Introduction to the British Columbia

Japanese Beetle Response

2025 Edition

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Welcome to the 2025 Japanese beetle Response in British Columbia

2025 marked the eighth year of the ongoing, collaborative response to Japanese beetle (*Popillia japonica*) in the Province of British Columbia.

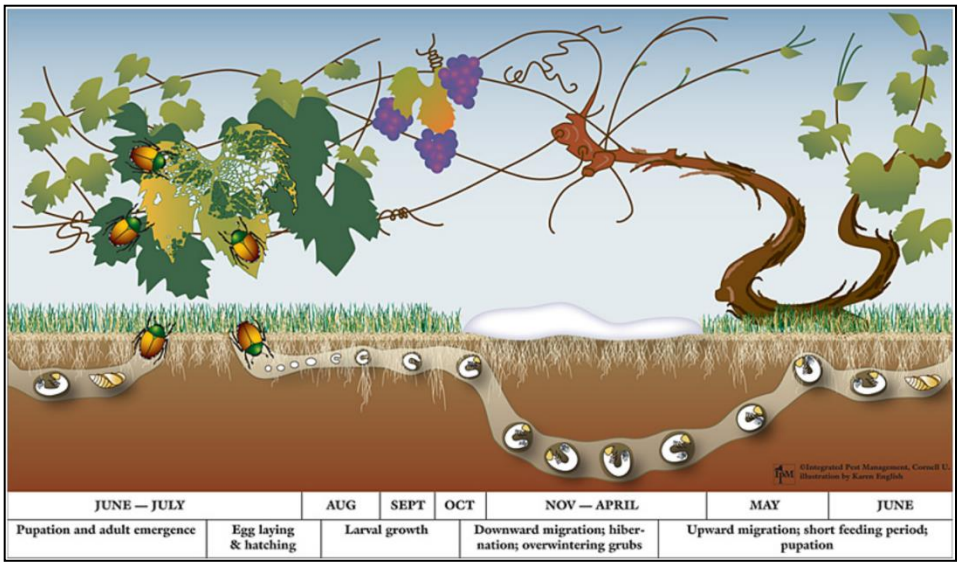
This introductory package will provide you background information on:

- what Japanese beetle is;
- why it is a pest of concern;
- the history and progression of the Japanese beetle response in BC, including a response timeline and an introduction to the current, active members of the response;
- an introduction to Japanese beetle surveillance, including a summary of the Canadian Food Inspection Agency (CFIA) 2025 surveillance results;
- an overview of the current regulatory controls;
- an overview of treatment activities to-date; and,
- an overview of outreach activities to-date, including resource links.

This information plays a critical role in informing your understanding about the Japanese beetle Response as we head into the ninth year of the response. We value your opinion and feedback as we collectively discuss the path forward and make recommendations for the Japanese beetle Response in BC in 2026 and beyond.

What is Japanese beetle (*Popillia japonica*)?

Popillia japonica is a **regulated and quarantine** pest in Canada. It is commonly known as "Japanese beetle" and referred to as "JB". It originated on the main islands of Japan and was introduced to North America in 1916. Japanese beetle is now widespread in eastern North America.



Life Cycle

There are 4 life stages to this pest – egg, larva, pupa, and adult. It is thought to produce one generation per year. A female beetle deposits up to **60 eggs** in soil within **2-5 cm of the soil surface**. Eggs **hatch** in about **two weeks.**

Larva (grub)

Larvae begin to **feed on grass roots** through the end of **summer and fall** and begin their downward migration into the soil. **Larvae** spend the **winter from 5 to 30 cm below** the surface and migrate upwards to **resume feeding in the spring.** As a grub, the Japanese beetle looks and causes similar damage as the European Chafer beetle. Once **larvae** are full grown, **they pupate in the soil in May or June** for about **two weeks** before they emerge as **adult beetles**.

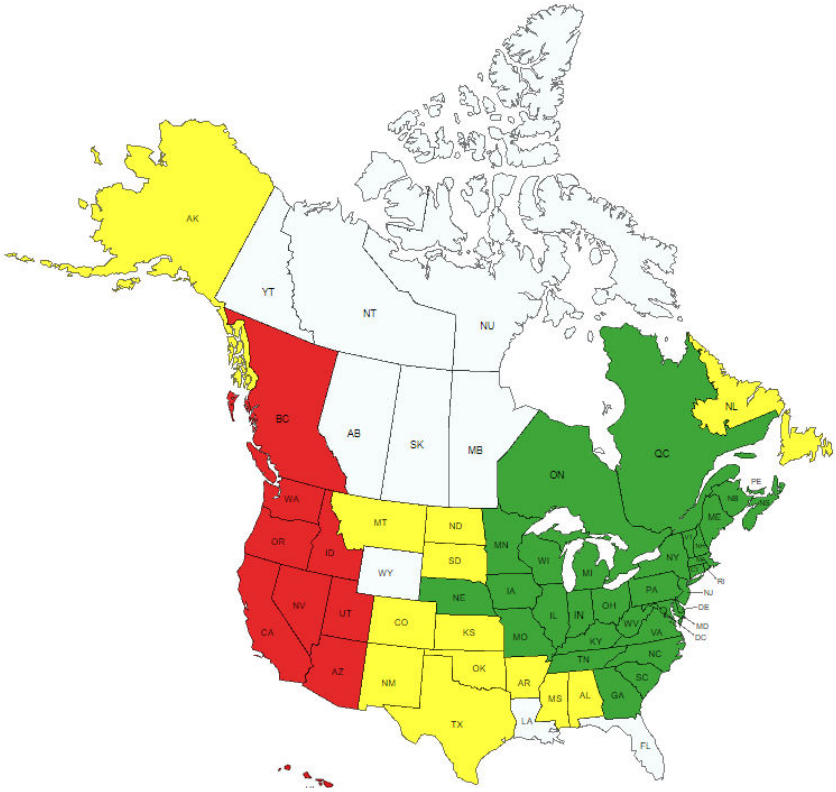
Adults emerge from the soil in summer (June/July) and are **active for 6-8 weeks, mating and feeding** on fruit, flowers, and foliage of a variety of plants. In regulated areas, this is known as the "adult beetle flight period" and occurs from June 15 to October 15 annually.

Adult

The feeding damage caused by the Japanese beetle as an adult, in addition to the damage caused while it feeds as a grub, is what makes it so much more of a threat than the commonly present turf pest, European chafer beetle (*Amphimallon majale*; formerly classified as *Rhizotrogus majalis*).

Japanese beetle Regulatory Status in North America

There are different categories to identify the levels of Japanese beetle infestation across North America (*see map**).



North America's Japanese beetle Regulatory Status Categories:

- 1 - Uninfested/Quarantine Pest [Pest Free Area]
- 2 - Uninfested or Partially Infested [Area of Low Pest Prevalence]
- 3 - Partially or Generally Infested
- 4 - Not Known to be Infested/Unlikely To Become Established

*As of May 13, 2022

Eastern USA and Eastern Canada – are partially or generally infested.

States along the West Coast of North America (California, Oregon, and Washington) are considered pest-free. Oregon & Idaho and other states in the Pacific Northwest are also battling introductions of JB.

BC is the only province in Canada that is considered a **Japanese beetle pest-free area!**

Why is Japanese beetle a pest of concern?

Given that females can lay up to 60 eggs at one time, the population can grow quickly in a short time frame.

Japanese beetle causes damage during **two phases** of its life cycle; the larval and adult stages. Larvae feed on a wide variety of **plant roots**, reducing the plant's intake of water and nutrients. In this stage of development, they like to eat grass, ornamentals, shrubs, garden crops.

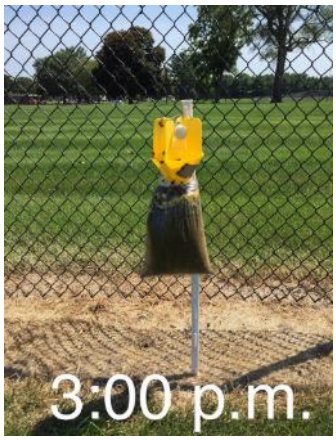
When the larvae feed on grass roots, it results in patches of brown dead grass which may feel spongy and can be easily pulled away.

The adults are **skeletonizers** – they eat the leaf tissue and leave the veins behind. Attacked **leaves look like lace** that soon withers and dies. They will often attack flower buds and fruit. JB adults attack **over 300 plant species**, including common landscape and food plants, including ornamentals, nursery stock, tree fruit, small fruit.

A favourite appears to be *Persicaria amplexicollis*. Adult beetles were found feeding on persicaria plants in David Lam Park. Other favourites include elm, maple, roses, grapevines, fruit trees, including peach, apple, apricot, cherry, and plum trees; blueberries, raspberries, blackberries; and other small fruit.

The potential consequences of Japanese beetle establishment in BC include severe damage to nurseries, farms, lawns, landscapes, golf courses, gardens and parks, and harm BC's horticultural and agricultural sectors. Establishment may result in the loss of BC's Japanese beetle pest-free status, which would require industry to set up and maintain JB certification programs increasing both the cost to do business and raising the price of products. The spread of this beetle will result in increased costs to municipalities, industry and the public due to losses and JB control measures.

The following photos show the progression of JB trap catches over a few hours in an infested area.



The history and progression of the Japanese beetle response in BC

Japanese beetle was **first detected** by the CFIA in **David Lam Park** in Vancouver's **False Creek area** in **July of 2017** during routine annual surveillance activities. This was the first time Japanese beetle was detected in the Province of BC.

It is difficult to pinpoint exactly how the beetles arrived in British Columbia. Adult beetles are active flyers and unintentional human assistance is known to occur. Beetles can hitch a ride on clothing, vehicles, or other methods, and can be transferred through soil and plant movements.

In 2018, it was determined that no one organization held the key to eradication success and as a result the Japanese beetle Response was formed.

By federal Ministerial Order, a regulated area was created in the City of Vancouver to restrict the movement of plants and soil to prevent JB spread. The Province of BC issued treatment orders for all public lands within the regulated area. As of 2023, a federal Ministerial Order is no longer required to implement a Japanese beetle regulated area in BC. Under the authority of Canada's *Plant Protection Act* and *Regulations*, the Canadian Food Inspection Agency (CFIA) implements regulatory controls to prevent unintentional human-assisted spread of Japanese beetle into pest-free, unregulated areas.

Members of the response include the **federal, provincial, and municipal governments**, along with **industry and other stakeholders.** These organizations have come together to form a **Japanese Beetle Steering Committee.** The role of the Japanese beetle Steering Committee is to oversee the response activities, bringing together active members of the response for regular discussion and review of response activities. When needed, the Steering Committee also makes recommendations for future actions by its members and its sub-committees.

There are three primary sub-committees: **Treatment, Movement Controls** and **Communications**. The committees meet regularly through out the year to provide valuable information about Japanese beetles to each other, as well as, to industry and the public on their respective websites.

The **Treatment Sub-committee** develops the treatment plan, including a timeline, locations, and roles, by considering approaches needed for public and private lands. This sub-committee ensures there is documentation and mapping of all treatment areas (including private properties). Members review treatment efficacy and methodology, and make recommendations for Province, impacted municipalities and contractors who apply the product.

Members of the **Movement Control Sub-committee** provide support for regulations that restrict the movement of regulated articles from regulated areas to reduce the unintentional human-assisted movement spread of Japanese beetle.

The **Communications Sub-committee** leads coordinated communications efforts to ensure that industry, members of the public, and users of public spaces are informed about regulated areas, movement restrictions and eradication efforts. This subcommittee supports the activities of the Steering and other sub-committees, determining common messaging and developing products and tools related to the Japanese beetle response.

The Japanese beetle Steering Committee and its sub-committees are advised by members of the scientific community who sit on the **British Columbia Plant Protection Advisory Council's Japanese beetle Technical Advisory Committee** or "BCPPAC JB TAC".

2026 marks the ninth year of the Japanese beetle Response in British Columbia.

RESPONSE TIMELINE:

2017: Japanese beetle was detected by the CFIA for the first time in BC during routine surveillance.

2018: The regulated area in Vancouver was established through a federal *Ministerial Order*. The JB Steering and Sub-Committees were formed. The Province of BC issued *Treatment Orders* to the City of Vancouver.

2019: Several beetles were found west of the regulated area during 2018 which led to a revised federal *Ministerial Order* in 2019 which included Stanley Park and Kits Point. First indication of the efficacy of treatment – 8274 to 1157 beetles within the Vancouver regulated area.

2020: The total number of beetles detected included two JB found outside of the regulated area: one found in Vancouver; one found in Port Coquitlam.

2021: 79 Japanese beetles were detected in BC. Of these detections, 29 were detected inside Vancouver's previous JB regulated area (RA); the remaining 50 beetles were detected outside of the previous RA, within the cities of Vancouver, Burnaby, and Port Coquitlam. This led to the expansion of the Vancouver regulated area and establishment of a regulated are in the City of Burnaby.

2022: There was a slight increase in the number of Japanese beetle detections in areas outside of the Burnaby and Vancouver regulated areas. The City of Vancouver continued to see a decline in the number of beetles detected (28 beetles in the regulated area; one beetle outside of the regulated area). 35 beetles were caught in the City of Burnaby (two caught outside of the regulated area). One beetle was caught in the City of Richmond and 126 beetles were caught in the City of Port Coquitlam. A total of 201 Japanese beetles were detected in BC.

2023: Federal requirements were revised based on data collected during the first five years of the Japanese beetle response in BC. As a result, the Burnaby and Vancouver regulated areas were expanded and a regulated area was created in the Cities of Coquitlam and Port Coquitlam. The federal *Ministerial Order* was revoked to focus efforts on the highest risk articles – plants with soil or soil-related matter attached.

2024: Japanese beetles are detected in the Cities of Burnaby and Port Coquitlam. Japanese beetle is detected for the first time in the Cities of Abbotsford (1) and Kamloops (11). This is the first year of 0 beetle detections in the City of Vancouver. Japanese beetle regulated articles were further defined as plants with soil, soil-related matter and/or growing media attached.

2025: Japanese beetles are detected in the Cities of Abbotsford, Burnaby, Kamloops, Port Coquitlam and Vancouver. Japanese beetle is detected for the first time in the City of Coquitlam (1).

Roles and Responsibilities

Each member of the Japanese beetle Response has a different role which they are responsible for operationally and financially.

The Canadian Food Inspection Agency (CFIA)

The CFIA is the regulatory body that enforces the *Plant Protection Act, Regulations,* and the related requirements. The CFIA's role is to conduct surveys to find out where the beetles are located and determine if treatments are effective. The CFIA also implements movement restrictions for plants with soil, soil-related matter or growing media attached originating from the regulated areas in BC.

The British Columbia Ministry of Agriculture and Food (BC MAF or "the Province")

The Province is leading the coordinated effort to eradicate Japanese beetle from BC in cooperation with the response members. The Province issues treatment orders on public and private lands, as required, and coordinates treatment planning.

The Cities of Abbotsford, Burnaby, Kamloops, Port Coquitlam ("PoCo"), Richmond and Vancouver

Municipalities involved with the response have had detections of Japanese beetle within their boundaries. Each city is responsible for finalizing and implementing a treatment program of public lands within their city, in consultation with the Province, the CFIA and industry contractors, as required.

Invasive Species Council of BC (ISCBC) and its partners

The Invasive Species Council of BC is a non-government charity, who works in close collaboration with local partners, governments, and businesses with the goal of reducing the introduction and spread of invasive species. At the request of governments and industry, the ISCBC is serving as Project Facilitator to help facilitate multi-party planning and information exchange across government and non-government stakeholders.

BC Landscape and Nursery Association (BCLNA)

The BC Landscape and Nursery Association provides industry perspective and outreach to its members who are or may be directly impacted by the Japanese beetle response.

The Vancouver Board of Parks and Recreation

The Vancouver Board of Parks and Recreation is responsible for finalizing and implementing a treatment program of public lands in cooperation with the City of Vancouver, and in consultation with the Province, the CFIA and industry contractors, as required.

Other response members include:

- **Investment Agriculture Foundation of British Columbia**
- **Metro Vancouver Regional District (MVRD)**
- **Sustainable Canadian Agricultural Partnership**

Japanese beetle Surveillance

What is "surveillance" and why is it important?

Plant health surveys are an important part of plant pest and disease control and eradication programs. Surveillance may include visual, trapping, sampling, or rearing surveys. The results of these surveys identify new detections and provide data on current populations of pests, like Japanese beetle. This data helps to inform treatment activities, identifies the need for movement controls and influences decision-making related to the response. Surveys support import, export, and domestic regulatory programs, helping to maintain claims of "pest-free" status of an area.

Japanese beetle Surveillance

The CFIA conducts annual trapping surveys for **Adult JB from June 10 to October 15** (typical JB flight season). Trap placement begins in late April. Early placement is due to the number of traps being deployed. Traps are placed in a grid pattern throughout identified geographic areas where beetles may have been detected or are at risk of detections. Traps are checked every three weeks, while high risk, peak flight sites are checked once per week. Traps use a lure which has a floral and sex pheromone combination.

The types of surveillance traps used by the CFIA are shown in the picture on the right. There is a green and/or yellow wing vane over a funnel which is attached to collection chamber. The CFIA use three types of traps: ground, canopy, and roof traps. There is a tag attached to the traps explaining what they are. The CFIA asks that the traps be left alone and that traps which are damaged, have fallen or may be missing, are reported to the CFIA as soon as possible!

The CFIA's Japanese beetle Surveillance Results in BC: 2017 to 2025

YEAR	Total # of JB Detected	Locations of the detections
2017	958	Vancouver (958)
2018	8274	Delta (1) Vancouver (8273)
2019	1157	Vancouver (1157)
2020	214	Port Coquitlam (1) Vancouver (213)
2021	79	Burnaby (5) Port Coquitlam (1) Vancouver (73)
2022	201	Burnaby (35) Port Coquitlam (126) Richmond (1) Vancouver (39)
2023	644	Burnaby (29) Port Coquitlam (611) Vancouver (4)
2024	572	Abbotsford (1) Burnaby (19) Kamloops (11) Port Coquitlam (541)
2025	2226	Abbotsford (3) Burnaby (33) Coquitlam (1) Kamloops (769) Port Coquitlam (1417) Vancouver (3)

Summary of the CFIA's 2025 Japanese beetle Surveillance Results in BC

In 2025: 2,226 Japanese beetles were collected from across BC and confirmed by laboratory testing.

This includes:

- 1,811 beetles were detected through trapping (ground and canopy traps)
- 344 collected from host plants by hand **new for response**
- 71 beetles that were reported by the public

Of the total number of JB detected in 2025, 538 were found OUTSIDE of the current JB regulated areas

By comparison, in 2024: **572** Japanese beetles were collected from across BC

In 2025, the CFIA deployed 3524 JB traps in British Columbia during the Japanese beetle flight season from mid-June to mid-October.

Due to privacy considerations for residents, the exact locations of the detections cannot be shared, but will be discussed during the meeting on January 26.

Next Steps

Once the Japanese beetle surveillance data has been collected, it is assessed by scientific experts, including members of the British Columbia Plant Protection Advisory Council (BCPPAC) Japanese beetle Technical Advisory Committee (JB TAC), who will then make recommendations for 2026, along with the JB Steering Committee and sub-committees. Recommendations may impact the surveillance plan for 2026, movement controls, treatment, and communications activities in 2026.

Based on the survey data collected, recommendations may be made regarding whether a new, expanded and/or decreased federally regulated area is beneficial to the Japanese beetle response. Many factors are considered when establishing or amending a regulated area. BC will maintain its Japanese beetle pest-free status while an eradication response is underway. Recommendations may also be made regarding regulated articles.

Recommendations will also be made to the Province regarding treatment activities in the areas at and around the detection sites.

The discussions which occur on January 26, along with the feedback you provide from your organization's perspective, will help to inform these recommendations.

Current Regulatory Controls

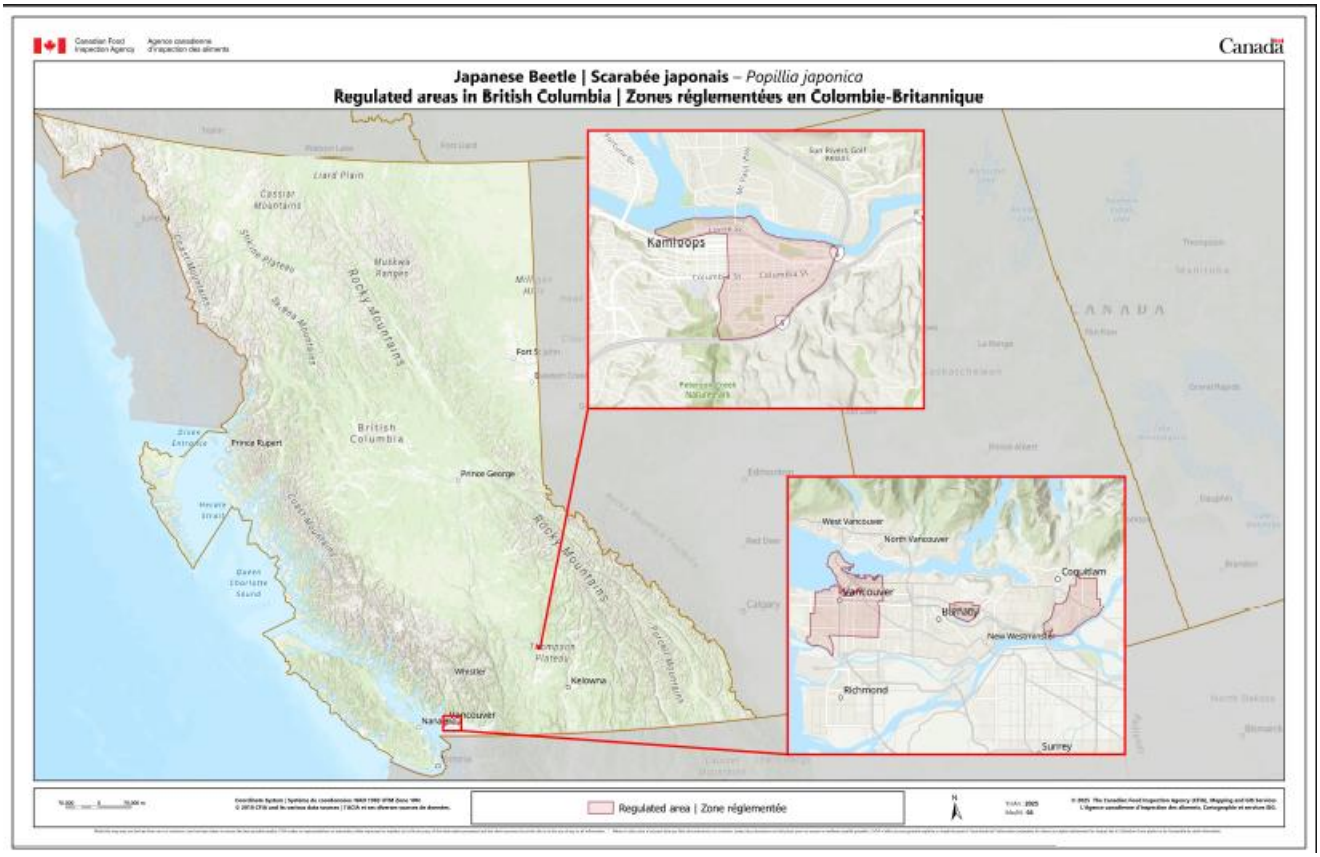
As a result of the number of Japanese beetle detections found in 2022, the federal Phytosanitary Requirements to Prevent the Spread of Japanese Beetle (*Popillia japonica*) in Canada and the United States (D-96-15) were revised in May 2023. Under the revised directive, movement controls to prevent the spread of Japanese beetle in the Province of BC changed.

To facilitate the implementation of the revised guidelines, the Japanese beetle Ministerial Order was revoked on May 5, 2023 to focus efforts on the highest risk articles – plants with soil or soil-related matter attached. A movement certificate is no longer required to remove soil or plants and plant parts with no soil attached (above-ground parts) from a Japanese beetle regulated area in BC.

In August 2024, the directive was further revised to clarify the definition of Japanese beetle regulated articles to include plants with growing media attached and provide additional direction on various regulatory requirements.

Current Japanese beetle regulated areas in BC

This map shows where the current Japanese beetle regulated areas are in BC. There are regulated areas in the Cities of Burnaby, Coquitlam, Kamloops, Port Coquitlam, and Vancouver.



To find out if you are in a Japanese beetle regulated area or view details of the boundaries, you can visit the CFIA's website:

- Japanese beetle regulated areas – interactive map

Movement of certain items (regulated articles) out of these areas is under regulatory control. Regulated articles are allowed to move **only within these areas** without certification, to prevent the unintentional human-assisted spread of Japanese beetle into pest-free, unregulated areas.

If a regulated area takes effect, what happens?

Regulated areas are established to restrict the spread of unwanted pests outside of those areas. This is achieved by maintaining and enforcing restrictions on the movement of potentially infested articles out of areas where a quarantine pest has been found.

The CFIA is the regulatory body that enforces the *Plant Protection Act, Regulations,* and the related requirements. When issues of non-compliance are observed, the CFIA will follow the Agency's Compliance and Enforcement Operational Policy.

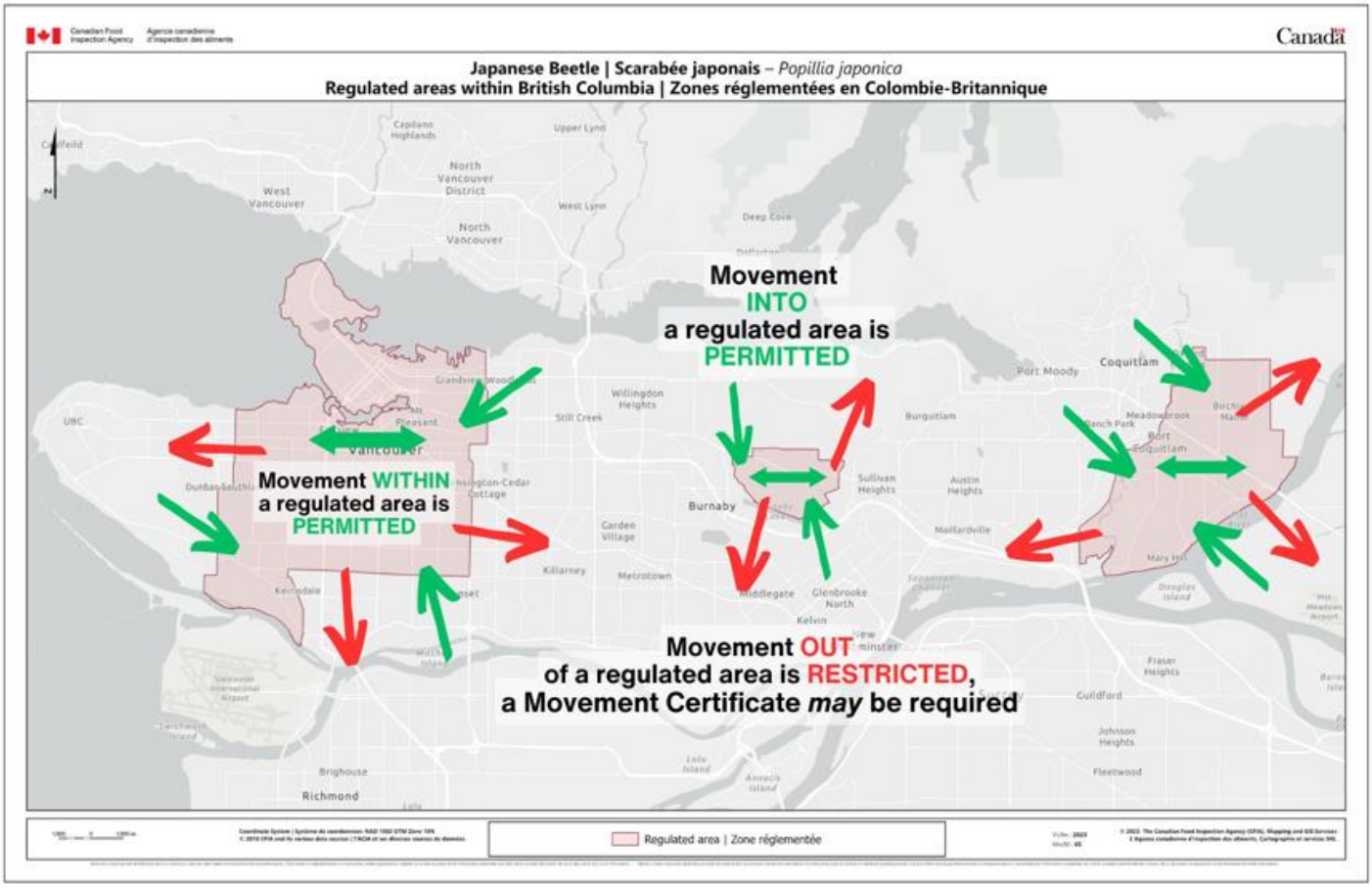
Where potential non-compliance is found, the CFIA will provide the regulated party with the opportunity to regain compliance. One of the enforcement options is to issue an Administrative Monetary Penalty (AMP) which is a Notice of Violation with a warning, or it can include a penalty. Penalties for individuals can range from $500 to $1,300 and $1,300 to $10,000 for violations committed during the course of business.

What are "regulated articles"?

- Regulated articles are things that are infested or likely to be infested with Japanese beetle when originating from a regulated area.
- Regulated articles include things that may be a pathway for the movement of Japanese beetle eggs, larvae, pupae and/or adults.
- In the case of JB, the regulated articles include **plants with soil, soil-related matter and/or growing media attached**.

A movement certificate issued by the CFIA is required year-round to move regulated articles outside of a regulated area. Any person who violates these prohibitions or restrictions of movement may be subject to a fine and/or liable to prosecution. The movement of plants with soil, soil-related matter and/or growing media attached within a regulated area does not require a domestic movement certificate.

This map gives a general overview on how movement restrictions work for regulated articles:



- Movement **WITHIN** a regulated area is **permitted**. Items can move freely.
- Movement **INTO** a regulated area is **permitted**.
- Movement **OUT** of a regulated area is **RESTRICTED**; **a Movement Certificate MAY be required**.

An Overview of Treatment Activities To-Date

When Japanese beetle is detected, the Province of BC may issue a provincial a Treatment Order, or *Notice to Treat,* for public or private lands at and around the detection site(s). Treatment areas are not always within regulated areas, particularly if then affected site is new and Japanese beetle has not been previously detected there. Treatments are applied with ground equipment by trained and licensed pest management specialists, in accordance with Pest Regulatory Management Agency (PMRA) standards and will be as unobtrusive as possible.

The Province coordinates treatment plans with the municipalities, the CFIA, landscapers, and other partners based on identified priority areas.

The municipalities coordinate the treatment of public lands with turf grass and landscapes at risk where Japanese beetle has been detected. Treatment of private lands is coordinated by the municipalities, licenced applicators, and the Province.

In 2018, 2019 and 2020, treatment orders of public lands were issued within the City of Vancouver where Japanese beetle was detected the same or previous year. In 2021, treatment areas were added in both the Cities of Burnaby and Vancouver. In 2022 and 2023, treatment areas included sites within the Cities of Burnaby, Port Coquitlam, and Vancouver. In May of 2023, the City of Richmond also applied treatment to a Japanese beetle detection site identified the previous year.

Treatment has proven effective in reducing the number of beetles within the original Vancouver regulated area from 2017 to present day.

What treatment is applied?

When a Treatment Order is issued:

- a larvicide, Acelepryn (*chlorantraniliprole*), may be applied once per year in April-September to turf in the infested areas to kill Japanese beetle larvae. Acelepyrn is a reduced risk product approved by Health Canada.
- a foliar (leaf) application of the biological insecticide BeetleGONE!, *Bacillus thuringiensis* subsp. *galleriae* (Btg), may be applied to foliage during the Japanese beetle flight period in areas where adult beetles are suspected. Depending on the weather and beetle development patterns, up to four applications may be required, generally at one-week intervals in between June to August.

The larvicide used to treat for this pest, Acelepryn (*chlorantraniliprole*), is a reduced risk product approved by Health Canada. The product is applied by ground application once a year, and the Japanese beetle larvae contact or ingest the chemical while they are feeding on turf and plant roots. Acelepryn was selected for the treatment due to its very low toxicity and favourable

environmental profile. The larvicide controls root-eating grubs, and will not impact people, pets, mammals, birds, bees, butterflies or other plants and animals, including any mammals or birds that eat the treated grubs. The treatment will be applied manually by trained and licensed pest management specialists and will be as unobtrusive as possible.

The biological insecticide used to protect foliage (leaves) is a low-risk product approved by Health Canada. It will be used in any locations where adult beetles or feeding is found on landscape plants.

Winsome Fly (*Istocheta aldrichi*) Biocontrol Research

An update will be provided on an ongoing Agriculture and Agri-Food Canada (AAFC) research project related to the use of the Winsome fly (*Istocheta aldrichi*) as a safe form of Japanese beetle biocontrol.

An Overview of Outreach Activities To-Date

The members of the response have conducted outreach to support each organization's individual and collective area(s) of responsibility in the collaborative response. All members conduct outreach to the public, industry, and special interest groups to increase reporting of the beetle presence, increase awareness and prevent further spread. Common messaging has been developed and continues to evolve, ensuring consistent, clear, and timely messaging for audiences of the Japanese beetle response. Specific messaging and communications products have been developed for those who may be impacted by detections, may be near or within a regulated and/or treatment area, and specific audiences who may be impacted or interested by the response activities, e.g. retailers, growers, strata residents, master gardeners, et al.

Japanese beetle resources:

Additional information about the Japanese beetle response can be found on the following web pages:

- **CFIA:** [English]: canada.ca/japanesebeetle | [French]: canada.ca/scarabeejaponais
- **Province of BC:** gov.bc.ca/japanesebeetle
- **City of Burnaby:** burnaby.ca/japanesebeetle
- **City of Kamloops:** kamloops.ca/JapaneseBeetle
- **City of Port Coquitlam:** portcoquitlam.ca/japanesebeetle
- **City of Vancouver:** vancouver.ca/japanesebeetle
- **British Columbia Landscape and Nursery Association (BCLNA):** bclna.com
- **Invasive Species Council of BC (ISCBC):** bcinvasives.ca
- British Columbia Plant Protection Advisory Council (BCPPAC)

The Metro Vancouver Regional District (MVRD) has developed a Japanese beetle Guidebook for municipalities and practitioners in British Columbia who may be new to the Japanese beetle response: Japanese Beetle Guidebook (metrovancouver.org)

The Invasive Species Council of British Columbia has developed an animated video to engage with those who may be new to the response: What you need to know - Japanese beetle (Popillia japonica) in British Columbia