

# **Federal Highway Administration Guidance on Invasive Species**

## **August 10, 1999**

### **Background**

On February 3, 1999, President Clinton signed Executive Order 13112 (E.O.) which calls on Executive Branch agencies to work to prevent and control the introduction and spread of invasive species. Nonnative flora and fauna can cause significant changes to ecosystems, upset the ecological balance, and cause economic harm to our Nation's agricultural and recreational sectors. For example, introduced plants, such as Kudzu in the southeastern States and purple loosestrife throughout the country, have choked out native plant species and consequently have altered wildlife and fish habitat. Transportation systems can facilitate the spread of plant and animal species outside their natural range, both domestically and internationally. Those species that are likely to harm the environment, human health, or economy are of particular concern.

The Department of Transportation's efforts to prevent the introduction and spread of invasive species are consistent with: (1) the Department's strategic goal of protecting the natural environment, service, and teamwork; (2) statutory mandates to protect against aquatic invasive species; (3) the Department's active participation on interagency committees such as the Federal Interagency Committee for Management of Noxious and Exotic Weeds (FICMNEW), the Native Plant Conservation Initiative (NPCI), the Interagency Ecosystem Management Task force, and the Interagency Working Group on Endangered Species; and (4) the 1994 Presidential Memorandum on Environmentally and Economically Beneficial Landscaping Practices. The U.S. Department of Transportation has traditionally been in the forefront of national efforts to prevent and control the introduction of invasive species. On April 22, 1999, Secretary Slater issued a policy statement directing DOT's operating administrations to implement E.O. 13112.

Highway corridors provide opportunities for the movement of invasive species through the landscape. Invasive plant or animal species can move on vehicles and in the loads they carry. Invasive plants can be moved from site to site during spraying and mowing operations. Weed seed can be inadvertently introduced into the corridor during construction on equipment and through the use of mulch, imported soil or gravel, and sod. Some invasive plant species might be deliberately planted in erosion control, landscape, or wildflower projects. Millions of miles of highway rights-of-ways traverse public and private lands. Many of these adjacent lands have weed problems and the highway rights-of-way provide corridors for further spread.

## **Guidelines**

Under the E.O., State Departments of Transportation (DOTs) have new opportunities to address roadside vegetation management issues on both their construction activities and maintenance programs. Through new levels of cooperation and communication with other agencies and conservation organizations at all levels, the highway program offer a coordinated response against the introduction and spread of invasive species.

The E.O. builds on the National Environmental Policy Act (NEPA) of 1969, the Federal Noxious Weed Act of 1974, and the Endangered Species Act of 1973 to prevent the introduction of invasive species, provide for their control, and take measures to minimize economic, ecological, and human health impacts. In response to the proactive policy of the Office of the Secretary of Transportation and the E.O., the FHWA offers the following guidance:

### Use of Federal Funds:

Under the E.O., Federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered. Complying with the E.O. means that Federal-aid and Federal Lands Highway Program funds cannot be used for construction, revegetation, or landscaping activities that purposely include the use of known invasive plant species. Until an approved national list of invasive plants is defined by the National Invasive Species Council, “known invasive plants” are defined as those listed on the official noxious weed list of the State in which the activity occurs. The FHWA recommends use of Federal-aid funds for new and expanded invasive species control efforts under each State DOTs’ roadside vegetation management program.

### FHWA NEPA Analysis:

Determinations of the likelihood of introducing or spreading invasive species and a description of measures being taken to minimize their potential harm should be made part of any process conducted to fulfill agency responsibilities under NEPA. Consideration of invasive species should occur during all phases of the environmental process to fulfill the requirements of NEPA. For example, during scoping, discussions with stakeholders should identify the potential for impacts from invasive species and include possible prevention and control measures. The actual NEPA analysis should include identification of any invasive terrestrial or aquatic animal or plant species that could do harm to native habitats within the project study area. This could involve the mapping all existing invasive populations on and adjacent to the project and a survey of existing soils for invasive potential. Also, the analysis should include the potential impact of the

disturbances caused by construction on the spread of invasives. Finally, the analysis should include a discussion of any preventative measures or eradication measures that will be taken on the project. Measures may include the inspection and cleaning of construction equipment, commitments to ensure the use of invasive-free mulches, topsoils and seed mixes, and eradication strategies to be deployed should an invasion occur. Until the National Vegetation Management Plan specified in the E.O. is completed, NEPA analyses should rely on each State's noxious weed list to define the invasive plants that must be addressed and the measures to be implemented to minimize their harm.

The FHWA strongly encourages statewide, right-of-way inventories of vegetation that map existing invasive plant infestations to provide information for NEPA analysis. In addition, the FHWA encourages the DOTs to develop their own vegetation management plans based on the E.O., their own statewide invasive plant inventories, and the National plan when available. In absence of a specific State or State DOT plans, the National plan will serve as policy and guidance to the States.

#### State DOT Activities and Funded Facilities:

The FHWA encourages the State DOTs to implement the Executive Memorandum on Beneficial Landscaping at every opportunity. This includes applying it to highway landscaping projects, rest area construction, scenic overlooks, State entrances, and Transportation Enhancement activities. In addition, FHWA recommends that roadside maintenance programs be given the necessary support to control and prevent invasive species.

#### Innovative Design:

The FHWA encourages the selection of construction and landscaping techniques and equipment that will contribute to accomplishing the intent of the E.O. These include bio-control delivery systems, more efficient equipment cleaners, improved seeding equipment for steep slopes, safer burn management equipment, easier-to-use Geographic Positioning Systems for invasive population inventories, and methods to minimize soil disturbance during vegetation management activities so as to reduce the opportunities for the introduction of invasive species.

#### Coordinated Research:

The FHWA environmental research program will promote studies on invasive plant control methods, and restoration of native species after control. We will make a concerted effort to support applied research relevant to State DOT vegetation management programs. Results will proactively be shared among States and other State and Federal resource agencies.

#### Training:

The FHWA suggests increased training of vegetation managers in maintenance

districts, landscape units, and erosion control sections within each State DOT. Integrated vegetation management principles should be included in this training. The FHWA will provide training materials for identification of invasive plants, and restoration of native plants, plus encourage regional workshops in its four national Resource Centers. The FHWA supports increased public education, especially resulting from interagency partnerships. State agencies are also encouraged to take steps to increase public awareness about invasive plant species and the integrated management methods used to control and prevent invasives.

Interagency Cooperation:

The FHWA recommends that State DOTs participate in State invasive species councils as they are established. These interagency councils will likely include Federal agencies, State, local and tribal governments. Many States have already begun to organize these councils to promote cooperative work on invasive species issues within their State. These groups can share public awareness, training, data bases, policy, and research information and be a resource the National Invasive Species Council. The FHWA suggests that each State DOT cooperate with adjacent State DOTs to establish coordinated prevention and control measures for invasive species.

Interagency Committees:

The FHWA will continue to participate in the coordinated activities of FICMNEW, NPCI, and the Aquatic Nuisance Species Task Force (ANS). The FICMNEW initiates cooperative projects aimed at public awareness, policy, training, and research on invasive plant issues. The NPCI addresses non-native invasive species issues across agencies in an effort to protect and to restore native plant communities nationwide. The ANS focuses interagency efforts on those aquatic plant and animal species that impact our Nation's waterways. The FHWA encourages participation by State DOTs in the State Interagency Invasive Species Councils.