

## **SECTION 729 – ERADICATION OF INVASIVE SPECIES**

### **729.01      DESCRIPTION**

This work shall consist of eradicating numerous invasive species within the limits specified in the Contract Documents. Species to be removed include but are not limited [*Add project specific species*]

### **729.02      REFERENCE STANDARDS**

MNCPPC      Section 721 – Tree Preservation

### **729.03      DEFINITIONS**

Non-native invasive plants (exotic plants): They are species of plants that have been intentionally or unintentionally introduced into an area outside of their natural range. These species can significantly alter an ecosystem by changing the structure of the system, or by changing the underlying processes that create and maintain that ecosystem.

### **729.04      MATERIALS**

- A. The contractor shall furnish the appropriate hand and power tools required to perform vegetation removal operations. This can include chainsaws, brush-cutters, all associated safety equipment and incidentals necessary to complete the work. Additional tools, if needed, require approval by the M-NCPPC CM.
- B. A backpack sprayer with low pressure and coarse spray pattern shall be used to spray invasives.
- C. M-NCPPC has approved Rodeo, Accord (all formulations of glyphosate); Garlon 3a, Element 3A (all formulations of triclopyr amine); and Garlon 4 Ultra (triclopyr ester) herbicides for treating non-native invasive plants. Garlon 4 Ultra in JLB Oil or Hy-Grade I is approved for basal bark treatments and cut stump treatments. All herbicide formulations utilized will include a clearly visible, non-toxic, and biodegradable dye in order to facilitate determination of treated plants.
- D. If the contractor wishes to utilize another chemical or apply glyphosate or Garlon by any method other than mentioned above, the contractor shall submit a pesticide use proposal in writing to the point of contact at least two weeks prior to the treatment date. This proposal should include the product label, MSDS, and any other pertinent safety information. When a Pesticide Use Proposal is submitted, convincing evidence of the effectiveness, minimal non-target and environmental impacts, and safety of the proposed treatment in a habitat similar to that found in M-NCPPC shall accompany the proposal. After reviewing the documents submitted by the contractor, the M-NCPPC CM shall approve or disapprove, or require the submission of additional data that may be required to make a decision.

- E. If the product used does not already contain nonionic surfactant, a surfactant shall be used for all foliar spraying.

**729.05            SUBMITTALS**

- A. The contractor must submit to M-NCPPC a list with reference of three (3) projects of similar magnitude, where this type of work has been completed within the last five (5) years.
- B. The contractor is to submit name of individual performing pesticides application and provide current MD Department of Agriculture Certified Pesticide Applicator Number. The licensed applicator will be responsible for herbicide mixing, application and inventory, data collection, safety procedures, and crew supervision.
- C. A copy of label information from the glyphosate or triclopyr shall be submitted to the M-NCPPC Construction Manager prior to application or any other herbicide that is approved by M-NCPPC and applied by a contractor to control non-native invasive plant species.
- D. A schedule for eradication shall be provided to the M-NCPPC CM for approval. The schedule should be appropriate to allow for two periods of re-growth and follow-up glyphosate and/or triclopyr application after the initial mechanical removal stage.
- E. Qualifications certificate shall be submitted to the M-NCPPC CM for the contractor's arborist with current verification from the International Society of Arboriculture and the American Society of Consulting Arborists. Also, verification of membership in good standing in the National Arborist Association shall be submitted.
- F. A list of the vehicles, trailers and equipment anticipated for use shall be submitted to the M-NCPPC CM and include the make and model, year manufactured, tag number, and date of last inspection (if applicable). All vehicles shall be low impact.

**729.06            QUALITY ASSURANCE**

- A. The Sub-contractor for performing the work required under this Section shall be approved by M-NCPPC prior to execution of the contract. Invasive removal and related work shall be performed by a firm with a minimum of five (5) years' experience specializing in this type of work.
- B. The contractor shall possess all pesticide applicators' licenses, certificates of training and permits required by Montgomery County and the State of Maryland or an adjoining state where reciprocal authorizations are recognized and approved. Evidence of this documentation shall be presented to the point of contact at the pre-work conference. Use of chemicals in M-NCPPC lands shall strictly adhere to United States Environmental Protection Agency (EPA) regulations; manufacturers label directions, the State of Maryland and Montgomery County, Maryland pesticide laws (including COMCOR 33B.00.01.07 Invasive Species - Waterbody Environments, see Attachment B), and M-NCPPC requirements. The contractor shall provide to the point of contact a copy of the label and SDS sheet for each hazardous chemical used and keep a copy with the product.

- C. **Crew Supervisor:** The supervisor of work shall possess the following minimum qualifications: Knowledge and two (2) years' experience in field techniques of mechanical and chemical treatment of non-native invasive pest plants common to the eastern deciduous forest ecosystem. Ability to correctly identify the following non-native invasive plants: porcelain berry, Asiatic bittersweet, Japanese honeysuckle, Asiatic stiltgrass, bush honeysuckle, and mile-a-minute. Knowledge, ability, and willingness to handle herbicides in the course of non-native invasive plant control, a current State of Maryland applicators license (or reciprocity with an approved state) listing the appropriate application category, current CPR card, and ability to train applicators working under his/her license. The crew supervisor shall be on site for any pesticide applications.
- D. The contractor's arborist must have a current verification from the International Society of Arboriculture and the American Society of Consulting Arborists. Also, they shall have membership in good standing in the National Arborist Association.

**729.07            CONSTRUCTION**

- A. It shall be the responsibility of the Contractor to walk the limits of invasive eradication with the M-NCPPC CM and Forest Conservation Inspector (if required) before clearance operations have begun. As identified by M-NCPPC, the Contractor shall tag existing trees and shrubs to remain and develop a schedule and treatment means to be approved by the M-NCPPC CM.
- B. Protection of existing trees: Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark or excavated materials outside of the limits of disturbance. All requirements of Section 721 Tree Preservation must be observed.
- C. The contractor will notify the M-NCPPC CM, by close-of-business on the Wednesday the week before work is to be performed to comply with Montgomery County notification regulations. The M-NCPPC CM will then decide whether the type of work proposed can be safely accomplished in current weather conditions and provide web notification request of the M-NCPPC Montgomery Parks Public Affairs and Community Partnerships Division.
- D. Removal of Invasives:
  - 1. The method of herbicide application is currently restricted to direct plant application using the following methods: basal bark, cut stem, and foliar treatments. Specific best management practices for individual species should be followed and are provided (see Attachment A).
    - a. **Basal Bark Treatments:** Basal Bark Treatments involve the spraying or painting of woody stems with concentrated herbicides mixed with oil so that the chemical penetrates the outer bark. No cutting is required. Basal Bark Treatments are effective for controlling woody vines, shrubs, and trees. Treatments can be made any time of year, including the winter months, except when snow or water

prevents spraying the very bottom basal parts of the stem. Basal Bark Treatments will have reduced effectiveness at temperatures below 45°F and should be avoided if possible. Proper plant identification is crucial during the dormant season due to the absence of foliage. Apply herbicide in accordance with label instructions. To treat vegetation with a basal stem diameter of less than 3 inches, apply the specified herbicide and carrier, usually oil, mixture completely around the stem from the root crown to a height of 12 inches. Apply herbicide to the point of run-off. For larger diameter stems or those with thick bark, you may need to apply herbicide to a height of up to 24 inches. Basal bark treatment will not be used for non-native invasive vines on native tree species due to the risk of non-target kill.

- b. **Cut Stem Treatments:** Cut stem (or cut surface) treatments involve cutting woody stems and applying small volumes of concentrated herbicides directly to the exposed stem surface. They are useful for treating vines, shrubs, and trees. Two methods are most often used – “cut stump” or “cut stem,” and “hack and squirt.” The advantages of these methods are: 1) economy, 2) minimal probability of non-target damage, 3) minimal application time, and 4) they can be used in the winter as long as the ground is not frozen or snow-covered and air temperatures will be above 45°F during the middle of the day. Backpack sprayers or spray bottles are very effective for these methods. Cut plant stems horizontally at or near ground level; all cuts should be level, smooth, and free of debris. Immediately (within 20 minutes) apply the herbicide to the cut surface. Delayed application may reduce the effectiveness of treatment.
- c. **Foliar Treatments:** Foliar applications involve spraying the leaves of target species with a low concentration (dilute) mixture of herbicide in accordance with label instructions. Less commonly, herbicide can be painted onto leaves using foam paintbrushes or roller-type applicators which can be more time consuming but is less prone to non-target damage. Foliar treatments should be done during the active growing season, after full leaf expansion in the spring and before fall colors are visible. If foliar treatment is being used in combination with mechanical treatment, allow enough time to pass after mechanical treatment for good leaf growth; without leaves, the herbicide will not be absorbed. Foliar Spraying is most effective when temperatures are between 60 and 90°F, the air is humid, there is a light breeze (8 mph or less), and rain is not expected for 8 to 12 hours (these factors vary with type of herbicide and type of plant – follow label instructions). Where waterway contamination is not an issue, use a nonionic surfactant such as Timberland 90 or Aqua Aid with all foliar spray herbicides that do not contain surfactant in the formulation (e.g., Rodeo or Aqua Neat), unless otherwise specified by the manufacturer’s label. Surfactants increase the effectiveness of the herbicide by 1) reducing surface tension and ensuring complete foliar coverage, and 2) increasing the rate of absorption through the leaf cuticle. Equip a backpack sprayer, hand-operated pump sprayer, or spray bottle with a flat spray tip or adjustable cone nozzle. Apply herbicide to the leaves of target plants using a consistent motion. Cover foliage thoroughly, but not to the point of run-off. All recommended herbicides require complete foliar coverage to

be effective. Applications must be made while walking backward to reduce the risk of the herbicide wicking onto the applicator's clothing. Foliar treatments should not be done where leaves of target plants are above applicator's shoulder height.

2. In general, the woody invasives shall be cut down using the method of least disturbance such as a gas-powered hedge trimmer (e.g. Stihl Articulated 23-inch-Long Hedge Trimmer), rough-cut walk-behind mower, and/or chainsaw. Mowing shall occur between February 1st and April 15<sup>th</sup>.
3. Any tree removal shall be performed by using chainsaws and manually dropping sections of the tree to minimize damage to the surrounding vegetation.
4. No large equipment will be allowed, due to potential disturbance to wet soils and tree roots.
5. Invasive species including trees that are cut shall be removed from the site and legally disposed of unless directed otherwise by the M-NCPPC CM.

#### D. Second Treatment of Invasives:

1. After the time recommended in Attachment A during the time the plant is growing, during which time invasive stems have produced new leafy growth, the stand shall be sprayed with a water-soluble triclopyr product (varying %s) or a glyphosate product @2%. A backpack sprayer with low pressure and coarse spray pattern shall be used to reduce spray drift damage to trees and shrubs that are identified to remain. The air temperature shall be above 65°F to ensure absorption of herbicide. Spraying shall be done uniformly to wet the leaves and green stems but avoid runoff. The optimal period is when plants are actively growing, but before fruit formation. This application must be made on a windless day, in accordance with the manufacturer's instructions.
2. Spraying may occur within 25' of waterway per COMCOR 33B.00.01.07 Invasive Species - Waterbody Environments (Attachment B). It is not recommended over a more direct method such as painting the stump.

E. Replacement of damaged trees: A concerted effort shall be made by the Contractor to protect the trees adjacent to the limits of clearance. If trees outside the limits or clearance are damaged or have been flagged for preservation Section 721 Tree Preservation should be followed. Any added work that must be performed in this regard shall be at no cost to M-NCPPC.

F. Protection and restoration of existing improvements: Restore any improvements damaged by this work to their original condition, as acceptable to the M-NCPPC CM or other parties or authorities having jurisdiction.

#### G. Data Collection and Reporting.

1. The crew supervisor must also possess a Global Positioning System (GPS) capable of obtaining position information that is compatible with the Geographic Information Systems in M-NCPPC, which is using ArcGIS 10.5.1 Coordinates and area data will be obtained and recorded for each treatment site.
2. The ground crew supervisor is responsible for collecting the following daily data:
  - a. Treatment date
  - b. Treatment location (latitude/longitude, Maryland State Plane – NAD 83)
  - c. Treatment method (manual or herbicide)
  - d. Number of acres or number of trees and seedlings treated per site
  - e. Herbicide formulation and volume used
  - f. Names of applicators
  - g. Hours worked
  - h. Weather conditions during the work hours (cloud cover, temperature range, wind direction, wind speed).
3. Copies of the daily logs described above shall be delivered to the M-NCPPC CM monthly or upon request. In addition, the contractor shall provide to the Contracting Officer or COR any reports required by the State of Maryland, Montgomery County, Maryland, EPA, or other regulatory agency.

H. Completion of this project will be successful if/when at least 90 percent mortality is achieved for known non-native invasive plants with less than 10 percent mortality of non-target plants.

## **729.08            MEASUREMENT AND PAYMENT**

Payment shall be full compensation for all material, labor, equipment, tools, permits and licenses, and incidental items necessary to complete this work. Payment shall be made on a unit price or lump sum basis as stated in the Bid Form.

## Attachment A. Best Management Practices for Control of Non-Native Invasives

### *Ampelopsis brevipedunculata* (Porcelainberry) VINE

**Helpful Hints:** A non-native grape vine that kills trees by producing heavy, smothering masses of stems and leaves. Unlike native grape vines, which should not be removed, this plant produces multicolored fruits (in late summer-early fall) that stand upright in flat clusters. Vines may not produce fruit in the first year. Native grape vine fruits hang down in long clusters.



**Mechanical:** Bush-hog or mow vines in open, accessible areas. Power hedge trimmers, power saws, handsaws, loppers, and hand pruners can also be used. Don't pull vines out of trees. Cut the vine at ground level and as high as you can reach (cutting a "window.") Portions of vines that stay rooted will remain alive and must later be treated with herbicide, pulled out, or cut repeatedly until no re-growth occurs. Roots are difficult to remove.

**Chemical:** Triclopyr products such as Garlon are most effective with this plant.

#### Basal Bark Treatment

Use triclopyr ester @ 20% (e.g., Garlon 4 in oil carrier—follow label instructions). Ready-to-use triclopyr products such as Pathfinder II are also effective and highly recommended. Defoliate stem first. Application can be made in winter if stems are not wet or snow-covered and temperatures will be above freezing during the middle of the day.

#### Cut Stem Treatment

Use triclopyr salt @ 25% (e.g., Garlon 3A in water) OR triclopyr ester @ 20% (e.g., Garlon 4 in oil carrier—follow label instructions). Can use lower concentration (as low as 8%) but must follow up with a foliar treatment two weeks post application. Ready-to-use triclopyr products such as Pathfinder II are also effective and highly recommended. Take care if using triclopyr in oil near water.

#### Foliar Spray

DO NOT USE this method for foliage on climbing vines unless they are below applicator's shoulder height. Wait for leaf regrowth if using in combination with mechanical treatment. Most effective late in the season to avoid non-target plants. May increase effectiveness with follow-up spray two weeks after initial treatment. Effective for the recumbent (i.e., low growing) form of this plant. Use triclopyr salt @ 2% (e.g., Garlon 3A in water) with a non-ionic surfactant at 0.5%. Always use the lowest concentration that proves effective. Add approved blue marker dye.

**Helpful Hints:** A climbing, twisting vine that kills trees by girdling. Vines can grow to be several inches in diameter. The leaves are glossy green and egg-shaped, with pointed tips. The small, berry-like fruits appear in early fall—first appearing yellow and then breaking open to reveal red-orange seed cases.



**Mechanical:** Bush-hog or mow vines in open, accessible areas. Power hedge trimmers, power saws, handsaws, loppers, and hand pruners can also be used. Don't pull vines out of trees. Cut the vine at ground level and as high as you can reach (cutting a "window.") Portions of vines that stay rooted will remain alive and must later be treated with herbicide, pulled out, or cut repeatedly until no re-growth occurs. Roots are difficult to remove. Brush hogs or mowers are useful in large areas; chainsaws may be required for large stems.

**Chemical:** Vigorous resprouter, plan on herbicide use at same time as mechanical control for greatest efficiency. Triclopyr products such as Garlon are most effective with this plant. Do not use chemicals below 45°F.

Basal Bark Treatment

Use triclopyr ester @ 20% (e.g., Garlon 4 in oil carrier—follow label instructions). Ready-to-use triclopyr products such as Pathfinder II are also effective and highly recommended. Defoliate stem first. Application can be made in winter if stems are not wet or snow-covered and temperatures will be above freezing during the middle of the day.

Cut Stem Treatment

Use triclopyr salt @ 25% (e.g., Garlon 3A in water) OR triclopyr ester @ 20% (e.g., Garlon 4 in oil carrier—follow label instructions). Ready-to-use triclopyr products such as Pathfinder II are also effective and highly recommended. Take care if using triclopyr in oil near water.

Foliar Spray

DO NOT USE this method for foliage on climbing vines unless they are below applicator's shoulder height. Wait for leaf regrowth if using in combination with mechanical treatment. May be used for the recumbent (i.e., low growing) form of this plant. Use triclopyr salt @ 2% (e.g., Garlon 3A in water) with a non-ionic surfactant at 0.5%. Always use the lowest concentration that proves effective. Add approved blue marker dye.

**Helpful Hints:** A perennial vine—semi-evergreen in our area—that climbs by twisting around trunks and limbs of shrubs and small trees. In sunny edge areas, its smothering growth can climb 15-20 feet. Mature leaves are oblong or oval and occur in pairs along the stem. Immature leaves can be finely divided and oak-like. Stems and leaves often have fine, soft hairs. The tube-shaped flowers occur from April through the summer. They are white or pink and turn yellow with age. Small black fruits occur in the fall.



**Mechanical:** Bush-hog Japanese honeysuckle in accessible areas multiple times in a growing season and/or treat re-sprouting foliage with herbicide. Mowing or cutting with power or hand tools, without follow up herbicide treatment, is effective only if repeated often. Don't pull vines out of trees. Cut the vine at ground level and as high as you can reach (cutting a "window.") Portions of vines that stay rooted will remain alive and must later be treated with herbicide, pulled out, or cut repeatedly until no re-growth occurs.

**Chemical:** Glyphosate (e.g., Roundup) is the most effective herbicide for this plant.

Cut Stem Treatment

Use glyphosate @ 25% (e. g., Roundup Pro) on cut surfaces *any time of the year*. Temperatures below 45°F will impede absorption of herbicides through plant tissues.

Foliar Spray

Use glyphosate @ 2% (e.g., Roundup Pro, or Rodeo with a 0.5% surfactant if near water). Always use the lowest concentration that proves effective. Japanese honeysuckle may stay green long after other plants have lost their leaves. Treatment during mild (>45°F) fall or winter weather will minimize herbicide impact on desirable plant species. Add approved blue marker dye.

***Microstegium vimineum* (Japanese stilt grass)**

**HERB (Grass)**

**Helpful Hints:** A shade-tolerant annual grass that is common along roads and trails, and in moist or floodplain areas of forests. Plants look like a delicate, miniature bamboo and lance-shaped leaves—1 to 3 inches long—have a silvery stripe on the upper surface. Spreads vigorously by roots and seeds; seeds can remain viable in soil for many years.



**Mechanical:** Target maturing plants in summer where large stands are accessible to mowers or power trimmers. The best time is late June through August, before plants go to seed. If treatment is too early, there may be a second germination cycle, so revisit the site often to

ensure no seed is produced. Plant dies after first frost. Inaccessible to equipment areas can be hand pulled. Cutting or mowing earlier in the summer—when the grass is shorter and less dense—is recommended. Cutting should be repeated at the same sites for at least five years due to the seed-banking potential of this annual grass. The flame weeding methodology has shown great promise for stiltgrass control. Again, target late summer before the plants have time to set seed. Be especially careful about humidity, as the grass dries out quickly under the flame weeder.

**Chemical:** Where monocultures exist without intermingled desired vegetation, extensive infestations can be treated with glyphosate (triclopyr will not kill grasses).

#### Foliar Spray

NRS staff has used low concentrations of glyphosate to kill stilt grass with minimal damage to non-target perennials. Use Roundup-type products @ 1% for non-wetland sites. If spraying in late summer, use a 1.5% mix for better results on mature plants. In wetlands or near water—or if you will encounter both wet and dry sites while spraying, use products such as Rodeo or Aqua Neat at 1-1.5%, with a non-ionic surfactant @ 0.5%. Use a blue marker dye to ensure that patches are sprayed only one time. Follow up treatments 1-2 weeks after initial spraying will ensure better control.

### **Persicaria perfoliata (Mile-a-minute or devil's tearthumb) VINE**

**Helpful Hints:** A fast-growing, but weak-stemmed annual vine that scrambles over shrubs and other vegetation. It can also climb 15-20 feet if it has sufficient support and growing conditions. It kills native plants by blocking photosynthesis. The reddish stems and leaf blades are armed with downward-pointing barbs. The leaves are light green and are shaped like an equal-sided triangle. The metallic blue fruits appear in mid- to late summer and new fruits are formed until the plant dies and turns brown in the fall.



**Mechanical:** Seedlings and vines can easily be pulled if thick gloves and sturdy clothing are worn. Manual removal can be done throughout the summer; June through July is optimal before the fruits mature. The vines can be “reeled in” and balled up in piles that can be left to dehydrate for several days before disposal. A variety of leaf and level rakes can be used. Treatment sites should be rechecked for resprouts. Where practical, mow or trim mile-a-minute to prevent the plants from flowering and fruiting. The flame weeder may be effective for this species if used in late May and June (this is still being tested).

**Chemical:** Use glyphosate with a surfactant, to ensure adherence to the waxy leaf coverings.

#### Foliar Applications

Use glyphosate products, such as Roundup Pro—or Rodeo or Aqua Neat in wet areas—@ 2% or less. If mile-a-minute is your only target, concentrations as low as 1% should work. Always use the lowest concentration that proves effective. Add a surfactant at 0.5% to aquatic herbicides. Triclopyr products—e.g., Garlon 3A @ 1 to 2%—will also kill mile-a-minute. Impact on desirable plants is virtually unavoidable. Add approved blue marker dye.

**Biocontrol:** Mile a minute weevil has been released in Montgomery County in 2010 and has been seen at most mile-a-minute populations across parkland. The weevil can delay fruit production until late August or mid-September. One school of thought avoids treatment after August in populations of mile-a-minute that are heavily infested with weevil.



**Lonicera spp. (Exotic bush honeysuckles)**

**SHRUB**

**Helpful Hints:** Long used as a landscaping plant, bush honeysuckles have escaped and now form thickets along stream banks, in edge areas, and in open or shaded woods. If the honeysuckle has formed a monoculture, care should be taken that the landscape is not denuded. Phasing in restoration during eradication may be required. Stems have rough vertical ridges and are hollow. Opposite leaves stay green into late fall and begin to show new growth in very early spring. They put out large clusters of red berries from mid-summer to early fall, depending on species.



**Mechanical:** Pulling seedlings or small plants can be useful for light infestations.

- In shaded woodlands, where the plants are somewhat less resilient, repeated cutting to the ground during the growing season may result in high mortality.
- In open areas, if accessible can mow up to six times in one growing season for two seasons.
- Cutting must be repeated at least once during the year to prevent regeneration of stands that are denser than the original.

**Chemical:** Both *glyphosate* and *triclopyr* products are effective for this plant. Where possible, initiate *control prior to seed dispersal (late summer to early fall)*.

**Cut Stem Treatment**

- Cut all stems to ground level and apply glyphosate @ 20% (e.g. Roundup Pro), this can be done year-round as long as temperatures are above 45°F.
- M-NCPPC recommends the ready-to-use triclopyr product, Pathfinder II, or approved equal.

**Foliar Spray**

- Since bush honeysuckles have single or clustered central stems and can be easily treated using the cut stem method foliar applications are not permitted.

**Attachment B**

COMCOR 33B-14 Invasive Species – Public Notice and Waterbody Environments

Montgomery Parks Required Public Notice of Pesticide Use:

According to COMCOR - Code of Montgomery County Regulations Sec. 33B-14 and state MDA laws.

	Asset, Area or Pest Treated	Pre-notification		Yellow Sign at time of application+ 48 hr
		Website	White sign for pre-notification	
Athletic Fields	Athletic field turf	Yes	Yes	Yes
	Emergency athletic field	ASAP	ASAP	Yes
Turfgrass	Insects, weeds, diseases	Yes	Yes	Yes
Amenities, paved surfaces	Weeds in sidewalks, cracks, curbs	Yes	No	Yes
	Train tracks	Yes	No	Yes
	Courts	Yes	No	Yes
Water-related***	Weeds within 25' of a stream, creek or river	Yes	Yes	Yes
Trails Forests Trees	Invasive weeds trails	Yes	No	Yes
	Landscape tree & shrub treatments	Yes	No	Yes
	Tree mulch rings	Yes	No	Yes
Landscape	Insects, weeds, diseases in landscape bed plantings	Yes	No	Yes
Wasps & hornets	Stinging insects all locations (emergency)	No	No	Yes
	Stinging insects all locations (planned)	Yes		
Contracts	Contractor/Lease work	Follow the same notifications as Parks		

\*\*\*Target weed must be on 33B.00.01.07 Invasive Species - Waterbody Environments approved list

A waterbody environment is any area of land managed by M-NCPPC within 25 feet of an above-ground river, stream or creek or area subject to the ebb and flow of the tide. A person may apply a registered pesticide to control these species within 25 feet of an above-ground river, stream or creek or area subject to the ebb and flow of the tide. Registered pesticides may only be applied to these species when they are present.

<b>Scientific Name</b>	<b>Common Name</b>
<i>Aegopodium podagraria</i>	Bishop Weed; Goutweed
<i>Ailanthus altissima</i>	Tree of Heaven
<i>Ampelopsis brevipedunculata</i>	Porcelain Berry
<i>Berberis thunbergii</i>	Japanese Barberry
<i>Celastrus orbiculatus</i>	Oriental Bittersweet
<i>Elaeagnus umbellata</i>	Autumn Olive
<i>Euonymus fortunei</i>	Winter Creeper
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Ficaria verna</i>	Lesser Celandine
<i>Hedera helix</i>	English Ivy
<i>Houttuynia cordata</i>	Chameleon Plant
<i>Humulus japonicus</i>	Japanese Hops
<i>Iris pseudacorus</i>	Yellow Flag Iris
<i>Lonicera japonica</i>	Japanese Honeysuckle
<i>Lonicera maackii</i>	Amur Honeysuckle
<i>Lonicera morrowi</i>	Morrow's Honeysuckle
<i>Lonicera standishii</i>	Standish's Honeysuckle
<i>Lonicera tatarica</i>	Tatarian Honeysuckle
<i>Microstegium vimineum</i>	Japanese Stiltgrass
<i>Oplismenus undulatifolius</i>	Wavyleaf Basketgrass
<i>Pennisetum alopecuroides</i>	Fountain Grass
<i>Persicaria perfoliata</i>	Mile-a-Minute
<i>Phyllostachys</i> spp.	Running Bamboo
<i>Pyrus calleryana</i> 'Bradford'	Callery/Bradford Pear
<i>Rosa multiflora</i>	Multiflora Rose
<i>Wisteria sinensis</i>	Chinese Wisteria
<i>Wisteria floribunda</i>	Japanese Wisteria