

7.0 Hydrostatic Testing

The required hydrostatic test is proposed to be completed for the complete pipeline. The required volume of water (approximately 212,000 L) may be obtained from either a municipal or natural source. It is recommended in this situation that Beaver Dams Creek be used as the source of water.

When the hydrostatic test is complete, the discharge water is released. This water can be discharged into a municipal drain, with the City of Thorold and the NPCA's approval, or a natural water source. This flow has the potential to impact downstream domestic users, as well as, fish, aquatic and waterfowl habitats. An uncontrolled discharge of water from the hydrostatic test could cause downstream flooding, erosion or sedimentation. Other potential effects associated with uncontrolled discharge include introduction of foreign aquatic organisms to a drainage basin and introduction of hazardous materials or pollutants to soils or bodies of water. Careless refueling or failure of pumps adjacent to watercourses could result in watercourse contamination. In addition, the high pressures associated with testing could potentially endanger the general public or construction personnel in the event of line failure.

Nearby residents may experience temporary inconveniences related to noise associated with the operation of pumps utilized to fill the pipeline with test water, as well, lighting may inconvenience residents if pumping and testing continues into the night.

A Permit to Take Water from the MOE should be obtained should water be withdrawn from a natural source and the volume exceeds 50,000 L/day. Prior to the withdrawal of water from a municipal source, the City of Thorold should be contacted to confirm the maximum rate of withdrawal.

Temporary lighting should be turned on at dusk and extinguished at dawn. Lighting should be directed towards the work site but away from the direction of any nearby residences. To reduce noise levels all pumps should be properly muffled.

The MOE and the NPCA should be consulted to determine the discharge method of the hydrostatic test water. To reduce the potential for erosion and scouring at dewatering points, appropriate energy dissipation techniques should be utilized. At all dewatering points, discharge piping should be free of leaks and should be properly anchored to prevent bouncing or snaking during surging. The rate of discharge should be monitored to ensure no erosion or flooding occurs. If energy dissipation measures are found to be inadequate, the rate of dewatering should be reduced or ceased until satisfactory mitigation measures are in place.