

## **1.0 GENERAL**

### **1.1 REGULATORY REQUIREMENTS**

- .1 Comply with the conditions of the permits for the Project obtained by the Minister under the [Fisheries Act ] [and the Water Act] as specified in Section 01410 – Regulatory Requirements.
- .2 Make arrangements with the Minister, landowners, or other agencies that may be affected by disposal of water, snow, or ice. Obtain any permits required in addition to those obtained by the Minister.

### **1.2 SITE CONDITIONS**

- .1 The Site is located in an area where chinook winds, accompanied by sudden temperature changes, are prevalent. The resulting temperature fluctuations often result in significant snowmelt runoff during relatively short periods of time.
- .2 Canal and reservoir operation restrictions that may influence care of water provisions are specified in Section 01110 – Summary of Work.
- .3 Water leakage will occur from other works: [ ].
- .4 The Site is located where groundwater is present. [Special ground water conditions [ ].]

### **1.3 DESIGN OF CARE OF WATER PROVISIONS**

- .1 Design temporary care of water measures including cofferdams, sumps, pumping systems, pipelines, channels, flumes, drains, and other protective and dewatering works to permit construction of the Work in the dry.
- .2 Include provisions for handling groundwater, rainstorm runoff, snow, snowmelt, and ice that may enter the Work areas in the design of the care of water measures.
- .3 Design dewatering systems that are capable of lowering and maintaining the groundwater level a minimum of 1 m below ground surface on the excavation slopes and base to permit construction of the Work to be conducted in the dry, and on a stable foundation, with no loss of foundation materials or materials from excavated surfaces.
- .4 Design care of water provisions so that they do not interfere with [canal] [canal and reservoir] operations.

### **1.4 SUBMITTALS**

- .1 Provide the following submittals.
- .2 A care of water plan, including Site specific drawings, outlining the care of water provisions designed as specified in clause 1.3 at least [10] [ ] days prior to commencing Work at the Site.

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- .3 A copy of each permit obtained (in addition to those obtained by the Minister) upon the Minister's request.
- .4 Water quality tests upon the Minister's request.

### **1.5 QUALITY CONTROL**

- .1 Test the water quality [criteria] at [location] to establish its quality prior to commencement of any work at the [location].
- .2 Carry out frequent water quality testing [times per month] during dewatering or other care of water operations to compare to the water quality prior to commencement of the Work.
- .3 Submit water quality test results to the Minister upon request.
- .4 Take necessary measures to ensure the water quality is made equal to or better than that which occurred prior to commencement of the Work.

### **1.6 QUALITY ASSURANCE**

- .1 Sampling by the Minister
  - .1 [ ]
  - .2 Testing by the Minister
- .2 [ ]

## **2.0 PRODUCTS – NOT USED**

## **3.0 EXECUTION**

### **3.1 GENERAL**

- .1 Provide, operate, and maintain all necessary cofferdams, channels, flumes, drains, well points, wells, sumps, pumps, pipelines, and other temporary diversion and protection works.
- .2 Provide, operate, and maintain all cold weather protective works including enclosures, insulation, and heating systems.
- .3 Have at the Site at all times, at least one standby pump for each category of pump being used for care of water.
- .4 Provide standby power sufficient for operation of all required care of water equipment.
- .5 Inspect care of water pump and pipeline systems at regular intervals not exceeding 12 hours and verify that the pumps are operating, there is sufficient fuel, and cold weather protection is adequate. If required, decrease the time interval between inspection check to correspond with the type and nature of weather and the work in progress, to the satisfaction of the Minister.

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- .6 Repair damage to any part of the Work caused by water, snow, or ice due to failure of the care of water measures. Perform additional excavations and fill placement made necessary by water, snow, or ice.
- .7 When no longer required, remove cofferdams, sumps, channels, drains, and other protective, dewatering, and temporary diversion works and finish to a leveled and neat condition.

### **3.2 ENVIRONMENTAL PROTECTION**

- .1 Do not use care of water measures that cause pollution.
- .2 Do not cause damage to property or nuisance on roads, or injury to the public or to wildlife due to discharge of water from the care of water measures.
- .3 Provide and maintain sediment ponds or other means to remove sediment from the water prior to allowing it to enter or return into the watercourse. Dispose of sediments in waste disposal areas.

**END OF SECTION**