazardous waste shall only be at hazardous waste facilities licensed under *The Dangerous Goods Handling and Transportation Act*.
- .8 All hazardous waste stored at Designated Areas shall be removed from the site at least once every seven (7) days or as approved by the Contract Administrator. Should access to the site pose an issue, all hazardous waste shall be stored in an approved storage vessel until transportation of waste can be accomplished.
- .9 All used oil shall be stored in leak-proof drums with tight fitting lids or tanks until removed to a registered waste oil facility or hazardous waste disposal facility. Outdoor storage of

used oil in drums must be stored in such a manner so as to provide for secondary containment, prevent corrosion and damage from collision and prevent a spill to the environment.

- .10 Used oil filters shall be drained, placed into suitable storage containers and disposed of at approved facilities. The oil drained out of the used filters shall be collected and handled in the same manner as used oil.
- .11 A pesticide use permit shall be obtained prior to the application of pesticides. The Contractor shall ensure that all pesticides are applied by a licensed commercial applicator and adhere to all conditions specified in *Manitoba Regulation 94/88* respecting *Pesticides* or future amendments thereof and associated permits. The Contractor is to submit a completed post seasonal form to the Contract Administrator at Substantial Performance and at the end of each calendar year, confirming that the terms and conditions of the permit have been satisfied.

#### **GR130.9.2.5 Petroleum Handling and Storage**

- .1 Fuel tanks are not to be used without a proper authorization and documentation of such (Permit, etc.)
- .2 All petroleum handling, and storage shall comply with *Manitoba Regulation 188/2001* respecting *Storage and Handling of Petroleum Products and Allied Products* or future amendments thereof, the Manitoba Fire Code and all other applicable requirements.
- .3 Petroleum products shall be transported in accordance with the Manitoba Provincial *Dangerous Goods Handling and Transportation Act*.
- .4 Fuelling of storage tanks and mobile equipment is to take place within Designated Area(s) for fuel storage and fuelling.
- .5 In the event that a piece of equipment must be fuelled or maintained outside a Designated Area, the fuel shall be transported in approved containers.
- .6 All fueling activities shall use spill trays and/or polyethylene (HDPE) groundsheets to contain the fuel and prevent fuel from being spilled onto the ground surface. Fuelling areas should be kept clean and free of snow and other materials so as to allow clear access and routine inspection and leak detection.
- .7 Tank vehicles used to deliver fuel to the worksite and/or to refuel around the worksite shall meet the requirements for highway tanks for the shipment of dangerous goods by road set out in CSA Preliminary Standard B620-98, *Highway Tanks and Portable Tanks for the Transportation of Dangerous Goods* or any future amendment thereof.
- .8 Equipment shall not be refueled from fuel dispensed from a watercraft.
- .9 Petroleum storage shall be a minimum of 3 metres from property lines or buildings, 15 metres horizontally from hydroelectric poles and lines, 1 metre from other storage tanks and 100 metres from any watercourse.
- .10 Petroleum storage tanks shall be grounded and the dispensing tank shall be attached with a bonding cable to an appropriate location on the receiving tank prior to commencement of fueling.



- .11 Petroleum products shall be labeled as to their contents and stored and handled within Designated Areas which clearly identify the materials present.
- .12 Access to the Designated Area(s) for petroleum storage areas shall be restricted to authorized personnel.
- .13 Storage tanks shall be secured.
- .14 Signs shall be posted in Designated Area(s) for fuel storage and refueling including:
  - .1 Materials identification and hazard placards;
  - .2 Storage tank permit(s);
  - .3 Spill response procedures including contact list in the event of a spill;
  - .4 Clean up procedures;
  - .5 Fuelling procedures; and
  - .6 Access restrictions.
- .15 Personnel involved in the handling and storage of fuels shall have WHMIS and spill response training.
- .16 Combustible engines shall be shutdown during fueling.
- .17 No smoking and no open flames are permitted at storage tanks or the Designated Area for fuel storage and refueling at any time.
- .18 Only above ground storage tanks shall be used for the storage of bulk petroleum products. All storage tanks over 230 litres must be double-walled tanks meeting the standard defined under the *Canadian Council of Ministers of the Environment Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*. All storage tanks over 5000 litres require a permit and must meet the requirements under the *Manitoba Regulation 188/2001 respecting Storage and Handling of Petroleum Products and Allied Products* or any future amendments thereof,
- .19 Storage tanks shall be equipped with overfill protection and spill containment at the transfer area(s) in the system design approved by the Contract Administrator.
- .20 Product inventory shall be taken weekly by the owner/operator of all above-ground storage tanks greater than 5000 litres and retained for inspection upon request.
- .21 Barriers shall be installed to encircle petroleum storage tanks to prevent collisions with vehicles and heavy equipment. The mass, height and setback of the barricades are to be determined by the size of equipment on site and shall be operable under conditions of snow accumulation.
- .22 All petroleum storage containers and tank vehicles shall be inspected daily for leaks and spillage. Damaged or leaking fuel storage containers shall be promptly removed from the Site.

- .23 Secondary containment shall be incorporated at locations where stationary equipment is used.
- .24 Fuel barrels shall be transported in accordance with the *Dangerous Goods Handling and Transportation Act* and be securely fastened to vehicles during transport.
- .25 Fuel transfers must be monitored.
- .26 All vehicles hauling fuel shall carry materials and equipment for emergency spill response.
- .27 All petroleum product storage sites and mobile transportation units shall, at all times, be equipped with appropriate categories of equipment and volumes of fire suppression products.

#### **GR130.10 SPILLS AND REMEDIATION AND EMERGENCY RESPONSE**

- .1 All spills or accidental releases of petroleum products or other hazardous substances to a watercourse, to federal lands, and/or as specified by the *Manitoba Regulation 439/87* respecting *Environmental Accident Reporting* or future amendments thereof shall be immediately reported to Manitoba Conservation and the Contract Administrator.

It is the responsibility of the Contractor to conduct appropriate soil testing on Designated Area(s) and contract work sites prior to the mobilization of equipment to site to establish baseline conditions. The Contractor will be held responsible for any contamination unless evidence to the contrary can be provided by the Contractor.

- .2 All environmental emergencies shall be reported to the Contract Administrator within 24 hours whether it was necessary to report the spill to Manitoba Conservation or not. The report shall include the following:
  - .1 Location of spill or release (GPS coordinates);
  - .2 Personnel responding;
  - .3 Materials spilled;
  - .4 Cause of spill;
  - .5 Estimated quantity of released material;
  - .6 Estimated area and volume of soil affected;
  - .7 Cleanup action undertaken; and
  - .8 Means used to contain, transport and dispose of the materials involved.
- .3 The Contractor shall designate a qualified on-site emergency response coordinator(s) who shall be on site at all times that work is being undertaken. The emergency response coordinator(s) shall have the authority to redirect manpower and equipment in order to respond in the event of a spill, release or other environmental emergency.
- .4 All spills or releases of petroleum and other products shall be contained, treated and disposed of in accordance with the *Manitoba Regulation 188/2001* respecting the *Storage*

*and Handling of Petroleum Products and Allied Products Regulation* or any future amendment thereof and any other applicable requirement.

- .5 An updated environmental emergency plan for each dangerous good/hazardous waste shall be maintained in the work area at all times. The environmental emergency plan must include:
  - .1 The identification of any environmental emergency that can reasonably be expected to occur and that would likely cause harm to the environment or constitute a danger to human life or health and identification of the harm or danger;
  - .2 a description of the measures to be used to prevent, prepare for, respond to and recover from any environmental emergency identified above;
  - .3 a list of individuals who are to carry into effect the plan in the event of an environmental emergency and a description of their roles and responsibilities;
  - .4 the identification of the training received for each of these individuals;
  - .5 a list of the emergency response equipment and the equipment's location; and
  - .6 the measures to be taken to notify members of the public who may be adversely affected by an environmental emergency.
- .6 The Contractor is responsible for restoring site, including soil and water remediation resulting from the activities of the Contractor, any Subcontractors and agents of the Contractor.
- .7 As the Designated Areas are scheduled for decommissioning, the Contract Administrator will coordinate an environmental site assessment(s) of the Designated Areas by ESRA or its Agent. The Contractor will provide notice to the Contract Administrator at least 30 days prior to completion of work and/or Designated Area(s) decommissioning.
- .8 Where spill events occur, the Contract Administrator will coordinate an environmental site assessment(s) by ESRA or its Agent.
- .9 The Contract Administrator and the ESRA will coordinate the submission of a Remedial Action Plan (RAP) to Manitoba Conservation for approval, if necessary. The Contractor shall remediate contaminated sites as per the criteria identified in the approved RAP and to the satisfaction of the Contract Administrator.
- .10 The Contractor may, at their expense, engage a member of the Association of Professional Engineers and Geoscientists of the Province of Manitoba to draft and submit a RAP to Manitoba Conservation for approval. The Contractor must provide copies of the RAP draft(s) and approval(s) to ESRA prior to the start of remediation.
- .11 Where multiple Contractors are using a Designated Area the Contract Administrator shall ensure an agreement is reached between Contractors to deal with overlap of responsibility for site restoration and remediation.
- .12 The Contractor shall provide a work plan and schedule to the Contract Administrator regarding remediation activities within 10 business days following receipt of approved RAP and at minimum 5 business days prior to the anticipated start of remedial works. Remedial works shall only begin in the presence of ESRA or their designated agent.

- .13 The Contractor shall provide the equipment and personnel required to conduct the remediation in a timely manner and shall work cooperatively with ESRA and their designated agent to address site contamination.
- .14 The Contractor shall dispose of all contaminated materials at a licensed treatment facility unless otherwise provided for in the RAP. Contaminated runoff or water shall be collected and contained. The collected runoff shall be disposed of as identified in the RAP.
- .15 Waybills for disposal shall be provided by the Contractor to the Contract Administrator in all instances. The Contract Administrator may, prior to issuing Substantial Performance to the Contractor, require a hold-back, which will be released to the Contractor following submission of all waybills.

#### **GR130.11 DUST AND PARTICULATE CONTROL**

- .1 All work shall be conducted by methods that minimize the raising of dust from construction operations.
- .2 Water or approved dust suppressants only shall be used for dust control when necessary. The use of waste petroleum or petroleum by-products is not allowed.
- .3 All vehicles used to haul materials to or from the work site shall have the load covered with a tarpaulin during transport.
- .4 All stock piles or spoil piles shall be maintained as to minimize wind erosion.

#### **GR130.12 NOISE AND NOISE LIMITATIONS**

- .1 All equipment supplied by the Contractor shall be effectively sound-reduced by means of silencers, mufflers, acoustic linings, acoustic shields or acoustic sheds.
- .2 The Contractor shall comply with the noise By-laws of the adjacent First Nations and/or municipal authorities.
- .3 Any operation of equipment outside the hours as regulated by the adjacent First Nations and/or municipal authorities shall require an exemption in writing. The Contractor shall provide a copy of such an exemption to the Contract Administrator.
- .4 The Contract Administrator may impose requirements on the Contractor to minimize noise nuisance at their discretion.

#### **GR130.13 PLANNED AND UNPLANNED SHUTDOWNS**

- .1 The Contractor shall ensure all equipment, supplies, and any other items used during construction are relocated to Designated Areas for laydown and staging or taken off site prior to any shutdown period.
- .2 All dangerous goods/hazardous waste shall be removed from the Site, including from the Designated Areas for waste and/or fuel storage, for any shutdown period where transportation permits and/or at the discretion of the Contract Administrator. In all instances dangerous goods/hazardous waste shall be securely stored and inspected regularly during the shutdown.

- .3 Waste products shall be removed from the construction site during a shutdown period, including from the Designated Areas where transportation permits and/or at the discretion of the Contract Administrator. The demolition and construction waste products, such as gravel and waste concrete, may be left on-site as long as they are stored in a secure Designated Area for waste.
- .4 The Contractor shall submit a plan to the Contract Administrator for removal and/or securing of equipment, supplies and waste materials in the event of an unplanned shutdown.

#### **GR130.14 STAFF TRAINING AND AWARENESS**

- .1 The Contractor shall provide mandatory training and awareness sessions prior to the start of construction and to new personnel to ensure all personnel working on the Contract are aware of and understand the environmental provisions of the Contract documents including relevant drawings, specifications and Contractor submittals and updates. Such orientation and participants shall be documented.
- .2 The Contractor shall submit the planned frequency and records of these meetings. The Contractor shall maintain access to all environmental provisions of the Contract documents including relevant drawings, specifications and Contractor submittals and updates, in a location and manner accessible to all employees, subcontractors, and agents,

#### **GR130.15 WORKING WITHIN OR NEAR WATER**

##### **GR130.15.1 General**

- .1 Material, cleared vegetation, stockpiles and/or waste shall not be deposited or stored within 100 metres of a watercourse, unless approved by the Contract Administrator, No borrow shall be removed from within 100 meters of a water body.
- .2 Construction activities shall not occur within 100 meters of a watercourse with the exception of construction of a watercourse crossing.
- .3 Where a 100 meter distance is not possible, a buffer zone of undisturbed vegetation between the construction activities and the watercourse shall be established. The buffer zone width shall be established according to the following formula:  $Width = 10 \text{ meter} + 1.5(\text{slope gradient})$  or 30 meters whichever is greater.
- .4 Backfill installed adjacent to a fish bearing water body shall consist of clean and well graded granular material that is free of fines. Rip-Rap and other rock or granular materials to be used in or adjacent to a fish bearing water body shall be free of fines.
- .5 Vehicles and other equipment shall be kept away from and out of the water unless otherwise approved by the Contract Administrator. Equipment shall not be washed within 100 meters of a watercourse. Where the Contractor will be using equipment or supplies in water, and where there is risk of importing invasive species, the Contractor shall clean the equipment and supplies in accordance with Manitoba Conservation's *Protocol for Cleaning Equipment*.
- .6 Whenever it is necessary to remove existing beaver dams, the Contractor shall adhere to the GR130.15.10. Work plans for beaver dam removal shall be provided to the Contract

- Administrator 10 business days prior to the start of dam removal for application of a beaver dam removal permit from Manitoba Conservation.
- .7 Effective erosion and sediment control measures shall be implemented where and when necessary to prevent sediment from entering any watercourse and in accordance with GR130.16.
  - .8 The Contract Administrator and/or an ESRA Environment Officer shall inspect the site prior to the commencement of in-water construction activities.
  - .9 Deleterious substances shall be prevented from entering any watercourse or any of their contributory channels.
  - .10 A silt curtain should be placed downstream of in water work.

#### **GR130.15.2 Timing of Work**

- .1 The Contractor shall schedule, plan, and carry out works such that in-water work is kept to a minimum. When practical, in-water work shall be staged to occur as a single event.
- .2 In-water work shall be restricted to low flow periods and shall be scheduled during a period when the watercourse is seasonally dry or frozen to the bottom whenever possible.
- .3 The Contractor shall not undertake construction activities in watercourses during periods of high stream flow.
- .4 South of Leaf River, the Contractor shall not undertake construction activities in fish bearing waters or potentially fish bearing waters between April 1 and June 30, during periods of high stream flow or identified spawning periods. In waters that have fall spawning fish, the Contractor shall not undertake construction activities between September 15 to April 30, unless otherwise authorized by the Fisheries and Oceans Canada and Manitoba Conservation.
- .5 North of Leaf River, the Contractor shall not undertake construction activities in fish bearing waters or potentially fish bearing waters between April 15 and July 15, during periods of high stream flow or identified spawning periods. In-waters that have fall spawning fish, the Contractor shall not undertake construction activities between September 1 to May 15, unless otherwise authorized by the Fisheries and Oceans Canada and Manitoba Conservation.

#### **GR130.15.3 Disturbance to Stream Bed and Stream Banks**

- .1 Machinery access for in-water work shall be limited to a single point on the shoreline. The distance between the machinery access point and the worksite shall be minimized. The machinery shall arrive on site in a clean, washed condition, and be free of fluid leaks prior to any in-water work.
- .2 The Contractor shall use an in-water pad built of washed gravel where in-water equipment activity may generate excess sediment.
- .3 The Contractor shall minimize the disturbance to stream bed and banks. The bed and banks of the watercourse shall be restored to preexisting conditions following a disturbance.

- .4 The Contractor shall use existing trails, roads or cut lines to access the site where possible to avoid disturbance to riparian vegetation.
- .5 Debris and other objects shall be lifted out of the water whenever possible. Items shall not be dragged across the stream bed/lake bottom and banks/shoreline.

#### **GR130.15.4 AUTHORISATIONS AND APPROVALS**

- .1 Construction within 30 meters of a waterway requires authorization by Manitoba Conservation except construction of watercourse crossing approaches.
- .2 Fisheries and Oceans Canada Authorization(s) may be required prior to the commencement of any in-water or near water work. ESRA shall obtain these permits as required. The Contractor is required to provide ESRA with all project specific information required for these submissions a minimum 90 calendar days prior to the undertaking of in-water and/or near water works, with the understanding that Fisheries and Oceans Canada may request additional information. ESRA shall not be responsible for delays associated with Fisheries and Oceans Canada Authorization(s). All conditions specified in Fisheries and Oceans Canada Authorizations, Letters of Advice and/or other Fisheries and Oceans Canada directives apply to the work.
- .3 Transport Canada (TC) Navigation Protection Approval(s) may be required for the construction of permanent, temporary or other watercourse crossings and/or in water structures. ESRA shall obtain these permits as required. The Contractor is required to provide ESRA with all project specific information required for these submissions a minimum 90 calendar days prior to the need to undertake the works with the understanding that TC may request additional information. ESRA shall not be responsible for delays associated with TC Navigation Protection Approval(s). All conditions specified in TC Navigation Protection Approval(s) and other directives apply to the work.
- .4 For all temporary work and construction activities required for in-water works ESRA will apply for required authorizations, permits, and approvals. Contractors must supply detailed schedules and work plans to facilitate these applications and cooperate with additional information requests from regulatory bodies. It may take up to 90 or more business days to process applicable authorizations, permits required. The contractor is bound by all conditions specified in regulatory directives applicable to the work. ESRA shall not be held responsible for any delays related to approvals.

#### **GR130.15.5 Stream Crossings**

- .1 Where possible existing stream crossings shall be utilized to traverse watercourses. The number of temporary stream crossings shall be minimized.
- .2 All stream crossings shall be constructed in accordance with *The Manitoba Stream Crossing Guidelines for the Protection of Fish Habitat – May 1996*. They must be designed for their intended construction loading and to accommodate intended water flows.
- .3 Streams shall be crossed at right angles at a narrow channel section where the width is no greater than five meters, measured from high water mark to high water mark. Meander bends, braided streams, alluvial fans and other unstable areas shall be avoided.
- .4 The natural alignment of the stream shall be maintained.

- .5 Dredging, infilling, grading or excavating of the channel bed or banks of fish bearing waterways will require DFO authorizations.
- .6 If there is no existing crossing and the watercourse must be crossed, the contractor must either:
  - .1 Construct a temporary crossing or ice bridge. Ice bridges constructed solely of clean water do not require Fisheries and Oceans Canada Authorization provided they do not obstruct fish passage during timing windows. Ice bridges constructed otherwise require Fisheries and Oceans Canada Authorization; or
  - .2 Ford the watercourse. For one-time crossing (over and back) of watercourses where the width is no greater than five meters, measured from high water mark to high water mark. For larger watercourses or crossings that require multiple fordings, Fisheries and Oceans Canada Authorization shall be obtained.
- .7 Fording activities may require water quality monitoring as per GR130.15.8.
- .8 Temporary stream crossings shall be removed as soon as possible following completion of the construction activities or when it is no longer required, whichever is sooner.

#### **GR130.15.6 Base Flow, Diversions and Fish Passage**

- .1 The Contractor is responsible for maintaining base flows for the duration of construction activities in watercourses requiring in-water and near water work, including those works which may require the installation of cofferdams and related structures, unless otherwise approved.
- .2 Temporary stream diversions may be used wherever a watercourse must be completely blocked to allow work in the dry.
- .3 Temporary stream diversions shall be constructed under low flow conditions. The Contractor must ensure the diversion structure design accommodates any expected high flows during the construction period. Materials used shall not be taken from below the high water mark.
- .4 Diversion channels shall be constructed in the dry by excavating from downstream to upstream and removing the ends of the channel last. Diversion channels shall have gentle curves and similar gradient to the natural watercourse.
- .5 In-water diversion structure channels shall be constructed using erosion resistant materials.
- .6 Existing watercourses shall not be disturbed until temporary diversion channels have been constructed.
- .7 Gradient controls shall be used to ensure that diversion channel slopes correspond to the existing channel gradients.
- .8 Erosion control measures shall be installed to protect any unstable channel beds and banks in accordance with GR130.16 of this specification.
- .9 The diversion channel shall be routinely inspected to identify areas of incipient erosion. Eroded areas shall be repaired immediately.



- .10 A pumped diversion may be used to maintain flows downstream in non-fish bearing watercourses.
- .11 For pumped diversions of fish bearing watercourses all water intakes shall be sized and screened to prevent blockage and/or fish mortality in accordance with Fisheries and Oceans Canada's *Freshwater Intake End-of-Pipe Fish Screen Guideline*.
  - .1 The pumping system shall be sized to accommodate expected watercourse flow from storm events.
  - .2 Pumps shall be discharged onto geofabric, gravel, straw bales or an alternate approved by the Contract Administrator to dissipate the energy of discharge.
- .12 Temporary stream diversions shall be designed to provide fish passage, even during low flow conditions. The diversion shall be removed during fish migration periods where elevated pipes are used.
- .13 At least one-third of the width of any fish bearing watercourse shall be left open to permit the safe and unimpeded passage of fish. If width is to be constricted by more than two thirds Fisheries and Oceans Canada Authorization is required. Authorizations shall be sought in accordance with GR130.15.4
- .14 The original flows through the site shall be restored as soon as work is completed.

#### **GR130.15.7 Fish Salvage**

- .1 The Contractor cannot initiate any work where fish salvage may be required without a live fish handling permit and the direct oversight of a qualified Fish Biologist.
- .2 Fish salvage shall be conducted prior to the commencement of in-water construction activities and/or prior to dewatering of an isolated work area.
- .3 Where fish salvage is being coordinated by others, the Contractor must cooperate and coordinate with the Contract Administrator, ESRA and its agents.
- .4 The Fish and Water Quality Protection Plan shall be developed by the Contractor so as to minimize the onsite requirement for a fish biologist to the greatest extent practical. Any alterations to the submitted Fish and Water Quality Protection Plan shall be submitted 15 days in advance of the start of work.
- .5 The Contractor must advise the Contract Administrator 15 business days in advance of in-water works where fish salvage is required. The Contractor shall reconfirm the schedule 5 business days and 48 hours in advance of the start of work. Any alteration to the schedule after the 5 business days which results in direct or indirect costs to the Contractor Administrator, ESRA or its agent shall be at the Contractor's expense.
- .6 Fish salvage shall be conducted immediately after an area within a watercourse has been isolated. Partial dewatering is permissible to decrease wetted area and increase efficiency of capture, however, the fish salvage shall be completed prior to dewatering the entire area.
- .7 The Contractor must provide access and facilitate fish salvage activities including removal of ice within the isolated area and any other works as necessary at no additional cost.

- .8 Isolation structures shall be monitored by the Contractor once the fish salvage is completed to ensure that they remain barriers to fish passage and do not allow fish to enter the isolated area. In the event that the isolation is breached or expanded in a manner that may allow fish to enter the isolated area, fish salvage by ESRA or its agent will be required. The salvage shall be conducted at the Contractor's expense.

#### **GR130.15.8 Water Quality Monitoring**

- .1 Water quality monitoring shall be required for in-water work in fish-bearing watercourses and may be required when working near fish-bearing watercourses or tributaries to fish bearing watercourses to demonstrate that deleterious substances are not entering into the watercourse. Water quality monitoring shall also occur when working upstream and within 5km of a water treatment plant intake.
- .2 A Fish and Water Quality Protection Plan shall prepared by the Contractor in advance of construction works and any amendments must be submitted 15 days in advance of the start of work requiring or may requiring water quality monitoring. The Plan shall include a description of the works and measures proposed to mitigate adverse changes to water quality.
- .3 Where water quality monitoring is being coordinated by others, the Contractor must cooperate and coordinate with Contract Administrator, ESRA and its agents. All water quality monitoring activities must be conducted or overseen by a qualified Fish Biologist. No works requiring monitoring shall be undertaken without a qualified Fish Biologist representative.
- .4 The Contractor must advise the Contract Administrator 15 business days of work where water quality monitoring is or may be required. The monitoring shall be conducted prior, during and after construction activities. The Contractor shall reconfirm the schedule 5 business days and 48 hours in advance of the start of work. Any alteration to the schedule which results in direct or indirect costs to the Contract Administrator, ESRA or its agent shall be at the Contractor's expense.
- .5 Where monitoring results demonstrate changes above *Manitoba Water Quality Standards, Objectives and Guidelines (MWQSOGs)*, the activity shall cease until effective mitigative measures are taken. Where an isolated work area is being dewatered and discharge exceeds guidelines, mitigation measures may include diverting waters to splash pads or settling ponds prior water re-entering a watercourse or diverting to the top of bank where the water will not run back into the watercourse.

#### **GR130.15.9 Culvert Maintenance and Replacement**

- .1 Construction and maintenance activities, including material and debris removal, shall be timed to prevent disruption to sensitive fish life stages on fish bearing waterways by adhering to the timing windows outlined in GR130.15.2 where accumulated material is preventing the passage of water and/or fish through the structure.
- .2 Emergency debris removal(s) may be carried out at any time of year.
- .3 The Contractor shall limit the removal of accumulated material to the area within the culvert, immediately upstream of the culvert and to that which is necessary to maintain culvert function and fish passage.

- .4 Erosion controls shall be installed as soon as possible in accordance with GR130.16 of this specification.
- .5 Accumulated material and debris shall be removed slowly to allow clean water to pass, to prevent downstream flooding and reduce the amount of sediment-laden water going downstream.
- .6 Installation or replacement of culverts shall occur in isolated and dewatered worksites. Diversion structures shall be installed in accordance with GR130.15.6 of this specification.
- .7 Culverts in fish bearing waters shall adhere to the following design criteria to ensure that fish passage is maintained:
  - .1 For culverts less than 25 meters long the flow velocity through the crossing shall not exceed 1 metre/second;
  - .2 For culverts greater than 25 meters long the flow velocity through the crossing shall not exceed 0.8 metre/second;
  - .3 The crossing shall not be impassable to fish for longer than 3 consecutive days once in 10 years or 7 consecutive days once in 50 years; and
  - .4 The culvert shall be designed such that fish passage is possible even in low flows.
- .8 A minimum spacing of 2 meters between adjacent culverts is required if more than one culvert is to be installed at a crossing location. There shall be no more than three culverts at one crossing.
- .9 The Contractor shall maintain a culvert gradient as close to the natural stream grade as possible.
- .10 The Contractor shall install culverts a minimum of 30 centimeters or 10% of culvert diameter (whichever is greater) below the normal stream bed.
- .11 The Contractor shall avoid using frozen backfill. Backfill shall be compacted to avoid settling, hydrostatic uplifting or side movements of the culvert that may lead to blockage of fish passage or washouts.
- .12 Slopes shall be contoured to an appropriate steepness to minimize erosion.
- .13 Soils shall be graded in the direction away from the watercourse and never into the stream.
- .14 Metal culverts are not to remain on site and should be disposed at an appropriate disposal or recycling facility.

#### **GR130.15.10 Beaver Dam Removal**

- .1 Beaver Dams to be removed shall be identified in consultation with and as approved by the Contract Administrator. Beaver dams may not be removed without first obtaining authorization from Manitoba Conservation.
- .2 Removal of the dam shall not adversely affect a fishery, or recreational property uses that

depend on the dam's existence, both upstream and downstream.

- .3 Removal activities shall be restricted to removal or breaching of the dam itself and shall not involve channel or shoreline modification downstream of the dam.
- .4 Beaver dam removal is not to be conducted in the winter as this may result in loss of fish habitat.
- .5 Whenever possible remove beaver dams by hand.
- .6 Remove the dam gradually to allow a slow release of water to prevent sediment release and potential flooding downstream.
- .7 if explosives are to be used in dam removal, individual detonations shall not exceed one kilogram of explosives, diesel fuel and fertilizer are not to be used as explosives.
- .8 Removals are not to be completed on beaver dams directly connected to a culvert or bridge.

#### **GR130.15.11 Blasting Near a Watercourse**

- .1 The Contractor may be requested by the Contract Administrator to modify the timing of blasts to respect key life cycle events to critical life functions of fish and wildlife.
- .2 Blasting near watercourses classified as fish habitat shall adhere to set back and weight of explosive charge guidelines as referenced in Fisheries and Oceans Canada document *Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters 1998*. Where these guidelines cannot be met, blasting plans shall be submitted to the Contract Administrator for ESRA's application to Fisheries and Oceans Canada to obtain necessary approvals prior to commencement of blasting in areas that could affect fish habitat.

#### **GR130.16 EROSION AND SEDIMENT CONTROL**

- .1 Erosion and sediment control measures shall be installed in accordance with the Contract specifications and as directed by the Contract Administrator.
- .2 Erosion and sediment control for work near water must be installed prior to any disturbance and maintained throughout the contract.
- .3 Erosion and sediment control for road works must be installed and maintained progressively as directed by the Contract Administrator.
- .4 Prior to construction, all vegetated areas that are to be preserved or untouched shall be well marked. Vegetation cover shall be maintained to the greatest extent possible adjacent to watercourses.
- .5 Vegetation cover shall be preserved for as long as possible by staging construction. Vegetation within 30 m of a watercourse shall be cleared by hand.
- .6 Operations shall be halted during heavy rain events.
- .7 Erosion and sediment control measures shall be installed before starting work within 100m of a waterway. Erosion and sediment control measures are to be inspected weekly

- and after every major rain or melt event for proper functioning; necessary repairs shall be made immediately.
- .8 Turbidity curtains shall encircle in-water works and be installed in such a manner so as to prevent sediment from escaping the isolated area.
  - .9 Slash and debris from clearing operations shall be retained and used to temporarily protect erosion-prone slopes.
  - .10 Stream banks and bed at culvert openings shall be protected with erosion-resistant materials such as riprap.
  - .11 The Contractor shall ensure that the point of discharge from seepage, runoff water or pumped water from any excavation is a minimum of 30 meters from any watercourse.
  - .12 All disturbed areas including shorelines shall be restored to their original condition as soon as practicable following completion of construction activities. The restoration may include but is not limited to, infilling of any temporary diversion channels; removal of construction materials and debris; installation, maintenance, and removal of sediment and erosion control measures and re-vegetation of disturbed areas.
  - .13 When re-vegetation by seeding, the Contractor shall use an approved seed mix in accordance with the Contract. Where there is sufficient time in the growing season seeding will commence immediately upon completion of trimming operations. Seed mixtures will be selected based on specific soil conditions and location.
  - .14 Pesticides shall be applied by hand within 30 m of all waterbodies.
  - .15 Sediment and erosion control measures shall remain in place and be maintained until the vegetation has become established.

## **GR130.17 CLEARING AND GRUBBING**

### **GR130.17.1 General**

- .1 Clearing and grubbing shall be limited to the Site and associated access routes.
- .2 Clearing and grubbing shall not occur between April 1 and September 1 of any year to minimize disturbances to wildlife and habitat.
- .3 Prior to clearing or grubbing work areas shall be clearly marked and approved by the Contract Administrator.
- .4 A vegetation buffer shall be maintained between the ROW and any development including, but not limited to, borrow areas, quarries, laydown areas, personal property, utility poles and camps as outlined in the *Forest Management Guidelines for Terrestrial Buffers*.
- .5 A vegetation buffer shall be maintained between the ROW and sensitive features including, but not limited to, sticknests, mineral licks, dens, heritage sites as outlined in the *Forest Management Guidelines for Terrestrial Buffers*.

### **GR130.17.2 Clearing**

- .1 Clearing in known permafrost areas will be minimized where possible. Where clearing cannot be avoided the Contractor shall retain the top layer of organic soil, ground vegetation and an insulating cover.
- .2 Areas for selective clearing (i.e. sensitive) must be accurately flagged as approved by Contract Administrator prior to clearing. Appropriate mitigation measures must be identified and applied. Any new sensitive areas found during clearing must be reported to the Contract Administrator and are not to be cleared.
- .3 Trees shall be felled towards the centre of the ROW and woody debris shall not fall or be pushed into standing timber. Any debris or trees that fall outside of the ROW shall be moved back into the ROW.
- .4 Clearing activities shall be limited to removing vegetation to ground level without disturbing root mass. Height of stumps shall not exceed 30 centimetres.
- .5 Clearing within 30m of a watercourse shall be by hand.

### **GR130.17.3 Grubbing**

- .1 Grubbing activities shall end 2 meters from any standing timber to avoid disturbing the root systems of nearby standing trees and reduce blow down.
- .2 The Contractor will take steps to avoid damage to property when grubbing. The Contractor is responsible for any damages and will be required to fix any damage to property to its original condition.
- .3 Grubbing will not change access to the existing trails, trap lines, portages and other travel corridors.

### **GR130.17.4 Disposal and Storage**

- .1 Merchantable wood identified by the Contract Administrator shall be stockpiled outside and immediately adjacent to the clearing limits. Stockpile sites shall be located within existing clearings or areas of non-merchantable timber. Unless otherwise specified, all stockpiled material shall be removed from Crown Land by April 30 of any given year.
- .2 Disposal of cleared trees and brush must be done as directed or approved by the Contract Administrator. Disposal may involve burning, compacting, piling, burying, windrowing and compacting, limbing and chipping.
  - .1 Windrows have to be compacted as close to the ground as possible with a maximum height of 0.6 metre.
  - .2 If burying is selected as a means of disposing woody debris, the area shall be capped with ½ metre of clay, followed by the stockpiled topsoil, and revegetated.
  - .3 Wood and brush piled for burning must be located at least 15 meters from other wood and brush piles and standing timber prior to burning. If piles are windrowed for burning a 15 meter break should occur for every 100 meters in length. Trees and brush shall be piled in a way that allows for clean and complete burning of all

material. Avoid mixing soil into the slash. See GR130.20 for additional burning restrictions.

- .4 For exploratory clearing burning must occur in the centre of the right of way or push outs, whichever is furthest from standing timber.

#### **GR130.18 HERITAGE RESOURCES**

- .1 Areas where heritage or cultural resources of interest are suspected of being present shall be inspected prior to the start of construction.
- .2 Work shall immediately cease where archaeological or historic artifacts are encountered during construction activities. The discovery shall be reported to the Contract Administrator and ESRA.
- .3 Work at the location will be suspended until a Historic Resource Consultant can assess archeological or historic artifacts that are encountered and mitigation measures are confirmed with the Manitoba Historic Resources Branch.

#### **GR130.19 WILDLIFE**

- .1 During the term of the Contract, the Contractor, its employees and agents shall not hunt, trap or harass wildlife at or in the vicinity of the Site.
- .2 The Contractor shall not remove, destroy or disturb endangered species or their habitat as defined under the *Manitoba Endangered Species Act* and/or *Species at Risk Act*.
- .3 Wildlife habitat shall not be destroyed or damaged, except pursuant to a license, permit or other authorization issued for the Project.
- .4 No person shall take, or have possession of, or willfully disturb, destroy the nest or eggs of birds pursuant to the *Migratory Birds Convention Act* and/of the *Manitoba Wildlife Act*.
- .5 No person shall remove, disturb, spring or in any way interfere with any trap set out lawfully by any other person for the purpose of taking furbearing animals.
- .6 The Contract Administrator may restrict construction activities, including blasting, within close proximity to sensitive wildlife or wildlife habitat during critical lifecycle periods.
- .7 Construction camps and worksites shall be kept clean and tidy and free of wildlife attractants. All food and garbage waste shall be stored in bear proof containers away from sleeping quarters and be disposed of at an area which has been designated as an appropriate waste disposal site. Disposal shall occur at regular intervals.
- .8 Employees, workers and other staff shall not feed or harass wildlife that they may encounter. Nuisance wildlife shall be immediately reported to the Natural Resources Officer, Contract Administrator and onsite supervisor.
- .9 Trees containing large nests of sticks and areas where active dens or burrows occur shall be identified, left undisturbed and reported to the Contract Administrator. No construction is to occur within 100m of an eagle's nest, heron rookery or other sensitive wildlife area without prior approval from the Contract Administrator and ESRA.

**GR130.20 WILDFIRES**

- .1 An evacuation and emergency preparedness plan addressing wildfires shall be prepared and submitted to the Contract Administrator prior to the commencement of work.
- .2 No fires shall be started without first taking sufficient precautions to ensure that the fire can be kept under control. The Contract Administrator must be notified prior to any burning.
- .3 Burning will normally occur between November 16<sup>th</sup> and March 31<sup>st</sup>. To the extent possible, burning shall be avoided between April 1<sup>st</sup> and November 15<sup>th</sup> of any given year. In the event that burning is required, an application for a burning permit shall be submitted by MFESRA for approval to Manitoba Conservation.
- .4 All fires shall be monitored by the Contractor for the duration the burning activities. No fire shall be left unattended.
- .5 No activity shall be conducted which may cause a fire to spread. Similarly, burning or smoldering matter shall not be placed where it may cause a fire.
- .6 A primary zone shall be established around camp sites and other longer term temporary structures associated with construction and maintenance activities. Flammable materials such as leaves, brush, dead limbs, and fallen trees shall be cleared from the area regularly.
- .7 Combustible materials shall be stored in a safe manner.
- .8 The locations of construction camps, offices, and related structures shall be chosen in such a fashion as to minimize the risk of exposure to wildfires.
- .9 No burning shall occur on deep organic soils like peat. If a fire occurs in peat soils it must be immediately extinguished.
- .10 Burning near communities or roadways shall occur only when weather conditions allow the safe dispersal of smoke.
- .11 Any wildfire or any fire outside the intended burn area, shall be immediately reported to the Contract Administrator and to Manitoba Conservation at 1-800-782-0076.
- .12 All reasonable attempts shall be made to extinguish wildfires. All available equipment, services and labor shall be made available for the purposes of wildfire protection operations.
- .13 All construction and related activity taking place in the vicinity of a wildfire shall cease until advised by the Contract Administrator that it is safe to resume operations.



#### **GR130.21 CEMENT BATCH PLANT AND CONCRETE WASH OUT AREA**

- .1 It is the Contractor's responsibility to ensure that on-site concrete batch plants have a current *Environment Act* Licence and Crown Lands Work Permit prior to commencing on-site operation.
- .2 The Contractor shall apply for the Crown Lands Work Permit unless otherwise advised by the Contract Administrator, and shall provide to the Contract Administrator prior to the start of work.
- .3 Where ESRA applies for the Crown Lands Work Permit for the batch plant, the Contractor shall provide ESRA a copy of all necessary documentation a minimum 45 days prior to operation to support the work permit application including but not limited to the *Environment Act* Proposal, environmental protection/management plans and Licence.
- .4 The Contractor must obtain all applicable permits for ground or surface water withdrawals and provide to the Contract Administrator prior to the start of operations. Permits are required under the *Water Rights Act* where water removal from a surface water course exceeds 25,000L/day.
- .5 Concrete wash out areas shall be located so as to avoid the removal of standing timber. Concrete wash out areas shall be a minimum 100 m from a water course or other sensitive feature and shall not drain to any water course.
- .6 Decommissioned concrete wash out areas shall be left in such a manner so as to not impede future construction activities or pose a hazard to people or the environment.

#### **GR130.22 MEASUREMENT AND PAYMENT**

- .1 The requirements set out in GR130 are considered incidental to the Work and will not be measured for payment unless indicated otherwise in the Specifications.