

The Management of Invasive Alien Plant Species on National Roads

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The Management of Invasive Alien Plant Species on National Roads

Characteristics of Invasive Alien Plant Species (IAPS)

- Prolific reproduction
- Rapid growth in unfavourable conditions
- Resistance to standard control methods

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Effects of unmanaged IAPS

- Out-compete native vegetation
- Damage infrastructure
- Cause soil erosion and collapse of riverbanks
- Affect landscape quality
- Impact road safety



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Publications

- GE-ENV-01104 *The Management of Invasive Alien Plant Species on National Roads – Standard* (TII, December 2020)
- GE-ENV-01105 *The Management of Invasive Alien Plant Species on National Roads – Technical Guidance* (TII, December 2020)

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Development

- *Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads* (Revision 1, National Roads Authority, December 2010)
- TII's Environmental Policy and Compliance Section
- TII's IAPS Management Programme
- Internal review and inter-departmental consultation
- External consultation (e.g., Pesticides Registration and Control Divisions of the Department of Agriculture, Food & the Marine)
- Peer review by Professor Joe Caffrey

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IAPS Management Programme



IAPS Management Programme | 2016 - 2019 Priority 1 Counties



15

Contracts Awarded



€1.75m

In IAPS Management Funding



4 Year Programme

4 Phases



1,485

Full IAPS Assessment Site Surveys



1,459

Sites Treated



206,618m²

Area Treated

Invasive Plant Species %

Full IAPS Assessment Surveys

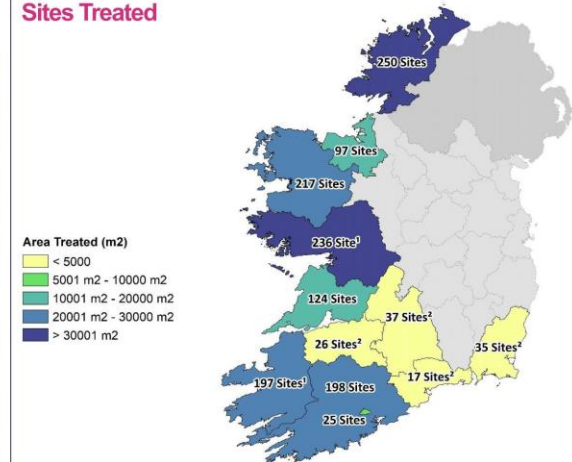
| County | Japanese Knotweed % | Giant Rhubarb % | Himalayan Knotweed % | Giant Knotweed % | Bohemian Knotweed % |
|------------------------|---------------------|-----------------|----------------------|------------------|---------------------|
| Clare | 98.15% | 0.04% | 1.81% | 0.00% | 0.00% |
| Cork City | 95.31% | 0.00% | 0.00% | 3.16% | 1.53% |
| Cork County | 90.96% | 4.59% | 4.39% | 0.06% | 0.00% |
| Donegal | 37.22% | 20.10% | 41.72% | 0.95% | 0.00% |
| Galway ¹ | 3.27% | 84.06% | 11.45% | 1.22% | 0.00% |
| Kerry ¹ | 90.46% | 7.23% | 2.31% | 0.00% | 0.00% |
| Limerick ² | 79.96% | 0.00% | 0.00% | 0.00% | 20.04% |
| Mayo | 75.25% | 11.99% | 12.76% | 0.00% | 0.00% |
| Sligo | 67.65% | 32.35% | 0.00% | 0.00% | 0.00% |
| Tipperary ² | 79.54% | 0.00% | 1.75% | 0.00% | 18.71% |
| Waterford ² | 100.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Wexford ² | 100.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Grand Total | 58.90% | 26.52% | 13.55% | 0.58% | 0.45% |

Facts

- Japanese Knotweed was found to be most prevalent, covering a total area of 124,372 m² or 58.9% of IAPS overall. This was followed by Giant Rhubarb measuring a total area of 56,005 m² or 26.5% of IAPS overall;

- County Galway was the county with the largest area of IAPS being treated at 44,898 m² approximately.

Sites Treated



| | |
|--|---|
| Clare N67, N68 & N85 15,727 m ² treated 5.4% regrowth in 2019 | Limerick² N21, N24, N69 1,197 m ² treated 2.0% regrowth in 2019 |
| Cork City³ N8, N20, N22 and N27 7,842 m ² treated 17.7% regrowth in 2019 | Mayo N5, N17, N26, N59, N60, N83 and N84 28,545 m ² treated 3.7% regrowth in 2019 |
| Cork County N20, N22, N25, N27, N28, N71, N72 and N73 20,990 m ² treated 7.7% regrowth in 2019 | Sligo N4, N15, N16, N17 and N59 10,442 m ² treated 2.4% regrowth in 2019 |
| Donegal N3, N13, N14, N15, N56 42,520 m ² treated 4.2% regrowth in 2019 | Tipperary² N24, N52, N62, N65, N74 and N76 3,111 m ² treated 2.1% regrowth in 2019 |
| Galway¹ N59 44,898 m ² treated 2.1% regrowth in 2019 | Waterford² N25 and N72 2,172 m ² treated TBC % regrowth in 2019 |
| Kerry¹ N70 and N86 24,284 m ² treated 4.1% regrowth in 2019 | Wexford² N11, N25, N30 and N80 4,890 m ² treated 3.1% regrowth in 2019 |

1. Residual contract for this county commenced in 2017. This data has been excluded from this infographic.
2. Data incomplete for this county
3. % regrowth value is high due to the addition of a new large site in 2018

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Implementation

- GE-ENV-01104 *The Management of Invasive Alien Plant Species on National Roads – Standard* (TII, December 2020)
- Applies to national road projects that are subject to:
 - Environmental Impact Assessment
 - Appropriate Assessment
 - ‘Part 8’ procedure

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Implementation (Cont'd)

- In relation to other national road projects and maintenance activities, the Standard shall be:
 - treated as advice and guidance;
 - employed to the extent that is reasonably practicable; and,
 - applied in a proportionate manner.

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Contents

- Law Driving and Regulating IAPS Management
- IAPS Management Strategies – Planning, Construction and Maintenance
- IAPS Management Process
- Identification, Ecology and Control of IAPS

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Law Driving and Regulating IAPS Management

- Outline of the law driving and regulating the management of IAPS:
 - Driving:
 - Habitats Regulations
 - Tort of Private Nuisance
 - Invasive Alien Species Regulation
 - Regulating:
 - Use of Plant Protection Products and Sustainable Use of Pesticides legislation
 - Waste Management Acts
 - Health and Safety
 - Habitats Regulations

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IAPS Management Strategies – Planning, Construction and Maintenance

- Planning:
 - Planning begins at Phase 3 – Design and Environmental Evaluation
 - Consideration when devising the CPO
 - Enabling works or advance contracts (Phase 5 – Enabling and Procurement)
- Construction:
 - Early demarcation and control
 - Importation sources assessed
 - Biosecurity measures
- Maintenance:
 - Signage and information
 - IAPS management

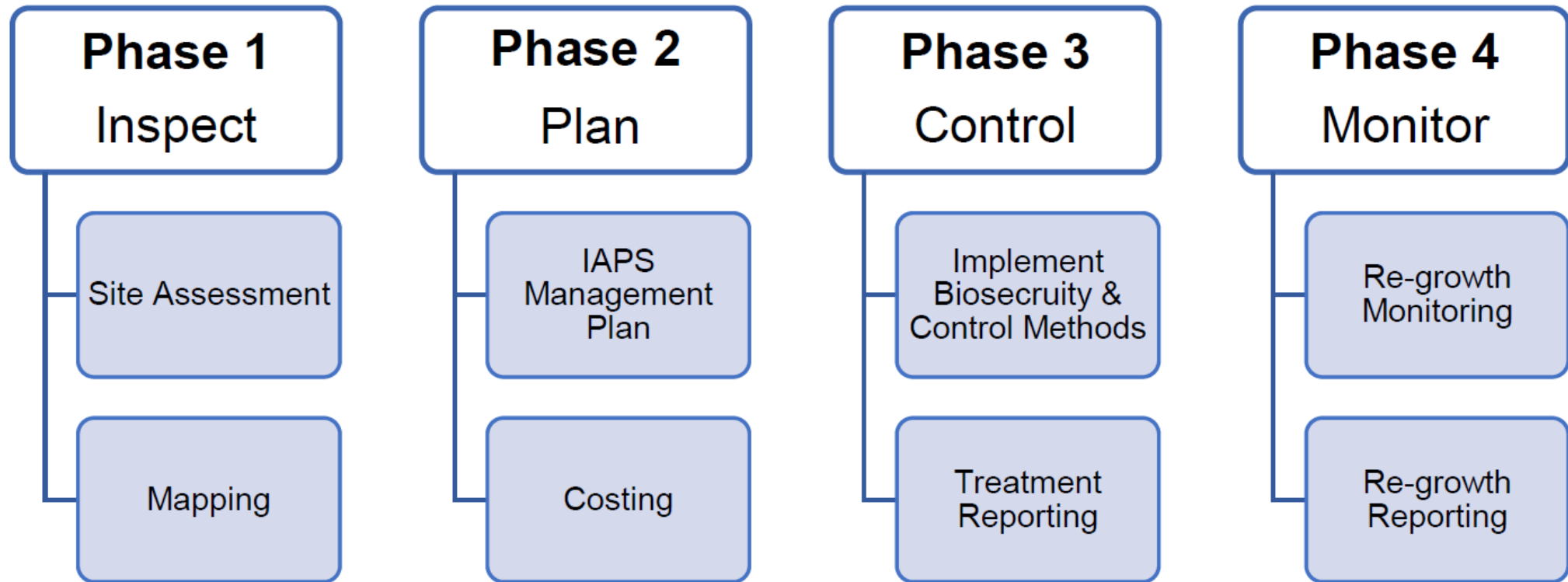
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IAPS Management Process – Key Personnel

- Health and Safety Manager
- Competent Person (Temporary Traffic Management)
- Registered Professional Users (of Pesticides)
- Ecologist or Horticulturalist
- Persons with competences in:
 - Geographical Information Systems; and
 - Land Surveying.
- Access to the advice of a Registered Pesticide Advisor

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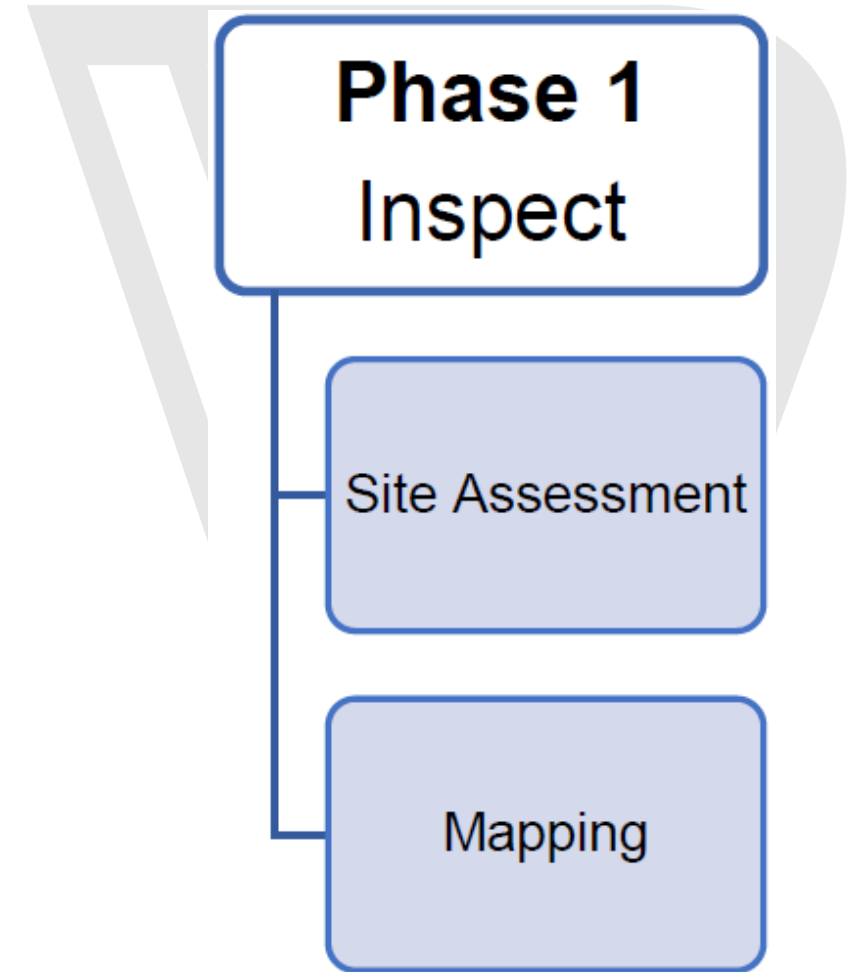
IAPS Management Process



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Phase 1 – Inspect

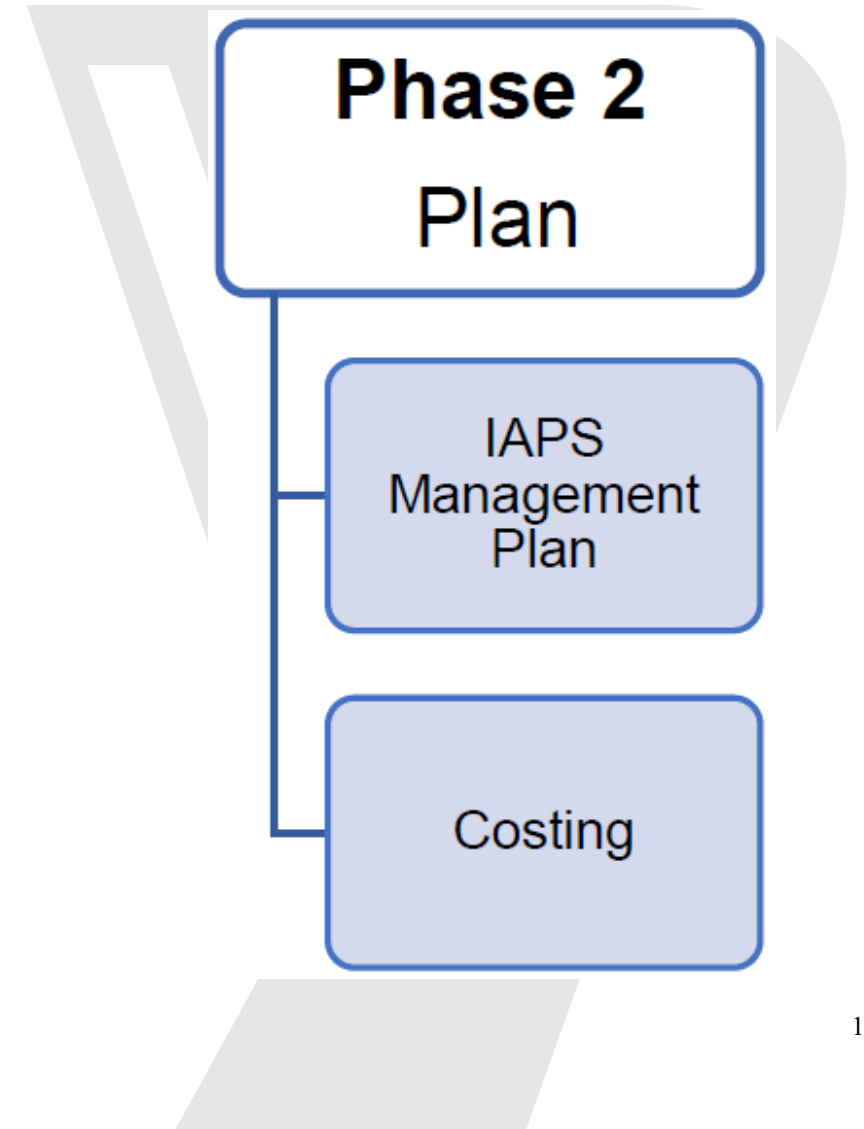
- Ecologist or Horticulturalist:
 - Site inspection
 - Identify IAPS
 - Protected or rare habitats and species
 - Advise re: control options, timings, etc.
- Survey and Geographic Information System (GIS)
 - Submission to TII, the Client and the National Biodiversity Data Centre



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Phase 2 – IAPS Management Planning and Costing

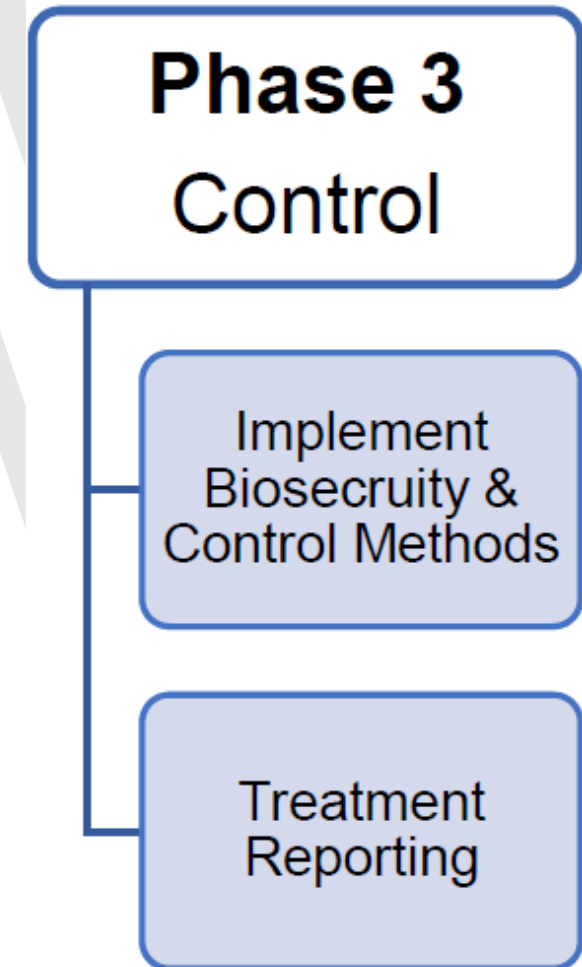
- IAPS Management Plan:
 - Proposed biosecurity, control and management measures
- Costings of control strategies



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Phase 3 – IAPS Control Measures

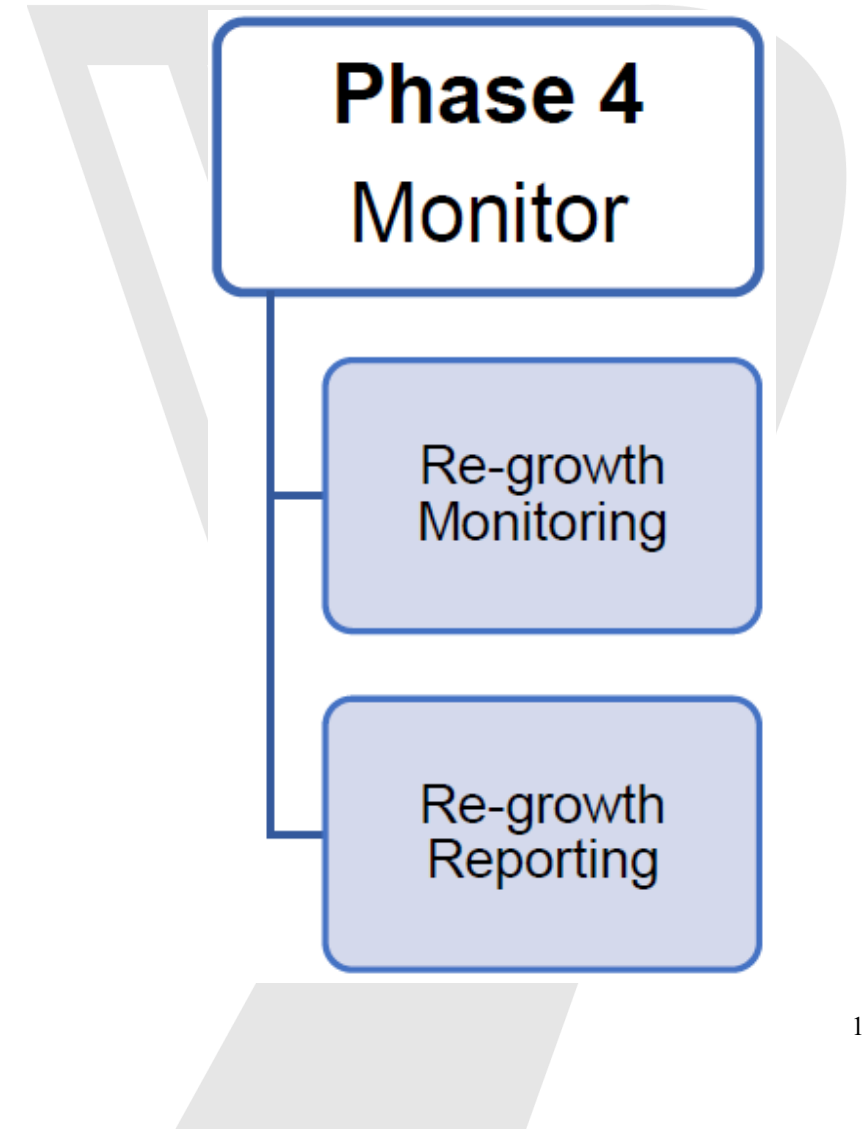
- Ecologist or horticulturalist, in consultation with Registered Pesticide Advisor/Registered Professional User, as appropriate.
- Chemical methods:
 - Herbicides
- Physical methods:
 - Cutting
 - Excavation and deep burial
 - Etc.
- Biosecurity measures



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Phase 4 – Treatment Monitoring

- Methods of treatment should be documented.
- Re-growth should be monitored and reported.



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Identification and Ecology of IAPS

- Identification
- Ecology and Distribution
- Control:
 - Physical
 - Chemical

| | |
|--|-----------|
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Thank You

