
MARYLAND'S EMERGENCY RESPONSE PLAN FOR INVASIVE FOREST PESTS

Revised May 2005



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Maryland
Department of Agriculture



May 11, 2005

Dear Friends of Maryland's Forests,

Invasive species have been called a "catastrophic wildfire in slow motion." In recent times, significant increases in the movement of people and trade goods around the world have coincided with the transport of plant and animal species to new ecosystems where they often cause significant damage. Both the departments of Agriculture and Natural Resources have identified invasive insects and disease-causing organisms as major threats to our State's forest resources. In response to this threat, we have coordinated our scientific, management, and partnership resources under an emergency response plan.

Maryland's Emergency Response Plan for Invasive Forest Pests is intended to identify agency roles and a plan of action for early detection, rapid response, control, and management. A team of multidisciplinary specialists, managers, and researchers developed this emergency response plan to organize for success—incorporating the themes of improving capacity, procedural streamlining, and funding flexibility with long-term commitment. Although the plan organizes State efforts to combat environmental threats to forest health by invasive insects and diseases into a logical, systematic framework, it is not designed to serve as a comprehensive, all-encompassing strategy,

Maryland's forests are integral parts of our landscape. They are the single best land use for water quality protection and clean air. They provide wildlife habitat and aesthetic beauty, as well as a host of forest products that strengthen our rural economy. With good planning and preparation for an effective response to outbreaks of invasive species, we can sustain the health of Maryland's forests for both the environmental and economic benefits upon which we rely.

A handwritten signature in cursive script that reads "Lewis R. Riley".

Lewis R. Riley, Secretary
Department of Agriculture

A handwritten signature in cursive script that reads "C. Ronald Franks".

C. Ronald Franks, Secretary
Department of Natural Resources

INTRODUCTION:

Invasive species have had significant negative economic and ecologic impacts upon various ecosystems in Maryland for more than 100 years. The accidental introduction of the fungus that causes chestnut blight affected forest ecosystems across the State. More recently, the gypsy moth has cost millions of dollars in control and management.

Increased international trade and travel has led to a significant increase in the accidental movement of species into new areas. Additionally, fragmentation and disturbance have made forest ecosystems more vulnerable to establishment and proliferation of invasive species. More than 400 non-native insects that feed on trees and shrubs are now established in the United States with significant economic impacts.

Most non-native, and potentially invasive, species are prevented from entering this country by USDA-APHIS port inspections; however, due to the volume and cryptic nature of many of these species, some escape detection and become established. The early detection and eradication of an invasive species, either before it becomes established, or before populations increase, is critical to limiting their impacts.

In Maryland, a network of regulations, inspections and surveys is already in place to detect the introduction of an invasive species. The Maryland Department of Agriculture, Plant Protection and Weed Management Section conducts inspections of nursery stock entering the State, as well as systematic surveys through the Cooperative Agricultural Pest Survey program. The Maryland Department of Agriculture, Forest Pest Management Section conducts annual, systematic surveys in forested areas through the Cooperative Forest Health Program and the Forest Health Monitoring program. These programs work closely with the Maryland Department of Natural Resources, Maryland Forest Service and the public to recognize and report new forest pest problems in Maryland.

This Emergency Response Plan will be activated when a new, invasive species is detected either through surveys or from the public, and its taxonomic identification is confirmed by specialists. The submittal of specimens for identification, especially species of regulatory concern, will be coordinated through the State Plant Regulatory Official or State Plant Health Director's office. Once they are notified of the identity of the specimen, the Emergency Response Plan will begin with the activation of the Incident Command System.



I. Scope and Purpose:

- A. To ensure adequate response to new insect and disease threats to the forest and tree resources of Maryland.
- B. To ensure effective and timely communication between local, regional, state and federal government agencies, academia, plant industry professionals and the public, related to new forest or tree invading insects or diseases.
- C. To clearly define agency roles for Maryland's response to invading insects or diseases using a modified Incident Command System (ICS) that addresses assessment, outreach, education, eradication and containment, relevant authorities and/or duties, and the coordination of resources.
- D. To ensure effective public notification of the threat and likely response activities.
- E. To ensure continued monitoring of forest and tree resources to allow for the identification and assessment of invasive threats.
- F. To ensure the implementation of appropriate management and control measures.

II. Authorization:

All actions taken during the execution of this plan are authorized by and conducted in accordance with the provisions of the following:

- A. Federal Law
 - Plant Protection Act, 7 U.S.C. § 7701 (2000),
 - Agricultural Bioterrorism Prevention Act of 2002, 7 CFR pt. 331(2005)
- B. State Law
 - Plant Disease Control Law, Md. Code Ann., Agric. §§5-301 to 314 (1999)
 - Pest Control Compact, Md. Code Ann., Agric. §§5-701 to 716 (1999), Md. Code Ann., Nat. Res. I§5-201 (2000 Repl. Vol.), Role of the Department in General
 - Maryland Dept. of Agriculture Plant Pest Control Regulations, COMAR 15.06.02
- C. Other authorities may also apply.

III. Agency Roles and Responsibilities:

A. Maryland Department of Agriculture (MDA) is the lead State agency to prevent the introduction into and the dissemination within Maryland of insect and disease invaders of Maryland's forest and trees. Its responsibilities will include but are not limited to the following:



- 1) Provide surveillance and detection, follow-up inspections on reported suspect invasive species, identification, assessment and monitoring.
 - 2) Notify and coordinate activities with the appropriate local, state, and federal agencies and other appropriate organizations related to program responsibilities and this response plan.
 - 3) Confirm identification of samples and suspect organisms.
 - 4) Develop a communication and outreach plan for cooperators and the public on invasive species threats and develop specific messages once a damaging invasive species has been confirmed in Maryland.
 - 5) Coordinate the communication of invasive species information with the United States Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS), USDA Forest Service (USFS), Maryland Department of Natural Resources (DNR), the University of Maryland Cooperative Extension, other appropriate universities, USDA Natural Resources Conservation Service (NRCS), local Soil Conservation Districts, tree care professionals, nurseryman and other plant experts.
 - 6) Implement and maintain appropriate state and federal quarantines.
 - 7) Review and coordinate control activities to ensure compliance with federal, state and local laws.
 - 8) Condemn and seize materials when appropriate.
 - 9) Oversee eradication or destruction of infested or potentially infested materials or vectors.
 - 10) Provide or assist with the procurement of funding for survey, outreach and monitoring when appropriate.
 - 11) Provide pest management expertise and advice to all cooperators (including nurserymen) and the public.
- B. USDA APHIS - Plant Protection and Quarantine (PPQ)** is the lead Federal agency to prevent the introduction of plant pests in the United States and to prevent interstate dissemination.
- 1) Monitor ports of entry and conduct inspections for exotic pests.
 - 2) Implement emergency measures at the federal level to prevent dissemination of exotic plant pests when discovered.
 - 3) Provide identification of invasive species.
 - 4) Provide federal funding for survey, outreach, monitoring and response when appropriate.
 - 5) Conduct investigations.

C. The Maryland Department of Natural Resources (DNR) is the lead State agency to prevent the introduction of forest and plant pests into State managed lands.



- 1) Assist with coordination of activities through the Incident Command System (ICS) with the appropriate local, state, and federal agencies and other appropriate organizations related to program responsibilities and this response plan.
- 2) Provide forest management expertise and advice and liaison with cooperators (particularly the Forest Products and Tree Care Industries, private forest land owners) and the public.
- 3) Provide Liaison with the USFS and National Association of State Foresters through the Maryland State Forester to request further assistance and funding.
- 4) Assist with eradication and containment
- 5) Assist with restoration and mitigation
- 6) Provide environmental assessment and review
- 7) Assist with permitting activities when appropriate

D. United States Department of Agriculture Forest Service (USFS) is the lead Federal agency to prevent the introduction of forest and plant pests into Federal lands. The USFS through its State and Private Forest Health Protection Group also assists in the evaluation and eradication of exotic forest insect and disease pests as well as the management of new pests should they become established.

- 1) Assist other agencies as needed in the detection, evaluation, eradication, and monitoring of new exotic pest introductions.
- 2) Create new awareness of invasive pests through information, education and technology transfer.
- 3) Improve management of new and established exotic pests through the development of new technologies.
- 4) For established exotic pests, provide technical assistance for control activities, including development of NEPA documentation, project planning documents, aircraft calibration, radio communication, and coordination of threatened and endangered species consultations.

E. The University of Maryland Cooperative Extension (MCE) is the State agency responsible for research and assisting technical transfer of information to cooperators and the public.



- 1) Complete research into the biology and management of exotic pests.
- 2) Create increased awareness of invasive pests through information, education and technical transfer.
- 3) Assist with identification, detection and diagnostics of new invasive pest species.
- 4) Seek funding for research, diagnostics and detection.
- 5) Provide liaison to the plant nursery industry.



IV. Members of the Forest and Tree Invasive Species Incident Command System

A) Incident Command Group (ICG)

1. PURPOSE: The ICG will coordinate the overall response, approve action plans, and serve as final authority on all activities and decisions.

2. MEMBERS:

- a. Incident Commander, Maryland Department of Agriculture, State Plant Regulatory Official
- b. Maryland Department of Agriculture, Chief, Forest Pest Management
- c. Maryland Department of Natural Resources, State Forester
- d. USDA APHIS, State Plant Health Director
- e. University of Maryland, Cooperative Extension, State Agriculture & Natural Resource Program Leader
- f. Team Leaders as needed:
 - 1) Planning and Finance
 - 2) Operations
 - 3) Communications
- g. Others as determined by the Incident Commander



3. TASKS:

The Incident Commander will:

- upon official verification of an invasive species detection, convene a meeting of the ICG
- appoint individual Team Leaders to coordinate efforts on each Team and to serve on the ICG

The ICG will:

- make the decision to initiate the Emergency Response Plan
- have overall command of the incident
- assess pest risk and determine the appropriate response method

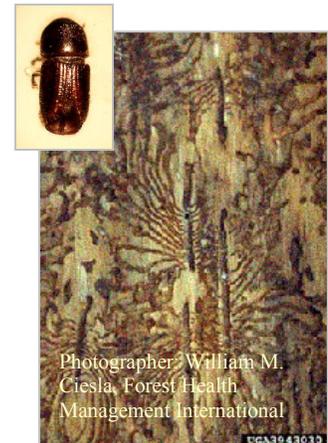
- approve a response plan
- mobilize Teams as needed
- initiate appropriate state and federal quarantines
- assign actions to be taken by Team Leaders
- coordinate and approve all Team activities
- resolve issues not easily addressed by any Team

B) Planning and Finance Team

1. PURPOSE: The Planning and Finance Team shall provide effective planning, obtain appropriate resources, and conduct proper administrative management of the legal, fiscal and technical aspects of the Incident Response. Once informed of an incident, the Planning and Finance Team will consult with the Incident Commander and the Operations Team and others to evaluate and assess the scope of the event and together develop the Incident Action Plan. As planning and finance activities occur, the Team will provide information to the IC, Operations Team and Communications Team. Members of the Team will receive direction from the IC and work closely with the other teams.

2. MEMBERS:

- a. Chief, Plant Protection and Weed Management
- b. Chief, Forest Pest Management
- c. Director of Maryland Forest Service
- d. Representative of the Operations Team
- e. Representative of the Communications Team
- f. Adjunct Members will include representatives of:
 - 1) MD DNR Wildlife and Heritage
 - 2) MD Dept. of the Environment
 - 3) MD DHMH
 - 4) MDA Pesticide Regulation
 - 5) Local jurisdiction Park & Planning
- g. Municipal government or Community organization
- h. Others the Team Leader feels are needed, potentially including but not limited to, individuals from the represented organizations who have needed expertise/capability in:
 - Grant writing;
 - Procurement;
 - Writing commodity or service contract specifications;
 - NEPA and other environmental regulations, and other legal issues; and
 - Geographic Information Systems.



3. TASKS:

Once informed of an incident, the Planning and Finance Team will consult with the Incident Commander and the Operations Team and others to evaluate and assess the

scope of the event and together develop the Incident Action Plan. Within the Incident Action Plan there will be the following tasks and responsibilities for the Planning and Finance Team. Each of these responsibilities is carried out in consultation with and in coordination with the Operations Team and others within the structure of the Incident Command Group.



- Assessment and monitoring:
 - Continually monitor and be aware of scope and severity of the situation.
 - Review monitoring data and monitoring effort needed.
- Determine the amount and type of response effort needed including:
 - Type and amount of material, equipment and services that may be needed
 - Personnel resources needed, including capabilities/expertise and amount of workers or person hours needed.
 - Interface needed with landowners, other agencies and general public as necessary.
 - Permits and environmental requirements.
- Determine funding sources (federal, state, local):
 - Make contacts – reference grant/funding availability and requirements
 - Write grants
 - Satisfy NEPA requirements and deadlines
 - Determine need of, and coordinate to obtain, environmental permits
 - Satisfy grant reporting requirements
- Budget and financial management:
 - Closely monitor and manage expenditures and available resources.
 - Anticipate future resource needs.
 - Keep the Incident Commander apprised of current financial and resource status.

C) Operations Team

1) PURPOSE: The Operations Team will implement the “on the ground” management of the invasive species incident. This Team will be responsible for field operations to determine the scope of the infestation, implement management options (including quarantines if necessary), conduct follow up assessments and restore impacted areas. As field operations are implemented, the Team will provide information to the IC, Planning and Finance Team and Communications Team. Members of the Team will receive direction from the IC and work closely with the Planning and Finance Team.



2) MEMBERS:

- a. Maryland Department of Agriculture, Plant Protection and Weed Management, State Survey Entomologist
- b. Maryland Department of Agriculture, Forest Pest Management, State Forest Entomologist
- c. USDA APHIS PPQ: State Plant Health Director (or designee)
- d. Maryland Department of Natural Resources, Maryland Forest Service, Regional Foresters or staff
- e. Adjunct Members may include representatives from:
 - 1) Maryland Department of Agriculture: Pesticide Regulation Section
 - 2) Maryland Department of Environment: Permitting
 - 3) Maryland Department of Health and Mental Hygiene
 - 4) USDA Forest Service
 - 5) Local county permitting and review agencies
 - 6) Local, municipal and community groups
 - 7) Maryland Nursery and Landscape Association
 - 8) Maryland Arborist Association

3) TASKS:

Upon direction from the Incident Commander, will convene and determine the appropriate response action including:

- Delimit the scope of the infestation
- Conduct trace-back surveys to determine source of infestation
- Develop survey methodologies
- Conduct evaluation surveys
- Implement management and quarantine options
- Conduct follow-up surveys
- Implement restoration efforts
- Inform Incident Commander of survey results
- Coordinate with Planning and Finance Team the scope of activities and need for funding and permits



D) Communications Team

1) PURPOSE: The Communications Team will develop a communications strategy, serve as spokesperson, issue press releases, advisories, and otherwise manage media and public relations as directed by the ICG and the IC. This team will also develop and deliver educational programs to assist the public in understanding prevention, detection and control mechanisms for specific pests and diseases.

2) MEMBERS:

- a) Maryland Department of Agriculture, Public Information Officer
- b) USDA APHIS

- c) Maryland Department of Natural Resources, Public Communications Officer
- d) USDA Forest Service
- e) University of Maryland Cooperative Extension, Media Specialist
- f) Others as determined by incident and team



3) TASKS:

- All agencies will collaborate to communicate accurate information quickly and broadly in a manner that supports the prevention, identification and control of a possible infestation.
- Upon direction from the Incident Commander, will convene and determine the appropriate communication strategy that will be made a component of the Incident Action Plan and may include consideration of targeted audiences and approval mechanisms.
- Spokespersons will be chosen by each agency. Typically, when a spokesperson is chosen, that person will act as spokesperson throughout the entire event in order to provide continuity.
- Spokespersons will be members of the Communications Group and approved by the Incident Commander.
- The team will also provide assistance with drafting press release(s) for local government and provide local support as needed.
- The team will coordinate activities with technical experts to ensure their availability to assist in press briefings when needed.
- This team will keep cooperating agencies, legislative liaison, Department Secretaries and appropriate Directors, apprised of all activities as appropriate.
- The Incident Commander will approve press releases issued by the State.
- The need for press conferences will be determined by the Communications Group and approved by the Incident Commander.



V. Notification and Mobilization:

- A) In the event of an invasive species detection by any agency or cooperator, that agency or cooperator will notify MDA and upon official verification by the USDA APHIS laboratory, the MDA will initiate the Emergency Response Plan for Forest Invading Species.
- B) Once a positive invasive species identification and confirmation is determined within Maryland requiring resources of other agencies and cooperators, the Incident Commander will convene a meeting of the ICG. The ICG will make the decision to activate the Emergency Response Plan. Appropriate personnel will be assigned to assist the three working teams and a Project Leader will be selected to manage the event by the ICG.

- C) The Planning and Finance Team and the Operations Team shall consult to assist the Incident Commander in determining an appropriate response and to begin to develop the Response Plan.
- D) The Response Plan will address internal and external communication.
- E) The Response Plan will also lay out in detail the role and responsibilities of each of the work teams and delineate and assign sufficient support staff appropriate for mission success.
- F) The Response Plan will address the need for core and delimiting surveys and provide an evaluation of the risk of spread.
- G) The Response Plan will clearly address budget, record keeping and documentation necessary for the response effort.

VI. Direction and Control:

- A) In recognition of the differing responsibilities of any participating agencies, cooperators etc., the MDA and USDA APHIS will be the lead agencies. Other organizations may assist and lead agencies in many ways, but should not make survey or eradication decisions on their own. In general, all participating agencies and cooperators will communicate frequently and follow all proper communication channels required for a coordinated response led through the Incident Commander, MDA and USDA APHIS.
- B) Work force organization will reflect the needs of the event including staff assignments for each of the three work teams.
- C) Issues that cannot be resolved within the individual work teams will be brought to the ICG for resolution.



Glossary

APHIS - Animal and Plant Health Inspection Service

CFR - Code of Federal Regulations

COMAR - Code of Maryland Regulations

DNR - Maryland Department of Natural Resources

IC - Incident Commander

ICG - Incident Command Group

ICS - Incident Command System

MCE - Maryland Cooperative Extension

MD. [Agric.] Code Ann - Annotated Code of Maryland, subject Agriculture

MDA - Maryland Department of Agriculture

NEPA - National Environmental Policy Act

NRCS - USDA Natural Resources Conservation Service

PPQ - USDA APHIS Plant Protection and Quarantine

USDA - United States Department of Agriculture

USFS - USDA Forest Service

Eradication - the complete destruction of every trace of something

Incident Commander - Person responsible for overall coordination

Incident Action Plan - Specific response recommendations to an incident