

## **54.4 CHEMICAL VEGETATION CONTROL**

### **54.4.1 GENERAL**

The Work consists of controlling weeds, grass, brush and small trees less than 2 m in height through the use of chemicals. The Work involves spraying with mobile equipment over relatively large areas and spot or hand spraying of small areas or areas which would normally be inaccessible to mobile equipment.

### **54.4.2 MATERIALS**

The Contractor shall select and supply the appropriate chemical for vegetation control. Only chemicals approved by the appropriate department of the Federal government for general industrial spraying shall be used. The Contractor shall supply any signs required to identify treated areas in public use areas.

The Contractor shall select and supply an appropriate dye to add to the chemicals, to visibly mark treated areas.

### **54.4.3 OPERATING STANDARDS, APPROVALS AND PERMITS**

The Contractor shall comply with the operating standards and practices of the Industrial Vegetation Management Association of Alberta and shall have a service approval agreement from Alberta Environment. All personnel applying chemicals shall have a valid applicators licence issued by Alberta Environment.

Special Use Approvals issued by Alberta Environment will be required in instances where chemicals are to be sprayed within 30 m of an open body of water. In such instances, the Contractor shall advertise the proposed work in newspapers local to the area, 30 days prior to the scheduled starting date of the Work. The Contractor shall provide the Engineer with a copy of the newspapers containing the advertisement. All public concerns shall be referred, by the Contractor, to Alberta Environment who will identify any work conditions in the approval. The Contractor shall be responsible for obtaining the Special Use Approval and shall comply with the conditions specified therein.

### **54.4.4 PROCEDURES**

The Contractor's use of chemicals, application rates and methods shall comply with the policies, rules and regulations of Alberta Environment.

The Contractor shall maintain accurate records of all applications including the type and amounts of chemicals used and the locations treated. The Contractor shall supply this information to the Engineer along with copies of the bills of lading and the manufacturer's recommended application rates for the chemicals used.

The Contractor shall apply chemicals to specified areas only and shall dispose of empty chemical containers at approved disposal sites.

The Contractor shall mix the dye with the chemical at the manufacturer's recommended rates.

## **54.4.5 METHODS OF APPLICATION**

Areas of application will be defined as:

### **54.4.5.1 Mobile Spray - On Road**

Continuous treatment areas with a minimum width of 1.5 m which:

- ! consist of at least 3 ha in 20 km of roadway length in not more than two individual areas (areas that cannot be sprayed due to landowner objections, environmental concerns, et cetera are not considered breaks in continuous areas)
- ! are adjacent to and extend up to 14 m from the shoulder edge, and
- ! are of a constant width. (full right-of-way is considered a constant width even though the right-of-way may vary)

### **54.4.5.2 Mobile Spray - Off Road**

Continuous treatment areas which:

- ! consist of at least 3 ha in 20 km of roadway length in not more than two individual areas (areas that cannot be sprayed due to landowner objections, environmental concerns, et cetera are not considered breaks in continuous areas)
- ! are outside of 14 m from the shoulder edge,
- ! are of a constant width. (up to the right-of-way is considered a constant width even though the right-of-way may vary and
- ! are mobile accessible and for which it is desirable to utilize off-road equipment.

### **54.4.5.3 Mobile Spot Spray - On-Road**

All areas not defined as "Mobile Spray- On Road", "Mobile Spray - Off Road", "Mobile Spot Spray - Off-Road" or "Hand Spray".

### **54.4.5.4 Mobile Spot Spray - Off-Road**

Intermittent areas within the right-of-way, outside of 14 m from the shoulder edge which are mobile accessible and for which it is desirable to utilize off-road equipment. For example: certain slopes, fence lines, property lines, overpasses and interchanges.

### **54.4.5.5 Hand Spray**

All small select areas not accessible to any type of mobile equipment.

## **54.4.6 TIME TO COMPLETE**

In urgent situations, the Contractor shall complete the Work within 5 calendar days of the issuance of the Work Order. In all other cases, the Work shall be completed within 15 calendar days of the issuance of the Work Order.

#### **54.4.7 ACCEPTANCE CRITERIA**

The Work will be considered acceptable under the following conditions:

- ! All specified areas have been visibly treated and at least 75% of the vegetation shows growth retardation 10 days after spraying.
- ! At least 90% of the vegetation shows growth retardation 40 days after spraying.
- ! No areas outside the specified areas show chemical damage.
- ! The Contractor has provided the Engineer with accurate records of the locations treated and the types and amounts of chemicals used.

#### **54.4.8 MEASUREMENT AND PAYMENT**

##### **54.4.8.1 General**

Measurement of chemical vegetation control will be in hectares or square metres depending on the method of application. Areas will be measured and paid for only once per Work Order regardless of the number of times the area is treated. The minimum width used for calculating the area for Vegetation Control - Mobile Spray will be 1.5 metres.

When the Engineer determines that a pilot vehicle and/or arrowboard is required for traffic accommodation the pilot vehicle will be paid for as Extra Work in accordance with Specification 51.2, General (for Maintenance Work) and the arrowboard will be paid for in accordance with Specification 53.38, Supply of Arrowboards for Traffic Control.

##### **54.4.8.2 Mobile Spray - On-Road**

Payment for chemical vegetation control using on-road, mobile equipment will be made at the unit price bid per hectare for "Vegetation Control - Mobile Spray - On-Road". This payment will be full compensation for obtaining all necessary approvals and permits, spraying the vegetation using on-road, mobile equipment, and all labour, equipment, tools and incidentals necessary to complete the Work.

##### **54.4.8.3 Mobile Spray - Off-Road**

Payment for chemical vegetation control using off-road, mobile equipment will be made at the unit price bid per hectare for "Vegetation Control - Mobile Spray - Off-Road". This payment will be full compensation for obtaining all necessary approvals and permits, spraying the vegetation using off-road mobile equipment, and all labour, equipment, tools and incidentals necessary to complete the Work.

##### **54.4.8.4 Mobile Spot Spray - On-Road**

Payment for spot chemical vegetation control using on-road, mobile equipment will be made at the unit price bid per hectare for "Vegetation Control - Mobile Spot Spray - On-Road." This payment will be full compensation for obtaining all necessary approvals and permits, spraying the vegetation using on-road, mobile equipment, and all labour, equipment, tools and incidentals necessary to complete the Work.

##### **54.4.8.5 Mobile Spot Spray - Off-Road**

Payment for spot chemical vegetation control using off-road, mobile equipment will be made at the unit price bid per hectare for "Vegetation Control - Mobile Spot Spray - Off-Road." This payment will be full compensation for obtaining all necessary approvals and permits, spraying the vegetation using off-road, mobile equipment, and all

labour, equipment, tools and incidentals necessary to complete the Work.

#### **54.4.8.6 Hand Spray**

Payment for spot vegetation control using hand equipment will be made at the unit price bid per square metre for "Vegetation Control - Hand Spray." This payment will be full compensation for obtaining all necessary approvals and permits, hand spraying the vegetation, and all labour, equipment, tools and incidentals necessary to complete the Work.

#### **54.4.8.7 Scheduling Premiums**

In urgent situations where the Contractor is required to complete the Work within 5 days of the issuance of the Work Order, an additional payment will be made at the applicable unit price bid per occurrence for "Mobile Spray - Premium" or "Hand Spray - Premium". This payment will be full compensation for complying with the accelerated scheduling required to complete of the Work.

#### **54.4.8.8 Chemicals and Dye**

Payment for the supply of chemicals and dye will be made as "Extra Work" in accordance with Specification 51.2, General for Maintenance Work. The Engineer will review the bills of lading, transportation of dangerous goods information, the manufacturer's recommended application rates, and production reports supplied by the Contractor to determine quantities.

No payment will be made for materials used for any additional applications required to achieve compliance with the Acceptance Criteria.

#### **54.4.9 WARRANTY**

There is no warranty period for this Work.