UTILITY ARBORIST ASSOCIATION | AN INTEGRATED VEGETATION MANAGEMENT GUIDE

UAA®
UTILITY ARBORIST ASSOCIATION

Considerations for management of structurally compatible species

(NON-NATIVE, NOXIOUS, OR INVASIVE)

DEFINITIONS

Native Species
(Executive Order 13112)
"Native species" means, with respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.

Alien Species
(Executive Order 13112)
"Alien species" means, with respect to a particular ecosystem, any species—including its seeds, eggs, spores, and other biological material capable of propagating that species—that is not native to that ecosystem.

Non-Native Species
(Executive Order 13751)
"Non-native species" (or "alien species") means, with respect to a particular ecosystem, an organism—including its seeds, eggs, spores, and other biological material capable of propagating that species—that occurs outside of its natural range.

Invasive Species
(Executive Order 13751)
"Invasive species" means, with regard to a particular ecosystem, a non-native organism whose introduction causes or is likely to cause economic or environmental harm or harm to human, animal, or plant health.

Federal Noxious Weeds
(US Code, Title 7, Chapter 104, Sec 7701-7786, 2021)
A federal noxious weed is defined as "any plant or plant product that can directly or indirectly injure or cause damage to crops (including nursery stock or plant products), livestock, poultry, or other interests of agriculture, irrigation, navigation, the natural resources of the United States, the public health, or the environment." Federal noxious weeds are taxa prohibited or restricted from taken into any state or moving interstate within the United States.

Naturalized or native plant
(USDA)
A native plant is a plant that is a part of the balance of nature that has developed over hundreds or thousands of years in a particular region or ecosystem.

Introduction

Integrated Vegetation Management (IVM) has gained industrywide recognition as a best practice following publication of the ANSI A300 (Part 7) standard and its companion publication, Best Management Practices—Integrated Vegetation Management. As adoption of IVM has expanded, many vegetation managers are exploring what "compatible" means on their systems. They are looking at shifting their IVM objectives to focus on supporting structurally compatible plant communities on their rights-of-way (ROWs) rather than focusing exclusively on preventing the encroachment of structurally incompatible vegetation to maintain minimum vegetation clearance distances. As a result, vegetation managers have turned to the Utility Arborist Association (UAA) for guidance on how to select vegetation that is structurally compatible and does not demonstrate a threat to the compatible plant communities on the ROWs, established habitat, or neighboring land use—that is, are not non-native, noxious, or invasive plants.

The UAA Environmental Stewardship Committee (ESC) has put together this guidance document to address this request, but there are a few caveats. First, this document addresses an emerging issue in IVM and Utility Vegetation Management (UVM). The UAA ESC recognizes that the issue and any guidance will evolve with time and experience. Second, objectives for UVM programs are established by vegetation managers, their organizations, teams, and stakeholders. For many UVM program objectives, maintaining a structurally compatible vegetative community is the measure of success. Please note, however, that considerations of the specific makeup of a structurally compatible vegetative community could be out of the scope with the UVM program objectives.

Adoption of this guidance document should be considered voluntary unless jurisdictional regulations mandating control of specific noxious weeds or if invasive species exist. This document was developed to provide some structure to the decision-making process for the use of non-native, noxious, or invasive plants and the shifting of management objectives to consider these plants incompatible for reasons other than structure.

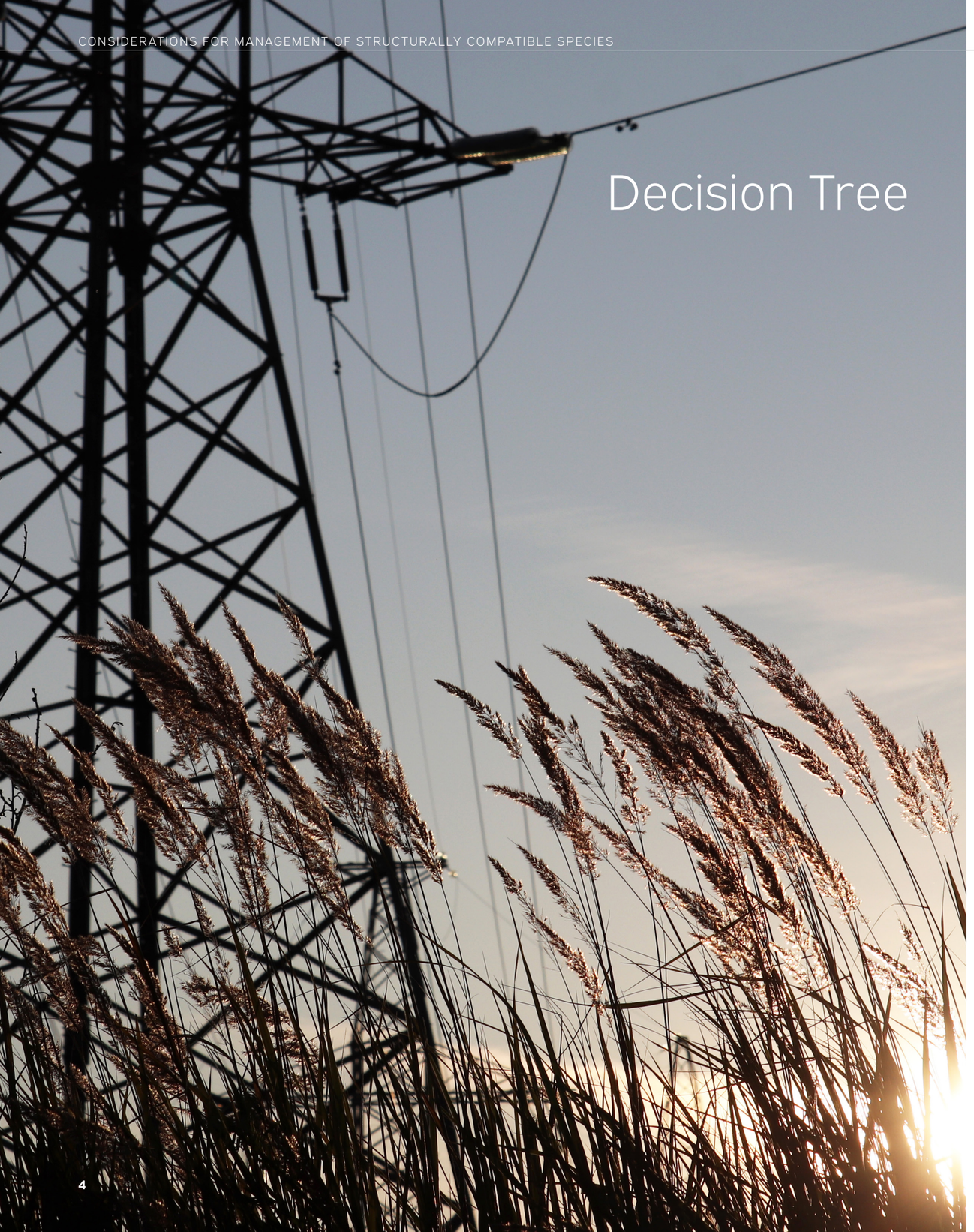
ANSI A300 (Part 7) defines compatible vegetation as "plant forms consistent with management objectives." Ultimately, considerations about non-native, noxious, or invasive species that are structurally compatible with the site's intended use depend on specific management objectives. The IVM standard provides potential management objectives for which these considerations may be significant. Some management objectives that may consider species makeup outside of structural compatibility include, but are not limited to, the following:

- Controlling noxious weeds and invasive species
- Improving aesthetics
- Managing pollinator and wildlife habitat
- Reducing the risk of wildfire (in the case of invasive weeds that are a high fire threat)
- Restoring ecological and environmental benefits

If a program's objectives consist of these or others that consider more than structural compatibility, this guidance document can help frame the decision-making process. Know that, as tolerance levels and action thresholds are established, incompatible plant pressure may need to be considered as to species, density, location, and other criteria—not just height.

One final point in the consideration for managing plant communities that provide more than just structural compatibility: The Right-of-Way Stewardship Council, through the Right-of-Way Stewardship Accreditation and its associated standard, provides a guidepost to recognize IVM excellence through the ten principles outlined in the standard, along with their associated criteria, indicators, and verifiers. Principle 8 in the standard, Accounting for economic and ecological effects of treatment, contains a criterion (8.2) for environmental viability. That section addresses situations in which a UVM program manager is considering the full environmental costs and requirements of vegetation management activities. Treatment choices must be made with full consideration of direct and indirect effects, including an array of positive (ecosystem services) and negative environmental impacts. Many of the indicators in this criterion map closely to the example objectives outlined in the IVM standard and as mentioned above.

Additionally, Indicator 8.2.d of the accreditation standard requires that "invasive plants be managed with adequate planning and appropriate maintenance practices to prevent their spread whenever practical to do so." The purpose of this document, therefore, is to guide a vegetation manager through the decision-making process to determine when it is practical to consider the management of invasive plants and other species that, though structurally compatible, may not be fully compatible with the management objectives of the site.



Decision Tree

A decision tree for IVM-based programs can be used for species that are structurally compatible with the intended use of the site but have the potential to be problematic due to being a non-native or invasive species or a noxious weed. The following questions are used in a decision tree.

Q1: ***Is the species structurally compatible with the intended use of the site?***

- No, the species is structurally incompatible.
  - Control vegetation using IVM best management practices designed to remove incompatible species. (End process)
- Yes, the species is structurally compatible. (Continue to Q2)

Q2: ***Is the structurally compatible species a noxious weed?***

- No, the structurally compatible species is not a noxious weed. (Continue to Q3)
- Yes, the structurally compatible species is a noxious weed.
  - Follow regulatory requirements regarding control of noxious weeds in the local jurisdiction. (End process)

Q3: ***Is the structurally compatible species an invasive species?***

- No, the structurally compatible species is not an invasive species. (Continue to Q4)
- Yes, the structurally compatible species is an invasive species. (Continue to Q3a)

Q3a: ***Is there a regulatory requirement managing the structurally compatible invasive species?***

- No.
  - Consider leaving vegetation onsite unless other factors are at play that require removal of the structurally compatible vegetation. (End process or continue to Q3b)
- Yes.
  - Follow regulatory requirements. (End process)

Q3b: ***Does the invasive species adversely affect the quality of the site?*** *(The assessment of "quality" could be based on wildlife habitat or on the threatened stability of diverse compatible plant communities to suppress reinvasion of the site by incompatible species.)*

- No.
  - Monitor the invasive species and try to control the spread. (End process)
- Yes.
  - Try to control the invasive species. (End process)

Q4: ***Is the structurally compatible species a non-native or alien species?***

- No, the structurally compatible species is not a non-native or alien species.
  - Consider leaving vegetation onsite unless other factors at play demand the removal of the structurally compatible vegetation. (End process)
- Yes, the structurally compatible species is a non-native or alien species.
  - Consider Q4a–c.

Q4a: ***Is the non-native or alien species considered naturalized in the ecosystem?***

- No.
  - Depending on how aggressive the species is, consider control. (See Table 1, then end process)
- Yes.
  - Depending on how aggressive the species is, consider letting it grow. (See Table 1, then end process)

Q4b: ***Is the non-native or alien species considered important to the ecosystem?*** *(That is, is it important as a pollinator habitat, streambank stabilizer, wildlife food source, or bird nesting habitat?)*

- No.
  - Depending on how aggressive the species is, consider control. (See Table 1, then end process)
- Yes.
  - Depending on how aggressive the species is, consider letting it grow. (See Table 1, then end process)

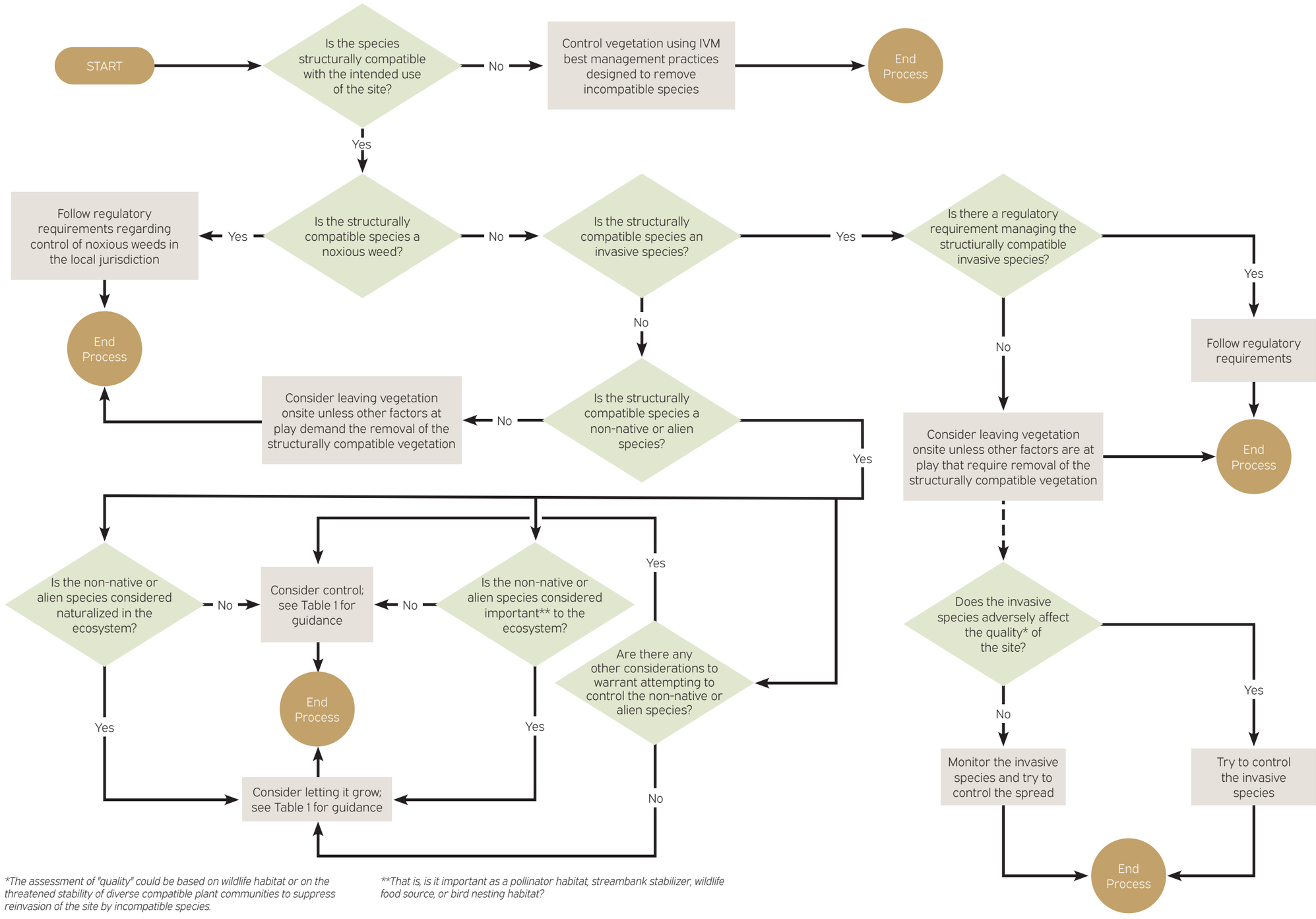
Q4c: ***Are there any other considerations to warrant attempting to control the non-native or alien species?***

- No.
  - Depending on how aggressive the species is, consider letting it grow. (See Table 1, then end process)
- Yes.
  - Depending on how aggressive the species is, consider control. (See Table 1, then end process)

Table 1. Non-native or alien species aggression and control recommendations

How aggressive is the non-native or alien species?	Not aggressive at all	Not very aggressive	Aggressive	Very aggressive	Highly aggressive
Level of control	Consider letting it grow/monitor the species	Remove and/ or monitor the species	Try to control the species	Try to control the species	Try to control the species

Decision Tree



**The assessment of "quality" could be based on wildlife habitat or on the threatened stability of diverse compatible plant communities to suppress reinvasion of the site by incompatible species.*

***That is, is it important as a pollinator habitat, streambank stabilizer, wildlife food source, or bird nesting habitat?*

Additional considerations when managing non-native, noxious, or invasive species

- Prevent the spread of non-native, noxious, and invasive species by following local, state, and federal best management practices.
- Consider the risk level related to fire hazards of compatible but non-native, noxious, and invasive species.
- Consider other risks (e.g., ecosystem services, habitat, etc.) of retaining compatible but non-native, noxious, and invasive species.
- Consider any restrictions for management of vegetation given in the easement agreement.
- Consider feasibility, cost, and location prior to controlling non-native, noxious, and invasive species.
- Consider the ability of the non-native, noxious, and invasive species to resist/suppress invasion from offsite incompatible species.

REFERENCES

Accreditation Standards For Assessing IVM Excellence | Right-of-Way Stewardship Council

ANSI A300 (Part 7) 2018 Integrated Vegetation Mgmt | Tree Care Industry Association

Executive Order 13112. 64 FR 6183, pp. 6183–6186. Document Number 99-3184 99-3184.pdf (govinfo.gov)

Executive Order 13751. 81 FR 88609, pp. 88609–88614. Document Number 2016-29519 Federal Register: Safeguarding the Nation From the Impacts of Invasive Species

Federal Noxious Weeds | USDA APHIS

Species Lists | National Invasive Species Information Center

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