

Southwest Calgary Ring Road

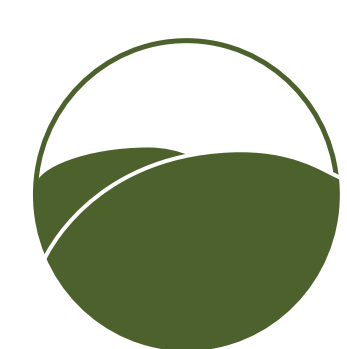
KGL and the Environment

KGL is committed to protecting the environment during construction and to reduce impacts we will:

- Implement specific Environmental Construction Operation Plans (ECO) and Environmental Management Systems (EMS)
- Provide training for workers regarding our environmental protection plans
- Provide task-specific training for employees or subcontractors involved in high-risk activities
- Complete green light checklists identifying potential environmental impacts and mitigation measures before starting work in an area

The KGL document system reduces paper by using an electronic submission process and using iPads to replace project drawings. Not only does this help reduce our carbon footprint, but it also allows us to conserve considerable funds over the construction period.

2017 Environmental Management Overview

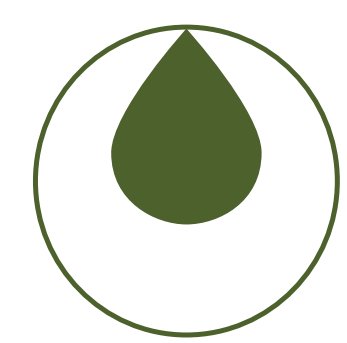


Land Management

All environmentally-sensitive areas, including waterbodies, wetlands and areas at risk for erosion, will be identified, monitored and protected using the following methods:

- Vegetation buffers
- Silt fencing
- Temporary seeding or protection blankets
- Use of dikes, berms or ditches to intercept and divert runoff
- Separate stockpiles for different soil types
- Stockpile topsoil for reclamation
- Vegetation management including:
 - » Weed inspections and control
 - » Mulching
 - » Seeding
 - » Minimizing disturbed area

**All requirements for wetland compensation as determined by Alberta Environment and Parks will be met*



Water Management

- Water sampling
- Build new channels to match the existing channels, including cross sections, curvature, morphology and slope
- No vehicles or equipment to cross buffers or enter waterbodies



Air Management

- Dust monitoring and suppression:
 - » Dust mitigation activities including watering and dust palliatives
 - » Reduction of vehicle speeds during dry or windy periods
 - » Use of seeding tackifiers
- Maintain equipment in good working order



Spill Management

- Focus on spill prevention and response including:
 - » Safe operation of vehicles and equipment
 - » Best practices for fuel transfer, refueling and maintenance
 - » Identifying and preparing spill response materials
 - » Equipment inspections and preventative maintenance
 - » Housekeeping (safe chemical storage, waste management, etc.)
- Maintain a supply of easily accessible clean-up supplies
- Clean-up and management of pre-existing contaminated sites
- Report all spills to the proper authorities



Waste Management

- Project-wide waste recycling programs
- Materials will be collected, categorized and recycled where appropriate
- Waste will be handled, stored and disposed of in accordance with regulations



Noise Management

- Adhere to local noise bylaws or apply for an exemption
- Limit high noise activities to project hours, which are typically:
 - » Mondays to Saturdays 7:00 a.m. to 10:00 p.m.
 - » Sundays and holidays 9:00 a.m. to 10:00 p.m.

**There may be changes to the schedule depending on the nature of construction*



Animal Management

- Wildlife identification cards for field observations
- Wildlife crossings preserved at key locations
- Site inspections with biologists

The Regulatory Structure



- An environmental assessment was completed identifying potential impacts and mitigation measures
- Implement specific Environmental Construction Operation Plans (ECO) and Environmental Management Systems (EMS)
- Also applying for a number of regulatory permits:
 - » Elbow River Realignment – Water Act, Fisheries Act
 - » Fish Creek Realignment – Water Act, Fisheries Act
 - » Cullen Creek – Water Act, Fisheries Act
 - » Wetlands – Water Act
 - » Applicable permits from the municipal, provincial and federal governments
- All permits subject to regulatory consultation
- Excavations are being monitored for paleontological and archaeological finds