PEST MANAGEMENT PLAN
# REVISION SUMMARY

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Revised By</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>2019-01</td>
<td>Issued for Review</td>
<td>Bob Ellis</td>
<td>February 1, 2019</td>
</tr>
<tr>
<td>2019-04</td>
<td>Approved Plan</td>
<td></td>
<td>April 18, 2019</td>
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1.0 SCOPE, PURPOSE AND PLAN

1.1 Scope

Painted Pony Energy Ltd. (Painted Pony) operates infrastructure which includes facilities, wellsites, pipelines and roads in the province of British Columbia. Painted Pony has developed and implemented a Pest Management Plan as part of Painted Pony’s ongoing operations that ensures the safe and reliable operation of their facilities, pipelines, wellsites, roads and associated infrastructure. The purpose of this plan is to define the processes used by Painted Pony to manage vegetation within property owned or operated by Painted Pony Energy Ltd. in Northeastern British Columbia.

All Painted Pony owned and operated infrastructure located in British Columbia is included within the scope of this Plan. Painted Pony has developed this Pest Management Plan for managing pest populations or reducing damage caused by pests, based on integrated pest management, and establish methods of handling, preparing, mixing, applying and otherwise using pesticides within the program, as well as comply with the applicable provincial acts and regulations in British Columbia including:

- B.C. Integrated Pest Management Act [SBC 2003] Chapter 58
- BC Ministry of Environment, Integrated Pest Management Act and Regulation Summary

Painted Pony expects all plans, policies and guidelines developed to protect its infrastructure will be followed when activities are conducted on Painted Pony’s properties. These standards are maintained through a document revision process, completed by the various owner groups and available to personnel via Painted Pony’s online document management system (Blackbox).

1.2 Responsibilities and Contact Information

Painted Pony Pest Management Plan is implemented under the following Painted Pony approved plans;

a) Professional Practice Management Plan (PPMP)
b) Integrity Management Plan – Facilities (IMP-F)
c) Integrity Management Plan - Pipelines (IMP-P)

The PPMP, IMP-F and IMP-P has the full support of the President and Chief Executive Officer (CEO) and Chief Operating Officer (COO) and meets the requirements of Painted Pony’s Infrastructure Integrity Management Policy.
The President and CEO hereby appoints the COO as the Management Representative for this program. The COO is responsible for ensuring that all the requirements of this program are implemented and followed and has the authority and freedom to use necessary means to affect this responsibility, including providing adequate financial resources and trained personnel to implement the program.

Contacts for the Pest Management Plan are as follows;

**Painted Pony Energy Ltd**

- **Phil Goldsney, HSE Manager, Calgary Office**  
  1200, 520 – 3rd Avenue SW, Calgary, Alberta, T2P 0R3  
  Phone: (403) 475-0440  
  E-mail: phil.goldsney@paintedpony.ca

- **Dustin Huhn, Production Superintendent, FSJ Office**  
  10511 - 100th Avenue, Fort St. John, BC, V1J 1Z1  
  Phone: (250) 787-2186  
  Email: dustin.huhn@paintedpony.ca

- **Garry Beamish, Integrity/HSE Foreman, FSJ Office**  
  10511 - 100th Avenue, Fort St. John, BC, V1J 1Z1  
  Phone: (250) 787-1233  
  Email: garry.beamish@paintedpony.ca

### 1.3 Purpose

The purpose of this Pest Management Plan is through planning and proper control methods the use of herbicides can be monitored, controlled and possibly reduced on Painted Pony’s properties. Monitoring vegetation and environmental conditions will assist in identifying potential vegetation problems and treatment decisions.

Suppressing vegetation populations to acceptable levels using strategies based on consideration of biological, mechanical and chemical controls in appropriate combinations (i.e., treatment options), in conjunction with environmental and human health protection.

The accurate identification of unwanted vegetation growing on Painted Pony Energy Ltd. rights of way, facilities, and access roads is important for several reasons:

- The method of control for vegetation is dependent on the recognition of the density and the specific type of plant.
- Depending on growth rates, characteristics, and location, control may not be warranted or desirable.
- Control methods may differ depending on the species of plant. Some plant species may be easily controlled by non-chemical methods, while other species may be controlled through the use of certain types of herbicides.

### 1.4 Program Plan (Prevention)

Painted Pony’s Pest Management Plan is design to implement a program that integrates manual, mechanical, grass reseeding and herbicide treatment to convert plant communities to a composition and structure that is compatible with surrounding vegetation. The plans are developed to prevent vegetation from becoming established, as opposed to treating existing vegetation. This preventative approach will;
• Prevent the spread of and eradicate noxious and invasive species on leases, riser locations, pipeline and road rights of way that may impede site access, restrict routine maintenance and safety checks.
• Reduce the risk of fire hazards due to problem vegetation.
• Target vegetation including weed species listed in Peace River Regional District, Invasive Plant Program, Strategic Plan and Profile or other problem vegetation as discovered by the herbicide applicator.
• Control the spread and establishment of noxious weeds population to adjacent lands.
• Maintain a safe corridor that will allow for routine monitoring and will work to control the spread of invasive and noxious weeds.

Painted Pony will take measures to stop initial growth of vegetation by:
• Maintaining leases, riser locations, and rights of way bladed and stripped of all vegetation at the time of construction.
• Pipeline rights of ways will be grass seeded to reduce the establishment of broadleaf vegetation.
• Herbicides will be used to maintain bare soil in and around well leases and riser locations and to target noxious weeds.
• Spraying will be conducted on most sites, generally once in spring and once in summer.

Painted Pony will continue to evaluate the effectiveness of vegetation management strategies.

1.5 Lease and Riser locations
Bare soils are desirable around well infrastructure to protect adjacent lands from the spread and establishment of invasive plant species that may propagate on these sites and reduce the risk of damage from fires.

Painted Pony will maintain bare soil within 3 m of the site structures or 1 m past the fence line for fenced sites. Bare soil at riser sites reduces the risk of environmental damage from wildfire and allows for easier detection of leaks.

1.6 Pipeline and Road Rights of Way
Painted Pony will follow the Plans of the Peace River Regional District, Invasive Plant Program, Strategic Plan and Profile. Weed species are targeted in this strategic plan and profile. The PRRD Strategic Plan and Profile is updated yearly to reflect changing priorities and species present. The list of targeted species will therefore change as well, to reflect the changes of the PRRD Strategic Plan and Profile. The Peace River Regional District, Evasive Plant Program, Strategic Plan and Profile is located in Blackbox and updated annually;

Location 1.27 Painted Pony Instructions and Extensive Documents
1.27.4 Pest Management Plan / Lease, Road & Pipeline List

Access requirements for inspection purposes to remote sites such as cathodic protection test points and risers may involve trimming or removal of brush and trees as needed to protect the pipeline and right of way. Herbicide may also be used to control the regrowth
of woody vegetation. The establishment of competing vegetation such as grass and other low growing, non-woody species may also be done to prevent the growth of invasive weeds and brush.

2.0 MONITORING METHODS

Painted Pony Energy Ltd. will contract third party services (Pest Management Contractor) for all pesticide application and vegetation control. Painted Pony will maintain an Approved Vendors List (AVL) for those companies conducting pesticide management.

Location 1.10 Painted Pony Instructions and Extensive Documents
          Approved Vendors List / Documents

Painted Pony will ensure the Pest Management Contractor utilizes Painted Pony’s Treatment Assessment and Monitoring Form whereby all vegetation management prescriptions, treatment information, site conditions, and monitoring methods are documented on a site-by-site basis. Painted Pony will keep copies of these treatment forms on file in Blackbox.

2.1 Identifying Treatment Boundaries

Painted Pony has identified the treatment boundaries (Appendix A) for infrastructure which includes facilities, wellsites, pipelines and roads in the province of British Columbia that are covered under this Plan. Prior to commencing Painted Pony will identify all its well leases, riser locations, roads and pipeline rights of way that require inspection. This inventory database will identify any pesticide free zones (PFZ), any no-treatment zones (NTZ) and any leases that are adjacent to certified organic farms. These sites will be subject to mechanical methods only. PFZ’s and NTZ’s around sensitive areas such as riparian areas, water sources, or wildlife habitat, will also be subject to mechanical control.

Painted Pony will maintain a map or detailed maps that show all leases, risers, roads and pipeline rights of way that are covered under this Plan. The map will be updated annually prior to commencement of any vegetation control. The updated map(s) will be maintained in Blackbox;

Location 1.27 Painted Pony Instructions and Extensive Documents
          1.27.4 Pest Management Plan / Lease, Road & Pipeline List

The site list and directions to leases will be amended from time to time as new leases and rights of way are developed and old well leases are included in the inventory database.

The Pest Management Contractor will ensure the location is verified, mapped, and GPS coordinates are recorded before it is treated. Each well lease will be identified in the field with a unique identifying number.

2.2 Assessing Need for Pesticide Use – Pre-treatment

A Notice of Intent (NIT) to treat will be sent to the Ministry Administrator at least 21 days prior to the commencement of any pesticide treatments. The NIT will as a minimum, contain the following information;

- Painted Pony’s contact information.
- Description of the proposed treatment locations for the calendar year and a map or diagram that clearly identifies those locations;
• Identify any pesticide free zones (PFZ’s).
• Description of the proposed treatment for each treatment area including the pesticide to be used and its method of application
• The total area of treatment areas in the treatment locations

Painted Pony will assign a herbicide technician to evaluate and treat the site. The herbicide technician visits the site and determines the need for vegetation removal. The herbicide technician then applies herbicide when optimum treatment conditions allow, or manually removes the vegetation if necessary. In general, herbicide is applied twice per year to ensure that all vegetation is treated – once in the spring, and again in summer.

The Treatment Assessment and Monitoring Form (Appendix B, Sections A&B) will include the treatment location, targeted species, herbicide(s) applied, active ingredient, P.C.P. No., application rate, treatment area and size, application method, weather conditions and all applicable buffers such as Pesticide Free Zones (PFZ’s) and No Treatment Zones (NTZ’s). The template form will be used and information collected for both pre and post treatments. These completed pesticide treatment forms will be filed in Blackbox;

A template of the form is filed in Blackbox;

Location 1.27 Painted Pony Instructions and Extensive Documents
1.27.3 Pest Management Plan / Forms and Templates

The completed form will be filed in Blackbox according to the area integrity project as follows;

Location Site Specific Area Integrity Project
4.07 Regulatory-Utilities / Vegetation Management

2.3 Rationale of Treatment Methods

The two treatment options include chemical control and mechanical control of weeds. Within these options are different methods for treatment. Application method depends on the size of the area that requires treatment, the accuracy needed, as well as the vicinity to certified organic farms or fish/riparian habitat. An inventory database exists for all of the well leases that are managed by Painted Pony Energy Ltd., which identifies the leases that are adjacent to certified organic farms. These sites will be subject to mechanical methods only. Pesticide free zones around sensitive areas such as riparian areas, water sources, or wildlife habitat, will also be subject to mechanical control.

2.4 Daily Operations

On an ongoing basis Painted Pony operators conduct non recorded visual inspections of wellsite leases, facilities, roads and pipeline rights of way (ROW’s). If the Operator discovers deleterious vegetation on any Painted Pony site, the Operator completes the Noxious Weed Identification Form (Appendix C) and submits the completed form to the Area or HSE/ Integrity Foreman for review. The Pest Management Contractor is notified. The Pest Management Contractor will assign a herbicide technician to evaluate and treat the site. The herbicide technician visits the site and determines the need for vegetation removal. The herbicide technician then applies herbicide when optimum treatment conditions allow, or manually removes the vegetation if necessary.
In general the following flowchart (Table 1) is applicable for well leases and riser locations;

Table 1: Treatment Flowchart 
Lease and Riser Locations

1. Inspect Site
2. Vegetation removal needed?
   - Yes: Determine treatment
   - No: Take appropriate precautions to protect environment
3. Are there treatment restrictions? (PFZs, wells, open water, etc.)
   - Yes: Mark PFZs, use different herbicides, mechanically treat at a different time
   - No: Treat site (Mechanical or Chemical)
4. Reassess site
5. Secondary treatment required?
   - Yes: Re-treat site
   - No: Reassess site
6. Continue to monitor site
In general the following flowchart (Table 2) is applicable for well leases and riser locations;

**Table 2:** Treatment Flowchart (Road and Pipeline ROW's)

1. **Inspect right of way**
   - Yes → **Map and record site** → **Determine treatment**
   - No → **Continue to monitor site**

2. **Vegetation (brush) removal required?**
   - Yes → **Determine treatment**
   - No → **Take appropriate precautions to protect environment**

3. **Noxious weeds present?**
   - Yes → **Are there chemical treatment restrictions? (PFZs, water sources, etc.)**
     - Yes → **Chemical treatment** → Reassess site → **Re-treat site as needed**
     - No → **Mechanical treatment**
   - No → **Determine treatment**

4. **Map and record site**
5. **Determine treatment**
6. **Take appropriate precautions to protect environment**
7. **Reassess site**
8. **Re-treat site as needed**

**Treatment Options**:
- **Mowing** → Large area with machine access
- **Broadcast spraying** → Large area with machine access
- **Manual slashing** → Large area with machine access
- **Spot spraying** → Large area with machine access
- **Manual or machine falling** → Large area with machine access
- **Cut stump application** → Large area with machine access
2.5 Document Control

The “control copy” of the Pest Management Plan will be maintained in Blackbox;

Location

1.27 Painted Pony Instructions and Extensive Documents
1.27.2 Pest Management Plan

The Pest Management Plan will be available to;

- Individuals at the location identified in the pesticide use notice.
- any person who requests it for inspection, and
- to an inspector without charge, or
- to any other person who requests it and who pays to the person who has the pest management plan a fee of not more than the prescribed amount.

3.0 CONTROL METHODS

Painted Pony will use a certified Pesticide Applicator with knowledge and training in the procedures for the safe use of pesticides on all Painted Pony leases, roads and rights of way while pesticides are being used. Painted Pony will utilize the appropriate control methods which will in general will utilize some or all of the following to complete the control of vegetation on Painted Pony leases, risers and rights of way.

3.1 Backpack Sprayer

The spot or broadcast treatment of noxious weeds using a backpack sprayer in and around buildings, on small sites, along road and pipeline rights of way is effective. Backpack sprayers may also be used to control small brush on road and pipeline rights of way.

Painted Pony will be aware of the following;

- To minimize the risk of spillage and over spraying of chemical herbicide.
- Avoid use of some chemicals while livestock are actively grazing.
- Avoid use in PFZ’s and NTZ’s.

3.2 Boom Sprayer on ATV or 4WD vehicle

Boom sprayer treatments may be used on larger areas and areas that require less specific application than backpack application, e.g. pipeline rights of way and larger leases that surround the well infrastructure. This enables the application of herbicide over a larger area more efficiently.

Painted Pony will be aware of the following;

- To minimize the risk of spillage and over spraying of chemical herbicide.
- Avoid use of some chemicals while livestock are actively grazing.
- Avoid use in PFZ’s and NTZ’s.

3.3 Cut Stump Applications (leases and ROW’s)

Painted Pony may employ this method on areas that have previously been mechanically treated to remove brush or trees. This method prevents the regrowth of brush or trees from the root system and increases the amount of time between required mechanical removals.
Painted Pony will be aware of the following:

- To minimize the risk of spillage. Mixing of chemicals with oil requires more extensive cleanup and has a higher environmental risk.
- Avoid use of some chemicals while livestock are actively grazing.
- Avoid use in PFZ’s and NTZ’s.

3.4 Non-pesticide Methods (hand pulling, hand tools)

Painted Pony may use non-pesticide methods of weed control including hand pulling and use of hand tools. Non-pesticide methods will be used on sites adjacent to certified organic farms (or mowing, brush cutting, tillng), and within PFZ’s. This method is used when herbicide application is not warranted (e.g. near waterbodies, PFZ’s, riparian areas, and organic farms).

Mowing, brushing, slashing, or mulching may be used to remove brush and trees from rights of way and some leases. The work may be accomplished with hand tools or machinery. Removal of vegetation reduces the risk of fires.

Blading or soil removal may be used to clear large area of topsoil and vegetation. Top soil must be segregated and stored separate from the site.

3.5 Cultural / Natural Control

Painted Pony may require the establishment of acceptable vegetation on sites to prevent the spread of noxious weeds. Painted Pony may implement a natural seeding program consisting of local species or manual seeding with a seed mix. This method can be used on areas of bare or disturbed soils that do not need to clear of vegetation. Yearly monitoring will be required as it may take several years for vegetation to become established.

4.0 EFFECTIVENESS OF TREATMENT – POST-TREATMENT

All sections of the Treatment Assessment and Monitoring Form including the post-treatment inspection will be completed for all sites requiring herbicide treatment. A post-treatment inspection is required to determine the effectiveness of the treatment. If the Painted Pony and the herbicide technician collectively determine that the efficacy of the treatment is unacceptable, then a field visit will be conducted to assess whether another treatment is required. Documentation for post-treatment inspection is included on the Treatment Assessment and Monitoring Form (Appendix C, Section C) which includes the effects on non-target vegetation as well as other data collected. Post-treatment inspection will be followed by a final inspection/monitoring. Documentation of final inspection/monitoring will be completed on the Treatment Assessment and Monitoring Form (Appendix C, Section D).

The list of “Painted Pony Pesticide Application Sites” will be reviewed annually (every spring) prior to the commencement of the herbicide program and will include any new well leases, roads and pipeline rights of way.

Painted Pony will submit an Annual Report to the BC Commission Administrator by January 31st of each year detailing the following information for each pesticide used in the preceding calendar year as per Section 39 of the Integrated Pest Management Regulation. The Annual Report will contain the following:
5.0 PROCEDURES FOR THE SAFE USE OF PESTICIDES

5.1 Practices and Procedures
Painted Pony as part of its due diligence will ensure the company implements and maintains the following:

- A Pest Management Plan that meets the requirements and practices referenced in the “Canadian Pesticide Education Program Applicator Core Manual British Columbia Edition: 2011”.
- Knowledge of and will follow requirements for worker safety as per the Workers Compensation Act and the Industrial Health and Safety Regulations.
- Maintains first aid specific to pesticide exposure as per Chapter 7 of the Canadian Pesticide Education Program Applicator Core Manual.
- Has certified Pesticide Applicator with knowledge and training in the procedures for the safe use of pesticides while on site where pesticides are being used.

5.2 Transportation of Pesticides
The transport of herbicides is regulated by the federal Transportation of Dangerous Goods Act (TDGA) and the British Columbia Integrated Pest Management Act & Regulation.

Painted Pony will ensure:

- Any required material safety data sheets (MSDS) will be carried in each vehicle during herbicide transport and use.
- Spill-containment and clean up equipment will be carried separately from herbicides but in close proximity to the herbicide on each vehicle during herbicide transport and use.
- Pesticides will be transported in a manner that is sufficient to prevent escape, discharge, or unauthorized removal from the transport vehicle, and that prevents the contamination of food, drink, or household items. These chemicals will be kept under lock and key when they are not being utilized.
- Drums or tanks used for transport will have a conspicuously displayed label that shows the active ingredient common name, trade name, the pesticide concentration, the pesticide P.C.P. Act registration number, and the manufacturer or owner.
- Anyone who transports pesticides must become familiar with the requirements applicable to the type and quantity of pesticides being transported. The requirements for certification, training, administration, signage and spill response under the Transportation of Dangerous Goods Act and Regulations will be followed.
PEST MANAGEMENT PLAN

5.3 Storing Pesticides

Herbicides will be stored in accordance with the Integrated Pest Management Act & Regulation and the Workers’ Compensation Board document “Standard Practices for Pesticide Applicators.”

Painted Pony will ensure;

- Material Safety Data Sheets are available for each pesticide stored on site.
- Pesticides are stored in original containers or in properly labeled containers designed for pesticide storage. Containers will be inspected periodically to ensure that they are free from leaks and damage.
- Drums or tanks holding pesticides held in storage will have secondary containment as per section 5.5 of Painted Pony’s Tank Management Guide.

Location 1.27 Painted Pony Instructions and Extensive Documents
1.27.2 Tank Management Guidelines

- Drums or tanks holding pesticides will have a conspicuously displayed label showing the active ingredient common name, trade name, the pesticide concentration, the pesticide P.C.P. Act registration number, and the manufacturer or owner.
- Chemicals will be stored separately from food intended for human or animal consumption, in a room that is well ventilated to remove vapours to the outside atmosphere, away from excessive heat and cold. Domestic pesticides will be stored at least 10 m away from food or drink intended for human consumption.
- Chemical storage building or area will be equipped with adequate signage, access and security measures. Signage on storeroom will be clearly visible; “Warning: Chemical Storage – Authorized Persons Only.”
- Chemicals that release vapours with a high inhalation hazard will not be stored in a facility that is attached to a building where people reside.
- The local Fire Department will be informed on a regular basis of the location of storage facilities and the quantities of pesticides located there, as required by the Integrated Pest Management Act Regulation.
- An emergency spill response kit and first aid kit will be readily available at the storage site. Emergency numbers will be posted at the storage site.
- Any storage precautions on the Pesticide label will be observed; for example, store glyphosate away from galvanized metal since hydrogen gas will be produced on contact.
- Personal Protective Equipment (PPE) will not be stored with pesticides, particularly in pickup trucks.
- Pesticides will be stored under lock and key accessible only to authorized personnel.
5.4 Mixing, Loading and Applying Pesticides

Painted Pony will ensure:

- A certified Pesticide Applicator will be present when pesticides are applied.
- Painted Pony operators and contract workers will wear appropriate and correct PPE while handling pesticides. Minimum requirements are, a hard hat, coveralls, gloves, and boots will be worn. Contact lenses cannot be worn while in contact with pesticides. More detailed explanation of PPE is in Chapter 7 of the Canadian Pesticide Education Program Applicator Core Manual British Columbia Edition: 2011.
- Each worker involved in the pesticide treatment will have a change of clothing at the mixing and loading site.
- Shower facilities will be available for all applicators daily.
- Pesticide Material Safety Data Sheets will be readily available at all times.
- Suitable warning signs that include a danger symbol, the type of pesticide applied, the date sprayed, the re-entry date and an emergency number will be posted at the points of entry at the field site before spraying begins.
- Closed-handling systems will be used whenever possible.
- Equipment used to mix and apply pesticides will be cleaned and inspected periodically in order to ensure that they are working properly.
- Workers will not eat, drink or smoke while using pesticides.

5.5 Mixing and Loading Procedures

Painted Pony will ensure all mixing and loading will meet the following criteria;

- Before mixing, read the product label and double check the safety precautions.
- Wear correct PPE, which may include eye protection, rubber boots, rubber aprons, gloves, hat, and respirator.
- Have emergency wash facilities, first aid equipment, and emergency phone numbers close at hand.
- Mix in good light, in a well-ventilated space, under low wind conditions. Stand upwind.
- While pouring, keep container below eye level to prevent chemical from coming into contact with face or eyes.
- Use a sharp knife to open paper bags and clean after use.
- Pre-mix wettable powders before adding it to the mixing tank. Make a slurry of the wettable powder before putting in into the spray tank.
- Grounding procedures may be necessary when dealing with flammable materials (pesticides formulated with xylene or kerosene) to prevent sparking due to static build-up.
- If a pesticide spills or splashes on the applicator, they will stop immediately, remove clothing and obtain medical assistance. Clean up any pesticides spilled.
- Mixing and loading of pesticides will not occur within 10 meters of a waterbody or stream.

NOTE: Mixing of pesticides in the field will require the approval of the HSE/ Integrity Foreman or the Area Foreman to ensure the appropriate grounding and eye
5.6 Signs Identifying Treatment Areas

Painted Pony will under section 64 of the Integrated Pest Management Regulation post a treatment notice on public land prior to implementing vegetation management treatments. The water-resistant sign (min 550 cm²) will be clearly visible and legible from approaching public to the treatment area. The number of signs posted at each site will be determined by Painted Pony using best practices for the area. Signs will remain posted for a minimum of 14 days post-treatment.

As a minimum each herbicide treatment sign will specify:

- Title - “Notice of Herbicide Used” (Bold Block Letters).
- Proposed date and time of start of application.
- Name of target pest,
- Confirmation Pest Management Plan #,
- Pesticide active ingredient name and Pest Control Product Act Registration No. (PCP)
- Pesticide Trade Name
- Common Name of the Herbicide Active Ingredient
- Licensee Contact Phone # (further information regarding pesticide used)
- Precautions to minimize exposure (within treatment area)

Signs will be posted where “best practices” would seem to require it.

“Best Practices” would identify such areas where the public may generally be expected to enter, walk or stop and at access points on primary roads.

For road and pipeline rights of way postings will be done along the edge of the corridor where the treatment begins and where it ends.

For fenced facilities, signs can be placed at the entry gates.

5.7 Application of Pesticides

When the application of pesticides is required Painted Pony will ensure the following;

5.7.1 Maintaining and Calibrating Pesticide Application Equipment

Regular maintenance will be done on all equipment before it is used for treatment. Nozzles and pumps will be tested, cleaned or replaced regularly to prevent clogging and damage. Calibration testing and adjustment will be done on an ongoing basis to ensure that proper application rates are obtained. All calibrations will be documented and kept on record. Refer to Appendix B for various application equipment calibration guidelines and template calibration records that will be documented. Calibration will be done on new equipment, when the pesticide or dilution is changed, and at regular intervals to determine whether wear has changed pesticide output. Calibration intervals may be increased as necessary for application of abrasive wettable powders. Calibrations and spray rates will be conducted as per the manufacturer’s recommendations on the accompanying label. All applicators will be certified, or supervised by a certified individual, thus well trained in calibration procedures.
5.7.2 Prior to Application

- The application equipment is calibrated as per 5.6.1.
- Ensure there is the required number of days between treatment and the harvest of food crops or grazing.
- Chemicals will not be applied during heavy rainfall or if the forecast determined that rainfall is imminent.
- A certified Pesticide Applicator is present.
- Warning signs are posted at points of entry and all operations and residents are informed of spraying activities. The signs will contain the information and meet the requirements of Section 5.6.
- All people are wearing the correct PPE.
- Hand and eye wash stations are at hand in case of emergency.
- Sufficient spray will be mixed for only one treatment so as to minimize unused pesticide.
- The application equipment is checked proper operation. Examine for leaking hoses or connections and plugged or worn nozzles. Examine seals and filter openings to ensure they will prevent spillage.
- The instruction label of the pesticide is reviewed prior to applying the pesticide.

5.7.3 During Application

- Pesticide Applicator will not work alone when using highly toxic chemicals.
- Chemicals will be mix and applied according to the recommended rate on the label.
- Applications will be applied 30 minutes before sunrise and 30 minutes after sunset.
- Spray rates are a function of a) amount of growth, b) history of past treatment and c) vegetation type. Rates are determined at the time of the initial site visit and manufacturer’s recommendations are considered.
- Minimize drift away from the treatment area by following these precautions:
  a) Use the lowest possible application rate.
  b) Release spray as close to the ground as possible.
  c) Use a slow speed for motorized application equipment.
  d) Use nozzles that eliminate fine droplets.
  e) Spraying should cease when wind speeds exceed 8 km/hr unless sprayer shrouds are used.
- Be careful when applying pesticides at high temperatures (greater than 30° C) since vapours may be released.

5.7.4 After Application (record keeping)

- Keep proper records of pesticide application by completing the Painted Pony Pest Treatment Assessment and Monitoring Form.
- Check to ensure treatment notice signs at the access points to the treated areas have been set up.
- All calibrations will be documented and kept on record.
5.8 Disposal of Pesticides

When the disposal of pesticides is required Painted Pony will ensure the following:

- Pesticide containers will be emptied, pressure-rinsed or triple rinsed, pierced and recycled or disposed of in an approved landfill.
- Where possible, empty pesticide containers will be returned to the dealer for re-use. If containers cannot be recycled then they will be destroyed so they cannot be re-used.
- Containers used to prepare, mix or apply a pesticide will not be submerged or washed out in a body of water.
- Rinse water produced by cleaning containers should be drained into spray tanks and applied to the treatment area. Waste water produced by washing equipment or rinse water that cannot be applied to the treatment area may be applied to the ground site of pesticide applications under the following conditions:
  - The site is flat.
  - The site is not a wet lowland (boggy area).
  - The site does not consist of porous material such as gravel or sand.
  - The site is at least 30 m from surface water or any well.
- If there is pesticide left that cannot be used then it will be disposed of at a hazardous waste site or facility that can properly dispose of pesticides.

Painted Pony operators or contract operators will not mix, load, apply or dispose of pesticides. The Painted Pony will ensure a proper disposal procedures are followed.

5.9 Spill Prevention and Response

- Each vehicle used to transport pesticides to the field site will be equipped with a spill clean-up kit that contains a shovel, absorbent material (sawdust, sand, activated charcoal, vermiculite, kitty litter, etc.), a chemical neutralizer (lime, washing soda, chlorine bleach, etc.), and a waste receiving container.
- Spills will be cleaned up as quickly as possible. Efforts will be made to keep livestock and the public away from spills while it is being cleaned up.
- Use a barrier to contain the spill. Use the absorbent material in the spill response kit to soak up the chemical. Dampen pesticides that are in a powder form before attempting to clean it up.
- Label the waste material with the name, P.C.P., quantity, and treat as a hazardous material.
- Implement Painted Pony's Emergency Response plan if spill rates are excessive or there is a risk to the public or environment. Painted Pony has a comprehensive Corporate Emergency Response Plan which addresses emergency situations that may involve chemical releases. All operating personnel are trained in executing emergency response procedures. The Emergency Response Manual (ERP) is filed in BlackBox;
  
Location 1.07 Painted Pony Instructions and Extensive Documents
  Emergency Response Plan

- Follow Painted Pony’s Health, Safety and Environment (HSE) Manual which addresses safety and environmental practices associated with spill prevention and
control. These practices are outlined in the manual at:

Location  1.08  Painted Pony Instructions and Extensive Documents

6.0 ENVIRONMENTAL PROTECTION STRATEGIES (PESTICIDE USE)

6.1 General Strategies
Painted Pony will take precautions to protect the environment at all times. The following general considerations will be followed;

- Selective herbicides will be used whenever possible with non-selective herbicides reserved for site blackening.
- If the target vegetation is minimal then spot treatment using a low-pressure backpack sprayer or handgun will be used.
- Use of an ATV or truck mounted boom sprayer will be reserved for large patches of invasive weeds or for lease clearing only.
- Efforts will be made to minimize runoff or spray drift onto adjacent lands. Examples of this would be;
  - applying pesticides at low pressures and with nozzles that produce large droplets will minimize spray drift.
  - Avoid spraying if wind speeds are more than 8 km/h, unless spray booms are shrouded.
- Discontinue spraying completely if wind speed conditions exceed 16 km/h.
- All herbicides will be chosen based on their limited toxicity to animals, possibility of drift or leaching, and effectiveness against the targeted weed species. Less harmful herbicides will be chosen over more harmful herbicides due to the negatives associated with their use.
- When pesticides pose an unacceptable environmental risk, mechanical methods of control will be used instead.
- Key weather data will be recorded at the time of treatment such as temperature, humidity, precipitation, wind speed and direction.
- Chemical herbicides will not be applied if temperatures are less than 8°C or greater than 32°C.
- Painted Pony will check the location of community watersheds to be protected by checking the Community Watershed website of the BC Ministry of Environment.
- Road and pipeline rights of way that cross water sources will have a 10 m Pest Free Zone (PFZ) established. Additionally, a no treatment zone may be established at the discretion of the pesticide applicator next to the PFZ if necessary.
- A 30 m no treatment zone will be maintained around a water supply intake or well used for domestic or agricultural (e.g. water for livestock or crop irrigation).
- Standing water that may accumulate on well leases will be checked to ensure that run-off does not enter into fish bearing streams. Every precaution will be taken to avoid drift of pesticide into standing water.

- In these cases a PFZ is not necessary when using glyphosate as per Section 74 of the Integrated Pest Management Regulation.

6.2 Fish, Wildlife, and Riparian Habitat Protection

Painted Pony will maintain a 10 m PFZ along all water bodies, such as streams and classified wetlands. Additionally, a no treatment zone (NTZ) may be established next to the PFZ at the discretion of the pesticide applicator either prior to or at the time of application.

Standing water that accumulates on well leases that does not run-off into fish bearing streams or lowlands may not require a PFZ when using glyphosate as per Section 74 of the Integrated Pest Management Regulation.

All precautions will be followed as described in the herbicides’ Material Safety Data Sheet. Glyphosate will be the chemical utilized most often as it has minimal impact to wildlife habitat, soils and farmland. Once glyphosate is applied to vegetation the residues bind to the soil making the chemical inert, therefore if any wildlife browse on vegetation treated with this herbicide there is negligible impact on the animal. Additionally, most of the chemicals covered under this plan are not at risk of leaching into the soil and movement of the chemical in the soil water is minimal due to their chemical properties. As a precaution to safeguard grazing animals that may be in the area, spraying will not take place while livestock is grazing. In general, the mammalian toxicity of the chemicals covered under this plan is low; therefore, wildlife that may graze within the treatment areas will be minimally impacted. Please refer to Table 1 for a summary of toxicity levels and soil movement properties by chemical. Some registered pesticides may contain more than one of the active ingredients listed below.

6.3 Food Produced for Human Consumption

Painted Pony Energy Ltd. will identify areas outside of their facilities and rights of way where there is food intended for human consumption, such as farms and agricultural lands. Appropriate precautions will be exercised during vegetation control operations to avoid contaminating these areas, by providing increased buffer zones during herbicide applications, or using alternative, non-chemical methods of control.

Public notification of herbicide treatments is posted at the treatment area according to IPMR, Section 64. Painted Pony Energy Ltd. will also notify landowners or users who have previously requested notice.

Pesticides will not be sprayed on areas used for agricultural crop production without permission of the landowner.

In the vicinity of certified organic farms, the grower is responsible for maintaining an 8 m buffer zone between their crops and land that may have unintended contact with pesticides. During pre-treatment inspections, identified certified organic farms will be contacted to ensure they are aware of required buffer zones.
Table 3
Summary of Toxicity to Livestock and Wildlife
Movement in Soil of Specific Herbicides
(Herbicides included in PMP)

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Toxicity to Livestock and Wildlife</th>
<th>Movement in Soil</th>
</tr>
</thead>
</table>
| 2,4-Dichlorophenoxyacetic acid, amine formulation | - Do not allow lactating dairy animals to graze within 7 days of application  
- Do not harvest or cut treated forage crops within 30 days  
- Withdraw meat animals from treated fields at least 3 days prior to slaughter  
- Moderate acute mammalian toxicity: Acute oral LD50(rats) = 735-1646 mg/kg  
- Toxic to small mammals, birds, aquatic organisms and non terrestrial plants | - May leach in permeable soils.  
- Sprayers and assistants may only be exposed to a limited amount of herbicide per day. |
| Aminopyralid | - Moderate acute mammalian toxicity LD50(rats)=2000 mg/kg  
- Toxic to aquatic organisms. | - May leach in permeable soils. |
| Chlorsulfuron | - Use for areas adjacent to non-crop land  
- Slight acute mammalian toxicity: Acute oral LD50(rats) = 3053 mg/kg  
- Toxic to aquatic organisms | - Movement is restricted in fine textured soils, soil organic matter, and neutral to acidic conditions |
| Dicamba | - For use on non-crop areas such as road and pipeline rights of way, wasteland, etc.  
- Do not apply on active grazing lands  
- Low acute mammalian toxicity: Acute oral LD50(rats) = 3512 mg/kg  
- Low toxicity to fish and non-toxic to bees | - More subject to leaching in sandy soils than in clay soils  
- Half life is less than 30 days |
| Diuron | - Use for areas adjacent to non-crop land  
- Very low acute mammalian toxicity: Acute oral LD50(rats) = 3400 mg/kg  
- Non-toxic to birds and fish  
- Toxic to aquatic organisms | - Absorbs readily in soil and there is little movement by leaching |
| Glyphosate | - Do not graze or harvest treated areas until plants have turned brown and started to deteriorate.  
- Very low acute mammalian toxicity: Acute oral LD50(rats) = 4320 mg/kg  
- Non-toxic to birds, bees and fish | - Negligible leaching |
| Imazapyr | - Do not graze treated area after treatment  
- Low acute mammalian toxicity: Acute oral LD50(rats) = 5000 mg/kg  
- Non-toxic to birds, fish and bees | - Does not leach |
| Metsulfuron methyl | - Cattle may graze treated areas the day of treatment  
- Low acute mammalian toxicity: Acute oral LD50(rats) > 5000 mg/kg  
- Toxic to aquatic organisms | - Does not leach. |
| Picloram | - Do not allow dairy animals to graze within 6 weeks of application  
- Do not use treated clippings for mulch or compost or use manure from animals fed forage or grazed on treated areas around susceptible plants.  
- Low acute mammalian toxicity: Acute oral LD50(rats) > 5000 mg/kg  
- Moderately toxic to fish. | - Highly mobile in soil.  
- May persist in soil up to 5 years. |
| Triclopyr | - Keep lactating dairy animals from consuming treated vegetation for 14-60 days depending on rate.  
- Keep from haying or grazing with other animals for 14 days.  
- Low acute mammalian toxicity: Acute oral LD50(rats) = 3752 mg/kg  
- Highly toxic to fish and aquatic invertebrates and plants | - Low risk of leaching. |

Adapted from: Crop Protection 2017, Alberta Agriculture and Forestry
## 7.0 PESTICIDES USED

Table 4: Summary of Chemical Herbicides covered under these Plans.

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>PCP Number</th>
<th>Active Ingredient(s)</th>
<th>Targeted species</th>
<th>Suggested Application Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Round Up</td>
<td>27487</td>
<td>Glyphosate (present as potassium salt) n-(phosphonomethyl) glycine</td>
<td>All plant species. Non Selective</td>
<td>1.5 to 8.0 L/ha</td>
</tr>
<tr>
<td>Weather Max</td>
<td>28198</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Round Up</td>
<td>28486</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transorb HC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Roundup Ultra</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Vantage Plus</td>
<td>27615</td>
<td>Glyphosate (present as isopropylamine salt or ethanalamine salt) n-(phosphonomethyl) glycine</td>
<td>All plant species. Non Selective</td>
<td>1.69 to 9.0 L/ha</td>
</tr>
<tr>
<td>Max</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Karmex XP</td>
<td>21252</td>
<td>Diuron 3-(3,4-dichlorophenyl)-1,1-dimethylurea</td>
<td>Many annual and perennial species including grasses</td>
<td>11.25 kg/ha first treatment</td>
</tr>
<tr>
<td>6. Telar XP</td>
<td>30036</td>
<td>Chlorsulfuron 1-(2-chlorophenylsulfonyl)-3-(4-methoxy-6-methyl 1,3,5-triazin-2-y)urea</td>
<td>Many annual, biennial, and perennial weeds including Canada thistle</td>
<td>15 to 120 g/ha</td>
</tr>
<tr>
<td>7. Arsenal</td>
<td>23713</td>
<td>Imazapyr 2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-y) nicotinic acid</td>
<td>Most annual and perennial broadleaf weeds and grasses</td>
<td>3.0 L/ha</td>
</tr>
<tr>
<td>8. Vanquish</td>
<td>26980</td>
<td>Dicamba (present as acid, amine salt, ester, or sodium salt) 3,6-dichloro-o-anisic acid</td>
<td>Many broadleaf weeds</td>
<td>1.25 to 9.2 L/ha</td>
</tr>
<tr>
<td>9. Oracle</td>
<td>26722</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Tordon 22K</td>
<td>9005</td>
<td>Picloram (present as potassium salt) 4-amino-3,5,6-trichloropyridine-2-carboxylic acid</td>
<td>Many noxious weeds including: toadflax, knapweeds, leafy spurge</td>
<td>1.1 to 4.5 L/ha</td>
</tr>
<tr>
<td>11. Tordon 101</td>
<td>9007</td>
<td>Picloram (present as amine salts) 4-amino-3,5,6-trichloropyridine-2-carboxylic acid 2,4-D (present as amine salts: dimethylamine salt, diethanolamine salt, or other amine salts)</td>
<td>Most broadleaf weeds including brush and trees.</td>
<td>10 L/ha for RoW brush control 3.7 to 7.0 L/ha for weed control</td>
</tr>
<tr>
<td>12. Milestone</td>
<td>28517</td>
<td>Aminopyralid 4-amino-3,6-dichloro-2-pyridinecarboxylic acid</td>
<td>Large variety of broadleaf plants</td>
<td>0.25 to 0.5 L/ha 0.25 to 0.50 mL/L solution when spot treating</td>
</tr>
<tr>
<td>13. Clearview</td>
<td>29752</td>
<td>Aminopyralid 4-amino-3,6-dichloro-2-pyridinecarboxylic acid Methyl-2-(4-methoxy-6-methyl1,1,3,5-triazin-2-y)carbamoylsulfamoyl)benzoate</td>
<td>Large variety of broadleaf plants.</td>
<td>135 to 230 g/ha 1.35 to 2.3 g/L solution when spot treating</td>
</tr>
<tr>
<td>14. Escort</td>
<td>23005</td>
<td>Metsulfuron-methyl methyl-2-(4-methoxy-6-methyl1,1,3,5-triazin-2-y)carbamoylsulfamoyl)benzoate</td>
<td>Controls a large variety of broadleaf weeds / brush</td>
<td>20 to 30 g/ha (weeds) 100 to 150 g/ha for brush trees</td>
</tr>
<tr>
<td>15. 2,4-D Amine 600</td>
<td>14726</td>
<td>2,4-D (present as amine salts: dimethylamine salt, diethanolamine salt, or other amine salts)</td>
<td>A large variety of broadleaf weeds/brush</td>
<td>0.6–1.5 L/ha (weeds) 2.76 - 5.55 (brush)</td>
</tr>
<tr>
<td>16. Garlon Ultra</td>
<td>28434</td>
<td>Triclopyr, (present as butoxyethyl ester) 2-butoxyethyl [(3,5,6-trichloro-2-pyridinyl)oxy] acetate</td>
<td>A large variety of woody plants and some broadleaf weeds.</td>
<td>1 - 4 L/ha (weed control) 4 - 8 L/ha (brush control) 20 to 30% v/v solution for cut stump treatment</td>
</tr>
<tr>
<td>17. Gateway Adjuvant</td>
<td>31470</td>
<td>Mineral oil - paraffin base (adjuvants) Surfactant blend</td>
<td>N/A</td>
<td>0.2 to 1% v/v</td>
</tr>
</tbody>
</table>

From: Heath Canada’s Pest Management Regulatory Agency

Printed copies of this document are considered uncontrolled
The herbicides listed in Table 5 above may be utilized under this IPMP. They are to be used according to the methods and application equipment summarized below and in the label. Some herbicide products may have the identical active ingredients but a different trade name and a different PCP (pesticide control product) number by the federal Pest Management Regulatory Agency (PMRA). These herbicides are considered equivalent and can be used under this IPMP.

The following descriptions of each chemical are adapted from the pesticide labels and from *Crop Protection 2017*. More detailed information on application rates for specific vegetation is provided in this reference guide. Additionally, user guidelines and application rates for specific chemicals will be followed according to the manufacturer’s labels. Some registered pesticides may contain more than one of the active ingredients listed below. In these cases, application will follow the pesticides label or the more stringent usage restrictions.

1. **Glyphosate (Round-up Weather Max, Vantage)**

   **When it is used:**
   used for the purposes of vegetation control on road and pipeline rights of way and well leases. It is a non-selective, systemic herbicide used to control many annual and deep-rooted perennial weeds, including brush species in non-crop areas and spot control of perennial weeds in legumes and grasses. Glyphosate quickly becomes inactive when in contact with soil and has a low toxicity to birds, bees and fish, therefore it will be chosen first over other herbicides, particularly in sensitive areas (e.g. near waterbodies or riparian habitat).

   **How it is applied:**
   It should be applied when rain is not in the forecast, as rain within 2 hours of application will reduce overall effectiveness. Cool or cloudy days will also reduce effectiveness. A repeat treatment may be necessary after heavy rainfall immediately after application. Glyphosate can be used for spot or broadcast treatment. Reduced results may occur on plants treated after full bloom, therefore application should occur while plants are actively growing and as close to full leaf-out as possible.

   **Type of equipment:**
   Ground equipment only such as; backpack sprayer, boom equipment, handgun, high volume equipment, and wipers. It is important not to use galvanized steel or unlined steel tanks as a combustible gas may be formed while mixing. May be used in conjunction with 2.4-D in some cases.

2. **Diuron (Karmex)**

   **When it is used:**
   This chemical is readily absorbed by the roots and less so through the stem and foliage. Good for dugouts, drainage ditches, ponds and spot treatment for general weed control. Ideal for treatment of broadleaf and grassy weed species. Two applications per growing season may be applied with a maximum seasonal rate of 16.25 kg/ha.

   **How it is applied:**
   Applied mainly by spot treatment. May be applied anytime except when the ground is frozen. For best results use shortly before weed growth begins. Sufficient rainfall is necessary post-treatment to ensure the herbicide is activated and reaches the root zone. Do not use on sand, loamy sand, or gravelly soils where the organic matter is less than 1%. Do not apply to slopes as soil erosion may occur.
Type of equipment: Field sprayer, hand sprayer, backpack or sprinkling can. Be particularly careful during clean up of application equipment.

3. Chlorosulfuron (Telar XP)

When it is used: This chemical is absorbed through the roots and foliage. It is ideal for non-crop areas like well leases that require 100% suppression of all vegetation. Apply when weeds are small (< 10 cm tall) and actively growing.

How it is applied: Spot treatment or small areas of broadcast treatment. Select a spray volume that will ensure thorough coverage and uniform spray pattern. May not notice the effects of treatment for 1 to 3 weeks. Rainfall within 2 hours of application may reduce efficacy. Rainfall that moves the chemical 5 to 7 cm into the soil is required to facilitate absorption in the root zone.

Type of equipment: Ground equipment only such as backpack sprayer or boom sprayers. Can be mixed with 2,4-D.

4. Imazapyr (Arsenal)

When it is used: A non-selective herbicide that is absorbed through the roots and foliage. It is ideal for non-crop and non-graze areas like pipeline and road rights of way and well leases. Species controlled includes poplar, rose, some grasses and numerous broadleaf and vascular plants. Apply post-emergent to actively growing weeds and seedling woody species.

How it is applied: Spot treatment or small areas of broadcast treatment. Apply in sufficient water to wet all foliage during periods of active growth. Do not apply when there is a risk of runoff water flowing onto agricultural land. Maintain a distance from desirable trees at least twice the distance from the trunk to the dripline. Rainfall within 2 hours may decrease efficacy of treatment.

Type of equipment: Ground equipment such as handguns, vehicle mounted boom equipment, backpacks or pump sprayers. Be particularly careful during clean up of application equipment. Do not mix or store in unlined steel containers or spray tanks (except stainless steel).

5. Dicamba (Vanquish, Oracle)

When it is used: A systemic herbicide that is absorbed through roots and leaves. It is ideal for non-crop areas like road and pipeline rights of way and well leases. Can be used on a variety of broadleaf species, grasses and vascular plants. When used on coniferous and deciduous species, apply when leaves are fully expanded and stop applications at least 3 weeks prior to autumn colour change. Roadside vegetation control is suited for dicamba mixed with glyphosate for maximum control of invasive species. Apply to broadleaf vegetation while actively growing.

How it is applied: Spot or broadcast treatment. Thorough coverage and wetting foliage to the point of runoff is essential. Brush and trees over 2 m tall should be cut down and regrowth then sprayed. Avoid spraying if temperatures are higher than 30°F Celsius. Rainfall 4 hours after application will not reduce effectiveness.

Type of equipment: Ground equipment such as backpack sprayers and vehicle mounted boom equipment. Can be mixed with 2,4-D and/or Glyphosate.
6. **Picloram (Tordon 22K, Tordon 101)**

   **When it is used:** This chemical is absorbed through leaves and roots. Ideal for hard to control, persistent species. Used to control many broadleaved weeds, woody species, and conifers on established grasses. Also, chamomile, knapweed, thistle pasture sage, poverty weed, sow-thistle, field bindweed, leafy spurge, and toadflax. This is an extremely persistent and water-soluble chemical, therefore be very careful near water and desirable plants. Poor results may occur if there is heavy rainfall immediately after treatment on light sandy soil. May persist in soil for up to 5 years. Do not graze surrounding area at time of treatment.

   **How it is applied:** Spot treatment on persistent weed species. Use with caution around desirable trees and shrubs. Apply at full leaf-out, after foliage is well developed. Unsatisfactory results may occur if applied too late in the season.

   **Type of equipment:** Applied with boom, handgun or backpack. Can be mixed with 2,4-D.

7. **Aminopyralid (Milestone, Clearview)**

   **When it is used:** A systemic herbicide that is primarily absorbed through leaves. Secondary uptake through the roots may also occur. Highly active against broadleaf species it is ideal for treating invasive weeds in non-crop areas like road and pipeline rights of way and well leases. Application should occur when the plant is actively growing before bud stage or early flowering. Aminopyralid residues may be transported in the mulch or clippings from a treated area or manure from animals grazing treated areas. Allow three days of grazing in an untreated pasture before transporting livestock to an area with sensitive plants.

   **How it is applied:** Spot or broadcast treatment. Thorough coverage and wetting of the foliage is essential when using the lower rate recommended for spot treating. Avoid spraying if temperatures are higher than 30° C. Avoid application if heavy rains are forecast. Care must be taken to avoid spraying desirable broadleaf plants either when growing or dormant. Care must be taken to avoid spraying within the dripline of sensitive trees or around those plants with extensive lateral roots, shallow roots, or layering. Aminopyralid herbicides may only be applied once per growing season.

   **Type of equipment:** Ground equipment such as backpack sprayers and vehicle mounted boom equipment. Can be mixed with 2,4-D and/or Glyphosate.

8. **Metsulfuron methyl (Clearview, Escort)**

   **When it is used:** A systemic herbicide that is absorbed by the leaves and controls a variety of broadleaf weeds. Apply post emergence to annual weeds. For perennial or biennial weeds, it may be applied after post emergence up until buds appear. Apply when the vegetation is actively growing. Cattle may graze the treated areas on the day of treatment.

   **How it is applied:** Spot or broadcast treatment. Thorough coverage and wetting of the foliage is essential when using the lower rate recommended for spot treating or when treating brush. Add a recommended surfactant at 0.2-0.375% v/v. Care must be taken to avoid spraying desirable broadleaf plants. Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Avoid application during heavy rains. Do not apply during periods of dead calm. Metsulfuron methyl herbicides may only be applied once per growing season.
Type of equipment: Ground equipment such as backpack sprayers and vehicle mounted boom equipment. Can be mixed with 2,4-D.

9. **2,4-D Amine (2,4-D Amine 600, Tordon 101)**

When it is used: A non-selective herbicide that is absorbed through the leaves or roots. Used to control a variety of broadleaf vegetation, both by itself and when used as part of a tank mix. Spray when the plants are young and actively growing. When spot treating spray to thoroughly wet the foliage.

How it is applied: Spot or broadcast treatment when the plants are young and actively growing. Use lower rates when plants are young and higher rates when plants are older, stressed, or in heavy infestation. Do not spray during periods of high temperature (>27°C) or during periods of high wind as drift may occur. A rain free period of 4 hours is required.

Type of equipment: Ground equipment such as backpack sprayers and vehicle mounted boom equipment. Can be mixed with a variety of other herbicides, consult the labels for tank mix partners.

10. **Triclopyr (Garlon Ultra)**

When it is used: A selective herbicide that is absorbed through the leaves or roots. Used to control a variety of woody vegetation. Spray when the plants are young and actively growing. When single stem treating spray to thoroughly wet the foliage. May be mixed with oil to apply to cut stumps to prevent suckering and regrowth.

How it is applied: Spot or broadcast treatment when the broadleaf plants are young and actively growing. Foliar application may be high or low volume or broadcast. High volume application is done until the point of runoff, low volume until the plant is thoroughly wet but not to runoff. Use higher rates for difficult to control species. May only be applied once per growing season.

Type of equipment: Ground equipment such as backpack sprayers and vehicle mounted boom equipment. Can be mixed with a variety of other herbicides, consult the labels for tank mix partners. Respiratory protective equipment is recommended when applying.

11. **Adjuvants (Gateway)**

When it is used: Used to alter the characteristics of the mixed herbicide. Adjuvants increase the effectiveness of the treatment. Used when the label of the herbicide calls for an adjuvant. When listed apply at the rate given by the mix partner’s label.

How it is applied: Same as the herbicide it is mixed with

Type of equipment: Same as the herbicide it is mixed with

8.0 **PREPARATION, CONSULTATION / PESTICIDE USE NOTICE**

Forty-five days prior to completing the Pest Management Plan and submitting a pesticide use notice to the Ministry of Environment, Painted Pony will publish the first of 2 notices, which will be published in a 2-week period in the local newspaper. Painted Pony Energy’s local Production Team and Painted Pony representatives will undertake appropriate consultation with local First Nations as well as the general public and follow up on any questions or concerns that may arise. Concerns
and comments resulting from the consultation process will be resolved and documented. At this point the final Pest Management Plan will be completed with all consultation concerns and comments addressed and reflected in the plan. A pesticide use notice will then be submitted to the Ministry of Environment indicating completion of consultation and the final Pest Management Plan.

Once confirmation of receipt of pesticide use notice is received from the Ministry of Environment, Painted Pony will submit an annual notice of intended pesticide use to the Ministry of Environment at least 21 days prior to use of pesticides. Other parties will be notified as required for annual use of pesticides and signs will be posted as required. Records will be maintained and an annual summary of pesticide use will be submitted to the Ministry of Environment as required.

Painted Pony Energy Ltd. is committed to working with stakeholders and the public to ensure that environmentally sound and safe practices are achieved at all times. Through this consultation process stakeholders and the public have the opportunity to provide input into the Pest Management Plan.
APPENDIX A

GEOGRAPHICAL BOUNDARIES OF PROPOSED TREATMENT AREA
## APPENDIX B

### TREATMENT ASSESSMENT AND MONITORING FORM

#### 20__ PESTICIDE APPLICATION PROGRAM

**A. Site Assessment and Treatment**

<table>
<thead>
<tr>
<th>Date &amp; Time:</th>
<th>Client:</th>
<th>Plan \ Lic. #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Name:</td>
<td>Total Site Area: ha</td>
<td>Temp. &amp; Humidity:</td>
</tr>
<tr>
<td>Site Type:</td>
<td>Net Area Treated: ha</td>
<td>Sunny / Partial / Overcast</td>
</tr>
<tr>
<td>Location:</td>
<td>Applicator</td>
<td>Precipitation: Y / N:</td>
</tr>
<tr>
<td></td>
<td>Name &amp; #:</td>
<td>Wind Speed &amp; Direction:</td>
</tr>
</tbody>
</table>

**Vegetation Present:** (X) for noxious or invasive species, Use scientific name if known

| ( ) | ( ) | ( ) | ( ) | ( ) |
| ( ) | ( ) | ( ) | ( ) | ( ) |
| ( ) | ( ) | ( ) | ( ) | ( ) |

**Vegetation Growth Stage:**

<table>
<thead>
<tr>
<th>Infestation: L / M / H</th>
<th>Drift Risk: L / M / H</th>
</tr>
</thead>
</table>

**Treatment Recommendations:**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Treatment / Active Ingredient</th>
<th>Equipment</th>
<th>Application Rate /ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical / Mechanical</td>
<td>Vehicle / Hand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical / Mechanical</td>
<td>Vehicle / Hand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical / Mechanical</td>
<td>Vehicle / Hand</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Injury Threshold (100%, Noxious Only, etc.):**

**Pests Targeted:**

**Site Map (Show all drainages, structures, treated areas, and label PFZs and buffer zones):**

<table>
<thead>
<tr>
<th>GPS Coordinates</th>
<th>Latitude:</th>
<th>Longitude:</th>
<th>Site Comments</th>
</tr>
</thead>
</table>

**Noxious – XXXXXX, Treated areas - / / / / / / / / /, RFZs - \ / / / / / /, PFZs - #######, Wells and water sources – W, Photo location and direction \ -\ -**

**B. Treatment Details (X) for tank mixed herbicides**

<table>
<thead>
<tr>
<th>Method(s)</th>
<th>ATV/Hand/Mech.</th>
<th>Treatment / Herbicide Used</th>
<th>Reg. #</th>
<th>Rate (L or g/ha)</th>
<th>Quantity Used (L or g)</th>
<th>Applied Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td>( )</td>
<td>( )</td>
<td>/ha</td>
<td>ha</td>
<td>ha</td>
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<td>( )</td>
<td>/ha</td>
<td>ha</td>
<td>ha</td>
</tr>
</tbody>
</table>

**Date of Safe Re-entry:**

**Proposed Follow up inspection:**

---

Printed copies of this document are considered uncontrolled

Page 30 of 34
### C. Follow-Up and Monitoring

<table>
<thead>
<tr>
<th>Date and Time:</th>
<th>Applicator &amp; #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method (Field Visit, Well operator’s assessment, etc.):</td>
<td></td>
</tr>
<tr>
<td>Injury Threshold Achieved (%):</td>
<td>Impact on Non-Target Vegetation:</td>
</tr>
<tr>
<td>PFZ’s – Location, Area, etc.:</td>
<td>Additional Precautions:</td>
</tr>
<tr>
<td>Follow-up Actions (e.g. other treatment required?):</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T° &amp; Humidity:</th>
<th>Wind:</th>
<th>Precipitation: Y / N:</th>
<th>Sunny / Partial / Overcast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method(s)</td>
<td>Treatment / Herbicide Used</td>
<td>Reg. #</td>
<td>Rate</td>
</tr>
<tr>
<td>( )</td>
<td>/ha</td>
<td>ha</td>
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<tr>
<td>( )</td>
<td>/ha</td>
<td>ha</td>
<td></td>
</tr>
</tbody>
</table>

Date of Safe Re-Entry: Next Field Visit Proposed:

Site Map (Show changes to site and areas needing re-treatment):

Site Comments

Noxious – XXXXXX, Re-treated areas - ///////, RFZs - \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\n
### D Final Site inspection and Monitoring

<table>
<thead>
<tr>
<th>Date and Time:</th>
<th>Applicator &amp; #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method (Field Visit, Well operator’s assessment, etc.):</td>
<td></td>
</tr>
<tr>
<td>Injury Threshold Achieved (%):</td>
<td>Impact on Non-Target Vegetation:</td>
</tr>
<tr>
<td>PFZ’s – Location, Area, etc.:</td>
<td>Additional Precautions:</td>
</tr>
<tr>
<td>Follow-up Actions (e.g. other treatment required?):</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T° &amp; Humidity:</th>
<th>Wind:</th>
<th>Precipitation: Y / N:</th>
<th>Sunny / Partial / Overcast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method(s)</td>
<td>Treatment / Herbicide Used</td>
<td>Reg. #</td>
<td>Rate</td>
</tr>
<tr>
<td>( )</td>
<td>/ha</td>
<td>ha</td>
<td></td>
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<tr>
<td>( )</td>
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<td>ha</td>
<td></td>
</tr>
<tr>
<td>( )</td>
<td>/ha</td>
<td>ha</td>
<td></td>
</tr>
</tbody>
</table>

Date of safe Re-entry:
APPENDIX C

NOXIOUS WEED IDENTIFICATION FORM

<table>
<thead>
<tr>
<th>Area:</th>
<th>Location:</th>
<th>Operator Name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diagram of Infestation

Legend

- X = Scentless Chamomile
- O = Oxeye Daisy
- S = Other (Specify)

<table>
<thead>
<tr>
<th>AREA:</th>
<th>SIZE OF INFESTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wellsite</td>
<td>Few Plants</td>
</tr>
<tr>
<td>Lease</td>
<td>Field</td>
</tr>
<tr>
<td>Plant</td>
<td>Roadway</td>
</tr>
<tr>
<td>Battery</td>
<td>Ditch</td>
</tr>
<tr>
<td></td>
<td>Bush</td>
</tr>
<tr>
<td></td>
<td>Few Plants</td>
</tr>
<tr>
<td></td>
<td>Patchy</td>
</tr>
<tr>
<td></td>
<td>Many Plants</td>
</tr>
<tr>
<td></td>
<td>Total Infestation</td>
</tr>
</tbody>
</table>

COMMENTS: ______________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

Please ensure this form is turned into HSE/Integrity Foreman.
E-mail – garry.beamish@paintedpony.ca
APPENDIX D

Equipment Calibration

Calibration is the adjustment of equipment to make it deliver the correct amount of spray for a given area. Calibration of spray equipment ensures pesticides are not over-applied.

Nearly all pesticide application equipment (except ready-to-use aerosol cans or hand dusters) requires calibration. The procedure for calibration depends on the type of equipment being used. The main types of spray equipment being used are backpack units and UTV/ATV mounted boom sprayers.

A) Backpack Units

Operating pressure must be considered before calibration. Some sprayers are equipped with pressure gauges. Pressures should be about 100 to 170 kPa for herbicides and 275 to 310 kPa for insecticides. Sprayers with brass nozzles should be recalibrated after about 25 hours of use. Sprayers with stainless steel nozzles should be recalibrated after about 50 hours of use.

Procedure:

Step 1: Mark out an area of 5 m by 5 m (25 square metres). The area should have terrain and foliage similar to the area being treated.

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Mark out an area of 5 m by 5 m (25 square meters). The area should have terrain and foliage similar to the area being treated.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Step 2</th>
<th>Fill the sprayer with water and pump up the sprayer to the desired operating pressure.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Step 3</th>
<th>Spray a test area. Walk at steady pace and wet foliage as specified on the pesticide label.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Step 4</th>
<th>After the area is sprayed, release the sprayer pressure and measure the amount of water used.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Step 5</th>
<th>Determine the amount applied per hectare or acre using one of these formulas: Litres per hectare = litres used in test X 400 Gallons per acre = gallons used in test X 160</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Step 6</th>
<th>Make adjustments if the spray volume per unit area is not suitable. Adjust your walking speed to get the right rate of coverage.</th>
</tr>
</thead>
</table>

B) Boom Sprayers

The three main variables that determine spray volume: 1) nozzle output, 2) ground speed and 3) swath width. These variables are related as shown in the following formula:

\[
\text{Spray volume (L/ha)} = \frac{\text{nozzle output (L/min) x 600}}{\text{Speed (km/h) x swath width (m)}}
\]

Usually nozzle output or ground speed is adjusted to obtain the required spray volume. Some charts of nozzle specifications only list their output rates for a given pressure. In such a case it is necessary to calculate the output (L/min), which will give the desired spray volume (L/ha). Use the formula:

\[
\text{Output (L/min) = Spray volume (L/ha) x speed (km/h) x swath width (m) / 600}
\]
Step 1  Fill the spray tank about half full of water. Run the sprayer a few minutes to make sure the lines are full and all air has been expelled. Adjust the pressure regulator so the desired operating pressure is developed and observe the pattern of spray on the ground. Clean or replace any nozzle tips with an uneven spray pattern.

Step 2  Check nozzle output. With the sprayer stationary and operating at the proper pressure, collect spray from each nozzle for a specific time period (e.g. 1 min) in a measuring cup. Record the volume from each nozzle and calculate an average. Clean or replace any nozzle producing an output 5% above or below the average.

Step 3  Determine the spray volume (L/ha) applied to a test area.
   a) Measure and stake out a distance of 200 m or more in the treatment area or a similar area.
   b) Fill the sprayer tank with water and ensure supply lines and the boom are full. Record the water level on a measuring stick.
   c) Spray between the stakes in both directions at a selected speed and pressure. Turn the sprayer on at the first stake and off at the last stake in each direction. Note the transmission gear used as well as the throttle setting, rpm or speedometer reading (if accurate), so the same speed can be used during pesticide application.
   d) Carefully measure the amount of water required to refill the tank to the original mark on the measuring stick. This is the amount needed for spraying the total distance travelled (i.e. twice the distance between stakes).
   e) Calculate the spray volume per unit area with the following formula:

\[
\text{Spray volume (L/ha) = \frac{\text{water sprayed (L) \times 10000 m sq./ha}}{\text{Swath width (m) \times distance (m)}}}
\]

Step 4  Adjust spray volume applied accordingly. This can be made by one of three ways:

1  Changing pump pressure. Only minor adjustments in pressure should be made because adjustment will change the spray droplet size.

2  Changing nozzle tips.

3  Changing sprayer speed. Use the following formula:

\[
\text{Req'd speed (km/h) = present speed (km/h) \times present spray volume (L/ha) / desired spray volume (L/ha)}
\]

SAMPLE CALIBRATION RECORDS

<table>
<thead>
<tr>
<th>Calibration Records</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>5 meter x 5 meter test area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backpack only</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Adjustments Required</td>
<td>Yes</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Boom Sprayer test (area size m2)</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Applicator’s Initials</td>
<td></td>
<td></td>
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</tbody>
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