

**Virginia Invasive Species Council
December 13, 2005
Tyler Haines Commons
University of Richmond**

Virginia Invasive Species Council Members Present

W. Tayloe Murphy, Jr. Secretary of Natural Resources, Chair
Joseph H. Maroon, Department of Conservation and Recreation
Robert B. Stroube, Department of Health
Carl Garrison III, Virginia Department of Forestry
Roger Mann, VIMS for John T. Wells
Frank Fulgham, VDACS for Carlton Courter III
Ray Fernald, VDGIF for W. Gerald Massengill
Brian Waymack, VDOT for Gregory A. Whirley

Virginia Invasive Species Council Members Not Present

William A. Pruitt, Marine Resources Commission

Staff Present

David C. Dowling, DCR
Michael R. Fletcher, DCR
Kevin Heffernan, DCR
Rick Myers, DCR
Thomas L. Smith, DCR

Advisory Committee Members Present

James Akerson, National Park Service
Ruth Douglas, Virginia Native Plant Society
P. Loyd Hipkins, Virginia Tech
Scott P. Johnson, VDOT
Rachel Muir, U.S. Geological Survey
Steve Nash, University of Richmond
Shepard M. Zedaker, Virginia Tech

Others Present

Andy Alvarez, VDACS
Debra Martin, VDACS
Nikki Rovner, The Nature Conservancy
Peter D. Smallwood, University of Richmond
Sara Stamp, MPPDC, Dragon Run SAMP
Bill Tanger, FORVA

Call to Order

Secretary Murphy called the meeting to order and welcomed attendees to the fourth meeting of the Virginia Invasive Species Council.

Secretary Murphy gave the following remarks:

As those of us in this room well know, invasive species are found throughout the United States and cause damage to our natural ecosystems, crops, and waterways, that is estimated to cost between 1.4 and 3 Billion dollars annually here in Virginia alone. Second only to habitat destruction, invasive species pose the greatest threat to Virginia's and the nation's native ecosystems. The threat comes from both terrestrial and aquatic plants that take over and eliminate native plants from their habitats, such as garlic mustard eliminating Virginia bluebells from bottomland forests, to Phragmites displacing native plants and animals in wetland systems. Invasive animals such as the zebra mussel and snakehead fish threaten native freshwater systems.

The Virginia Invasive Species Council was formed to provide state leadership regarding invasive species. It has been my hope that the Council would serve to provide a common voice on invasive species for Virginia, and a forum that facilitates agencies working together to educate the public and each other to find constructive approaches to address this important issue.

In the face of limited resources, I believe today's meeting, and the consideration of Virginia's first statewide Invasive Species Management Plan is a very significant step forward. Virginia has needed a roadmap to help point us in the most cost effective and strategic direction on this issue, and I believe we now have that roadmap. Much work remains to be done and there is a very real need to bring serious resources to bear before our wetlands, forests and other natural habitats are forever altered by invasive species.

Secretary Murphy said that the Virginia Invasive Species Council was formed to provide state leadership. He said that the creation of the Council occurred as a result of the leadership of Professor Steve Nash and his students at the University of Richmond. Their work brought the issue to the attention of the General Assembly. Secretary Murphy thanked Professor Nash for his work.

Professor Nash thanked Secretary Murphy and recognized Dr. Peter Smallwood for his work in the University biology department with regard to invasive species.

Secretary Murphy said that Governor Warner's announcement that day regarding a substantial deposit into the Water Quality Improvement Fund acknowledged an overall

commitment to Natural Resources in Virginia. However, he noted that funding for Natural Resources continues to be about one percent of the entire state budget.

Secretary Murphy noted that Natural Resources is one of two areas that are mandated by the State Constitution. The second is public education.

He thanked DCR staff and the members of the advisory committee for their work in the development of the draft plan.

Approval of Minutes of December 15, 2004

MOTION: Dr. Stroube moved that the minutes of the December 14, 2004 meeting of the Invasive Species Council be approved as submitted.

SECOND: Mr. Garrison

DISCUSSION: None

VOTE: Motion carried unanimously

Review of Draft Virginia Invasive Species Management Plan

Mr. Smith gave the following remarks:

So often in the present day we do not take any action until the crisis is upon us, and when that crisis is averted, or simply slips from the headline news to a few pages back, we forget and move on. For today's discussion the crisis is in the realm of invasive species and it may be in the form of Bird Flu, Zebra Mussels, Snakehead fish, phragmites or some other plant, animal, or virus that catches the public's attention.

In 2003, the General Assembly and Governor Warner signed the VA Invasive Species Act into law.

Charge one was to ensure that state agency activities with regard to invasive species were coordinated, complementary, cost-efficient and effective. The actions of this Council have begun to chart that path.

Charge two was to develop an Invasive Species Management Plan by December 2005, or as soon thereafter as funds allowed. To the surprise of those of us that were aware of that pending charge back in Dec of 2002 and Jan 2003, the collective efforts of many in this room and others not present have made significant progress on developing a draft plan for consideration today. The VA Invasive Species Management plan presents Virginia's first ever Road Map on how to plan for and avert and ever impending colossal train wreck!

The draft plan grew out of the Sept 2004 Council meetings charge to the Advisory Committee to develop a plan outline. The Advisory Committee met in October 2004, agreed upon an outline, and brought it to the Council in December 2004. Over the past year the Advisory Committee working with DCR staff have developed the draft to be discussed today.

I'll note that the draft has been developed keeping an eye on the National Aquatic Nuisance Species Task Force guidelines for a state approved plan, so that once the Council has an approved plan, it can be submitted to the National Task Force for consideration.

Mr. Smith recognized Mr. Heffernan for the presentation of the draft plan. A copy of the draft plan is available from DCR.

Mr. Heffernan gave the following presentation.

1. **Cooperation.** Managing invasive species requires all the wide range of skills and perspectives that state government agencies along with our partners in local and federal agencies and non-governmental organizations can bring together. Not everyone will conduct invasive species control or ecosystem restoration activities, nor will all be directly engaged in prevention measures. All stakeholders will not always agree on all issues. Nevertheless, the goals of this plan require understanding of the views and roles of each stakeholder and ongoing coordination and communication.

Goal 1: Coordinate state, federal and stakeholder prevention and management of invasive species infestations.

Strategy 1.1:

Memorandum of Understanding (MOU) for presentation to state agencies

Make the Virginia Invasive Species Council a permanent body

VISC Advisory Committee

Establish a sub-committee for oversight of each of the goals

Strengthen state partnerships with local governments, federal agencies, and other stakeholders

Establish a conflict resolution process

Strategy 1.2:

Conduct authoritative evaluation of current statutes and rules relevant to invasive species.

Identify jurisdictional and legislative needs for invasive species prevention, detection, response, control, research, and education.

Identify funding needs for invasive species prevention, detection, response, control, research, and education.

Strategy 1.3:

Define clear, quantifiable outcomes for management actions.

Require reporting of progress and accomplishments in the implementation of invasive species management plan strategies and actions.

- 2. Prevention.** A wealth of evidence now shows that invasions by non-native species are increasing exponentially. This can only be partially explained by the fact that there is more awareness and effort to detect invasives because even well known ecosystems are seeing a greater number of infestations. Control of invasive species infestations is expensive and often of limited success. Therefore, prevention of the establishment of invasive species is widely seen as the primary goal of sound protection and management of biological resources. We need a fair but thorough system for screening the organisms we allow into the Commonwealth. As a society, we agree that not just anyone can drive a car or fly a plane. We have a fairly straightforward way of screening drivers and pilots. By doing so, we save lives, avoid pain, and reduce costs to our society. Our bodies have filters that screen the air we breathe, the water we drink, and the food we eat. Prevention is just common sense. In Virginia, many filters that screen the importation of living organisms are already in place. However, they could be improved to match the scale and complexity of modern trade and travel practices that have increased the rate of nonnative species introductions. We must apply the lesson we have learned that what looks like a pretty flower or a cute little fish from a faraway land could turn into a very expensive management project.

Goal 2: Prevent known and potential invasive species from entering the state through detecting and interrupting all unauthorized species introductions.

Strategy 2.1.

Coordinate with federal agencies to ensure assessments are conducted of all **pathways** and potential pathways of intentional and unintentional introductions, including commodities and transportation vectors.

“**Pathways**” or “**vectors**” are the means by which species are transported from their native range into new regions. Ballast water, shipping containers, tourist

luggage are examples of species pathways. There are natural and artificial pathways; for the purpose of invasive species management, we focus on artificial pathways that are mostly associated with global trade and travel, which are now the primary means for new introductions around the world. "Pathway interruption" focuses stopping unauthorized species introduction at ports of entry and borders.

Strategy 2.2:

Encourage cooperation between federal and state agencies in the development and implementation of invasive species risk management partnerships at all significant ports of entry in Virginia.

USDA
DOI
EPA

3. **Early Detection** efforts support the goal of prevention and the rationale for this goal stems from the same understanding that "nipping it in the bud" requires far fewer resources than spraying chemical on hundreds of acres of some weed or electrofishing numerous waterbodies to stamp out one species. Early detection is aimed at species that have evaded pathway management efforts but are not yet well established. This is an area in which public volunteer effort could be effectively engaged.

Goal 3: Strengthen and support an early detection network capable of identifying and reporting the appearance of invasive species before they can become established and control becomes less feasible and more costly.

Strategy 3.1:

Survey and evaluate current monitoring programs/networks, including volunteer networks, identify geographic gaps, and make recommendations to improve detection efforts across institutional and jurisdictional boundaries.

Strategy 3.2:

Support the refinement and growth of existing federal, state, and volunteer early detection networks and encourage communication of findings across these networks.

Early detection provides feedback on decisions to allow new species introductions facilitate re-evaluating those decisions if a new species shows unexpected behaviors.

4. **Rapid Response** follows early detection of a new introduction of an invasive species. Much groundwork is already laid for rapid response capability. Cooperation and communication across agencies and with partners would greatly improve prospects for success. Most important, however, are readily accessible funds for rapid response operations.

Goal 4: Develop a rapid response capability to implement eradication or containment procedures for target species identified by early detection before the species can become permanently established.

Strategy 4.1:

Form a rapid response network of state and federal agencies and other stakeholders that individually or in concert can provide rapid response implementation.

Strategy 4.2:

Catalog existing plans

Prepare plans for **potential high priority invasive species**. Incorporate these plans into the state emergency plan under the state homeland security system.

Potential high priority invasive species are those that are not yet established in the Commonwealth but have a high likelihood of being introduced unintentionally. Contrast to *established* invasive species.

Strategy 4.3:

Identify current available funds or fund sources for rapid response implementation and assess needs for more funding authority.

Establish emergency funds through legislative action.

5. **Control and management** is underway for numerous species in Virginia and the U.S.. Interagency cooperation and planning could ensure that knowledge and experience is being shared and limited resources are targeting species that can be managed effectively (Feasibility vs. Impact, e.g., Japanese honeysuckle vs. Phragmites). Furthermore, because invasive species do not respect property boundaries, this goal calls for technology transfer and funding assistance to private landowners dealing with invasive species (e.g., Phragmites).

Goal 5: Provide control of established invasive species through containment, abatement, and other management strategies to minimize environmental and economic impacts.

Strategy 5.1:

Develop and implement management plans for *established* high priority invasive species through a partnership/stewardship approach.

Identify information, staff, research, and budget needs to improve invasive species management in Virginia.

Strategy 5.2:

Evaluate potential incentive and assistance programs for private landowners for the control of invasive species and make recommendations to the Virginia General Assembly to establish or enhance these programs.

6. **Research, Monitoring, and Risk Assessment** strategies seek to provide critical information and decision-making tools necessary to clearly define management actions. Research also provides feedback on the success of management strategies. Risk assessment assists decision-makers in prioritizing strategies and actions. Significant research and monitoring efforts are currently underway at the Federal agencies (chiefly USDA, DOI and EPA) and universities. The principal role of State agencies will be to provide guidance to these institutions on research, monitoring and risk assessment needs and to provide feedback to researchers on the effectiveness of the management tools they develop.

Goal 6: Support or conduct research and risk assessment necessary to assess, prioritize, and control invasive species.

Strategy 6.1:

Identify priority research needs in cooperation with federal agencies and university research departments.

Support priority research needs with adequate staff and funding.

Strategy 6.2:

Identify current risk assessments completed for invasive species already established in Virginia and identify needs for further analysis. This process should result in a list of “*established* high priority invasive species,” which are 1) currently established in Virginia, and 2) widely recognized as a threat to ecological or economic resources.

Participate with federal agencies and other stakeholders in the development of a fair comprehensive screening system for evaluating first-time intentionally introduced non-native species.

Working with federal agencies and nongovernmental stakeholders, develop an “approved list” of species allowed into the Commonwealth.

Implement a process for identifying potential invasive species that are likely to be introduced unintentionally and for which rapid response tools are necessary.

Develop a “black list” of *potential* high priority invasive species that would be targeted by rapid response actions.

7. **Education and Outreach** supports all the other goals of the plan. Members of the general public require information and technical specialists need training to play their parts in stemming the threat from invasive species. We must provide current and readily accessible information concerning invasive species, their threats, and state-of-the-art methods for their management.

Goal 7: Provide current information on invasive species, their negative impacts to environmental and economic resources, and methods of prevention and control to the general public and special interest groups.

Strategy 7.1:

Research existing literature on public awareness and attitudes regarding invasive species.

Conduct new public opinion survey to clarify, update, or fill gaps in understanding of Action 7.1.1.

Prepare a report to the VISC on findings and make recommendations on education needs.

Strategy 7.2:

Compile current materials and make available through the Invasive Species Council web site.

Strategy 7.3:

When currently unavailable, develop educational materials that raise awareness of the need to prevent future introductions of invasive species.

Secretary Murphy thanked Kevin for the presentation and asked for comments regarding the plan.

Mr. Maroon said that staff and members of the committee should be commended for the development of the plan. He noted that the plan is an important step but it is not the end

of the problem. He said that his concern was that the provision for the Council was set to expire in 2006 and noted that the Council should consider the plan would be implemented if the Council is continued.

Mr. Maroon said that it was important to show how agencies can be cooperative in addressing invasive species.

Mr. Mann echoed Mr. Maroon's comments and applauded the work on the document. He said that the document provides a framework for the continued work that is already occurring with member agencies.

Mr. Tanger said that he hoped legislation would be approved to continue the Council and noted that the proposed legislation would continue the Council until 2011. He said that there were two areas that should be addressed, the first being public education. He suggested that a list of the "dirty dozen" invasive species be prepared and that there be consideration given to the regulatory control of the sale of invasive species.

Secretary Murphy said that cooperation between the agencies was key. He asked that agency heads take the plan to their respective Secretariats and request that each Secretary join in the request to extend the Council and to provide necessary funding.

Concern was expressed by members regarding information provided in the plan appendices.

MOTION: Mr. Maroon moved that the Virginia Invasive Species Council approve the draft plan as submitted by staff but that partner agencies review the appendices and submit comments directly to DCR for appropriate revisions within the next two weeks.

SECOND: Mr. Fernald

DISCUSSION: None

VOTE: Motion carried unanimously

Mr. Maroon again expressed appreciation to those who worked on the development of the plan.

Ms. Rovner said that The Nature Conservancy would be supporting the legislation for the continuation of the Council. She offered to coordinate the private organizations in support of the legislation.

Preview of Invasive Species Council Website

Mr. Heffernan gave an overview of the Invasive Species Council website. He said that he would be providing a draft to members prior to the site going live.

Mr. Smith said that at the last meeting the Council had asked for the development of a Virginia high priority list. The Advisory Group focus has primarily been on the management plan, but that a list was developed that would be the priority for the next several months.

Mr. Mann said the purpose of publishing a list was to demonstrate that invasive species are everywhere. He said the list doesn't need to be exhaustive, but is representative of the issue.

Mr. Tanger noted that the list could also be revised on a regular basis.

Secretary Murphy noted that the consensus of the Council was that staff move forward with a public education plan to be brought back for Council approval. He directed the Advisory Group to proceed in that manner.

Mr. Maroon said that it would be helpful to make anything produced available via the website.

Mr. Smith clarified that there were two items for discussion. One was the development of a highly invasive list. Second was the development of a public relations piece of information.

Dr. Smallwood said that the public information piece should highlight those species that have already caused huge problems. He suggested moving forward by using the nine invasive species identified in the report.

Mr. Maroon said that DCR would move forward with identifying the nine on the website. He said also that the Advisory Group should come back at the next meeting with a more detailed public education plan.

Secretary Murphy confirmed that the Council wished to move forward with focusing on the nine invasive species identified by the Bay program and that these be highlighted on the website. Further the Advisory Committee would be tasked with developing a firm recommendation on how to move beyond the website in terms of public education and publications.

Invasive Species Council Funding and Legislative Update

Mr. Smith reviewed the Plan Implementation Table. He noted that 47 actions were outlined in the plan with annotations on the lead entities, time frames and costs. He noted the following highlights were viewed as priority by the Advisory Committee:

Goal 1. Coordination

- Make the Council a permanent body with funding.
- Maintain the VISAC as a stakeholder forum and develop subcommittees for each goal – at present we do not have the resources to support 10 –12 meetings/year
- Begin evaluation of current state laws

Goal 2. Prevention

- Pathway analysis work complex, postponed until adequate resources exist

Goal 3. Early Detection

- Survey existing early detection networks,
- Encourage growth of existing federal, state, and private networks

Goal 4. Rapid Response

- Catalog existing plans and identify existing funds for rapid response; and assess need for additional plans and funds – this step is essential before real resource targets can be discussed; this action is a priority need and efficient use of funds

Goal 5. Control and Management

- Identify & Implement control efforts for high priority species – some that are already here and need action
- Incentive programs for private landowner control projects – high potential, Phragmites work for example

Goal 6. Research and Risk Assessment

- Develop list of high priority invasive species
- Identify needs and seek funding for priority research needs to address widespread and highly problematic species.
- Fully evaluate potential for “approved species” list
- Develop “black list” for rapid response

Goal 7. Education and Outreach

- Make invasive species information available via Internet
- Evaluate public awareness programs
- Develop new public information materials
- Encourage on-the-ground action programs via Internet
- Funding Update

Mr. Smith noted that at the last meeting The Nature Conservancy challenged the Council members by pledging \$12,000 in matching funds to support the Council’s work, and the agencies matched that pledge with \$13,000 for a total of \$25,000

As of October 31, \$16,000 had been expended, and I estimate we’ve spent another \$2,500 in November; leaving \$6,500. In addition, \$2,000 has been committed toward the web

site via a contract with the University of Richmond, and \$3,000 has been reserved for printing the Management Plan.

Council Agency Updates

Department of Agriculture and Consumer Services

Mr. Fulgham gave the update from the Department of Agriculture and Consumer Services.

VDACS has been working with the U.S. Department of Agriculture to develop an emergency action plan. The plan spells out how the agency addresses plant health issues.

The plant pathology laboratory has been moved to a new building. The agency is now able to do DNA analysis of plants.

VDACS has developed a soybean action plan in conjunction with Virginia Tech. This is in response to a projected arrival of soybean rust in 2005. Fortunately soybean rust only made it as far north as North Carolina. The plan was accepted positively by the agriculture community and the Farm Bureau.

A similar plan deals with sudden oak death. The department has worked with the public, including master gardeners and extension agents to train these individuals as well as homeowners with regard to the symptoms of sudden oak death.

The agency has formed a risk assessment group with USDA and Homeland Security. This group meets on a quarterly basis. VDACS receives a monthly report on the pests detected coming into Virginia.

The agency eradicated a large infestation of Emerald Ash Bore in Northern Virginia and continues to work on the eradication of giant salvinia in Shenandoah County.

Virginia Institute of Marine Science

Mr. Mann noted that several attendees were participants in the Mid-Atlantic Aquatic Nuisance Species work group. There is representation from New York to Virginia with a wide representation of agencies involved in aquatic resources. The group exchanges resources to provide guidance and information.

VIMS is working on the collection of large oriental weevil through a bounty collection program. Over 11,000 animals have been collected. The range was predominantly in the Hampton Roads area with some expansion along the James River and the Tangier Sound.

The International Maritime Organization has passed guidelines regarding ballast water discharge. This organization controls 30-35% of all shipping.

Congresswoman Joanne Davis has been working with the marina associations to remove abandoned navy and commercial ships in the James River. These are being moved to a facility in Europe to be disassembled.

Mr. Mann said that he was present at the Governor's Water Quality announcement. He applauded Secretary Murphy as an outstanding champion of Virginia's natural resources.

Marine Resources Commission

Not represented.

Department of Forestry

Mr. Garrison said that the Department of Forestry was working closely with VDACS regarding Emerald Ash Bore.

DOF is also working with nurseries and is monitoring adjacent forests for Sudden Oak Death.

DOF forest inventory and analysis teams are trained to identify and report any invasives within their plant inventory in their sites.

Gypsy moth is slowing, but is still being monitored.

DOF is working with the American Chestnut Foundation to develop a species resistant to the American chestnut blight.

The Department makes recommendations for controlling invasive species in the stewardship plan provided to land owners.

Department of Game and Inland Fisheries

Mr. Fernald gave the report for the Department of Game and Inland Fisheries.

Mr. Fernald said that it had been a busy year. There have been several issues relating to regulatory actions, including changes in all three of the department's regulatory lists: the nuisance species list, the predatory undesirable species list and the non indigenous aquatic nuisance species list.

Some of the species added to the lists include black carp, New Zealand mudsnail and rusty crayfish. None are currently in Virginia, however the rusty crayfish has been found in the Clinch and Holston River basins in Tennessee.

DGIF has also taken action with regard to a number of crayfish species. The department is working with pet shops and bait shops. The regulation makes it illegal to sell crayfish in Virginia. However, they can still be imported and sold for personal consumption. They cannot be kept as pets and cannot be collected and sold as bait.

In addition to the regulatory actions, DGIF has been dealing with three main issues.

The snakehead fish is still present in Virginia. Due to a modification of the regulations fishermen now kill and turn over the snakehead to DGIF for research purposes.

A chronic wasting disease has been found in deer in West Virginia. DGIF is monitoring lands and animals captured in counties adjacent to West Virginia.

The Department continues to deal with zebra mussels. DGIF has now signed a contract to treat the entire affected quarry. Funding was provided through federal funds.

Department of Health

Dr. Stroube gave the report for the Department of Health. The Department is mostly concerned with microbiological agents that impact human health such as West Nile virus and SARS.

The Department is concerned with the potential outbreak of avian flu.

Department of Transportation

Mr. Waymack gave the report for the Department of Transportation.

He said that in trying to maintain several thousand road miles, VDOT deals in some form with at least three of the nine species identified in the report.

VDOT continues to maintain the greentag seeding program cooperative agreement with VDOT, Virginia Cooperative Extension, VDACS and Virginia Tech to use certified seed in maintenance and construction.

Kudzu and Johnson grass continue to be problematic.

VDOT has hired certified arborists and pesticide applicators to deal with issues of pruning. This impacts issues of right of way.

VDOT also is contending with phragmites in some of the stormwater facilities and wetlands. The Department is working with Virginia Tech to conduct training for certified applicators.

Department of Conservation and Recreation

Dr. Myers gave the report for the Department of Conservation and Recreation.

DCR has been working on the control of invasive species on over 100,000 acres of Department managed land.

The focus has been on phragmites management, particularly in the eastern part of the state. These are treated in October and November because of a long period of growing time. Most of the other native marsh species have gone dormant at that time.

DCR treated 517 acres of phragmites in 2005. Through cooperative efforts with VDACS, DGIF, VIMS and The Nature Conservancy over 2,100 acres have been treated.

Public Comment

There was no additional public comment.

Schedule Next Meeting

Secretary Murphy said that it would be best to wait until after the General Assembly Session and hopeful enactment of the legislation to schedule the next meeting date.

Other Business

Mr. Maroon noted that Secretary Murphy would not be the chair at the next Council meeting. He expressed appreciation to the Secretary for his leadership and support.

Secretary Murphy said that he was grateful for the opportunity to return to public service that Governor Warner provided him.

Adjourn

Being no further business, the meeting was adjourned.

Respectfully submitted,

L. Preston Bryant, Jr.
Chair

Joseph H. Maroon
Recording Secretary