

PREVENTING HARMS FROM INVASIVE PLANTS

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WHY IT MATTERS

Invasive plants pose a significant threat to climate resilience. They disrupt ecosystem structure and function, weaken the capacity of natural systems to adapt to climate change, and endanger local livelihoods and economies.¹ The **Virginia Department of Conservation and Recreation (DCR)** has identified 103 species of invasive plants threatening the Commonwealth,² with more under assessment. Globally, the number of invasive species of all kinds is projected to increase by 36% from 2005-2050.³

Invasive plants accelerate climate change, and climate change is accelerating their spread,⁴ creating a negative feedback loop. Some invasives, like kudzu and Japanese knotweed, increase the greenhouse effect by releasing stored carbon from the soil into the atmosphere.⁵ Kudzu and other invasive vines tear down the tree canopy, a particular concern alongside waterways where sunlight then warms the water, releasing even more carbon. Similarly, Japanese knotweed overtakes streambanks and riverbanks, preventing trees from regenerating.

Mature native trees can sequester approximately 48 pounds of carbon each year,⁶ or roughly 1-1.25 tonnes of CO₂ absorbed over 40 to 50 years, which newly planted seedlings will take decades to do. Protecting our forests from invasive plants and preserving their carbon storage capacity is essential to mitigating climate change.

Invasive plants are also harming the ponds, lakes, and waterways that farmers and watermen need for their livelihoods, and outdoor enthusiasts enjoy for recreation. They smother surfaces, block sunlight, alter oxygen levels, clog waterways, impede drainage, reduce flow, degrade habitat, increase flooding, and release methane, a greenhouse gas.^{7,8}

Managing invasive plants helps restore healthy ecosystems and communities that are more resilient to drought, floods, and other climate-related challenges.⁹

CURRENT LANDSCAPE

Virginia has made recent policy progress on invasive species and in 2026 passed four new laws that: 1) add invasive plant management to the powers of service districts,^{10,11} 2) remove the “commercial viability” loophole from the Virginia Noxious Weeds Law,¹² 3) require the **Virginia Department of Transportation** to create a plan for managing invasive plants along Virginia’s public roadways,¹³ and 4) permit volunteers to use herbicides on state-owned public lands while under supervision of a licensed commercial pesticide

applicator.¹⁴

Recently enacted policies in Virginia also include: requiring retail signage in proximity to each invasive plant effective January 2027;¹⁵ partial funding of the **Virginia Invasive Species Management Plan**;¹⁶ prohibiting state agencies from planting, selling, or propagating invasive plants;¹⁷ requiring tradespersons to provide written notification to property owners for all plants proposed for installation that are included on the list of invasive plants;¹⁸ and allowing localities to permit the supervised use of herbicides by volunteers on public lands.¹⁹ These are important policies, but their limited scope results in incremental progress.

Current law requires invasive plants to undergo two different assessments: DCR assesses plants for the Virginia Invasive Plant Species List,²⁰ and the Department of Agriculture and Consumer Services assesses plants for the **Noxious Weeds List**.²¹ All noxious weeds are also listed as invasive, but not all invasive plants are listed as noxious weeds. Only plants on the Noxious Weeds List are banned from being sold.

The **Virginia Residential Property Disclosure Act**²² governs the information owners must disclose to prospective purchasers of residential real property. Sellers are not required to disclose the presence of invasive plants.

OPPORTUNITIES

EXPANDING WORKFORCE

The number of qualified, licensed contractors providing invasive plant control services in Virginia cannot match demand for their services, which is at an all-time high. Reentry employment training for incarcerated individuals and herbicide-only commercial applicator licensing²³ would provide valuable professional skills for residents reentering society and help expand the workforce.

INTRODUCING TECHNOLOGY

Drones are being successfully deployed to reduce the impact of invasive plants in agricultural fields, wetlands, and other open areas.²⁴ Using drones to treat and control vast infestations of invasives like kudzu and Japanese knotweed would prevent additional carbon from being released into the atmosphere, help restore riparian tree canopies, and dramatically reduce remediation costs. This project will need state funding.

SUPPORTING LANDOWNERS

More than 80% of land in Virginia is privately owned.²⁵ Treating invasive plants is time-consuming, labor-intensive, and expensive work. Property owners have

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demonstrated they are willing to put in time and materials but need assistance to remove and control invasive plants that have encroached on their land and help protect neighboring public lands such as our state forests and local parks. Private property owners need help reducing the cost of invasive plant remediation.

REQUIRING DISCLOSURE

Japanese knotweed can cause harm to property infrastructure, including foundations, sewer pipes, and underground drains,²⁶ however, the above-ground portion of the plant goes dormant in the winter and may not be visible during a real estate transaction. In some areas, properties have been known to lose up to 10-20% of their value due to Japanese knotweed infestations.²⁷ A requirement to disclose the presence of Japanese knotweed on a property would protect Virginia residents from inheriting a hidden financial liability.

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TOP TAKEAWAYS

Invasive plants accelerate climate change, and climate change accelerates their spread, creating a negative feedback loop and producing warmer temperatures that pose a significant threat to drought and flood resilience.

Drone technology can cost-effectively control large infestations of invasives such as kudzu, phragmites, and Japanese knotweed, reducing greenhouse gases and helping improve watershed and forest health.

Workforce development and narrowing licensing requirements will be key to addressing the challenge of invasive plants.