

Martin O'Malley, Governor Anthony G. Brown, Lt. Governor John R. Griffin, Secretary Joseph P. Gill, Deputy Secretary

January 17, 2012

The Honorable Joan Carter Conway Chair, Senate Education, Health and Environmental Affairs Committee 2 West Miller Senate Office Building Annapolis, Md. 21401

The Honorable Maggie L. McIntosh Chair, House Environmental Matters Committee 251 Lowe House Office Building Annapolis, Md. 21401

Dear Chairwomen Conway and McIntosh:

Senate Bill 666 of 2009 directed the Department of Natural Resources, in consultation with forestryrelated stakeholder groups, to report on proposals for the development of policies to achieve no net loss of forests in our State. The attached report includes recommendations from both the Department's Sustainable Forestry Council and the Ecosystem Services Working Group.

The Department supports the Sustainable Forestry Council's proposed definition of no net loss of forests and recommendation that we strive to ensure that at least 40 percent of land in our State is covered by forest. Forest should be defined and tracked using the State's land use/land cover classification system from the baseline year of 2007, using statewide satellite imagery with periodic 5 year reassessments. The Department also supports the Ecosystem Services Working Group's recommendations on forests, which are designed to encourage mitigation banking as a means of more efficiently replacing forests lost to development. In addition to addressing forest cover, a no net loss of forest policy should also address issues affecting the environmental benefits and economic health of forests, such as low rates of sustainable private forest management, declining forest industry infrastructure, pests and pathogens, and climate change.

The actions outlined in the attached report build upon existing efforts to create sustainable jobs, restore the Chesapeake Bay, promote smarter growth and protect the health of all Marylanders. We look forward to working with you to advance these recommendations.

Sincerely

John R. Griffin Secretary

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Report on Policies to Achieve No Net Loss of Forests in Maryland

December 2011

I. Recommendations from the Sustainable Forestry Council

Over the past several years, multiple reports, directives and laws have made plain that working lands like forests and farms are critical to Maryland's economy, community and environment. These have included the Sustainable Forestry Act of 2009, Chesapeake Forest Conservation Directive 06-1¹ and The State of Chesapeake Forests report.²

The Sustainable Forestry Council utilized the findings of these previous efforts and new information to advise the Department of Natural Resources on timely forest conservation issues and appropriate actions to help Maryland implement a no net loss of forest policy. The recommended actions build on existing programs and regulations including the recent development of Watershed Implementation Plans to meet the Total Maximum Daily Load requirements for the Chesapeake Bay, the Forest Conservation Act, and local planning and zoning requirements.

As working lands, many issues unite farms and forests including development pressure, economic markets, pests and pathogens and invasive species. In many cases, landowners deal with both land uses at the same time, given that 40% of all forests in Maryland occur as part of a farm. The Council has taken care to develop recommendations that support a no net loss of forests policy that are complementary to the state's broader goals for maintaining healthy and productive farms and forests.

Why act now?

Whether a resident of Maryland lives in a rural, suburban or urban community, he or she receives vital benefits daily from working lands like farms and forests. These benefits include clean water, clean air, drinking water, flood control, wood products, food, wildlife habitat and recreational opportunities. Despite the fundamental importance of these benefits to the state, their continued provision is threatened by forest conversion and actions are needed now to sustain them as our population grows and development pressures assert themselves.

The rate of loss of farms and forest land throughout the State has fluctuated over the past several decades and is closely tied to economic conditions. Overall, Maryland lost approximately 873,000 acres of farmland from 1950 to 2007 and, between 1950 and 2011, an average of 7,000 acres of forest

¹ Protecting the Forests of the Chesapeake Bay Watershed. Chesapeake Bay Program. 2006. <u>http://www.chesapeakebay.net/ec2006.aspx?menuitem=19350</u>

² Sprague et al. The State of Chesapeake Forests. The Conservation Fund. 2006.

per year. The state has a high standard of living and will continue to attract new residents even in a weakened economy. For example, the Department of Defense's Base Closure and Realignment Commission (BRAC) projections, among others, will increase the State's population by 1,100,000 people by 2030.

The loss of forests and other working lands is occurring parcel by parcel across the State. In 2006, the Governor's Commission for Protecting the Chesapeake Bay through Sustainable Forestry noted the primary threat to forests is the "development of forests due to uninformed local land use decisions leading to the parcelization and fragmentation of forests and conversion to non-forest uses." There are numerous opportunities now for local governments to better incorporate forest conservation into land use planning. Local governments are currently developing federally mandated Watershed Implementation Plans that map out their roles in reducing nutrient and sediment loads to the Chesapeake Bay. In addition, they are updating Local Land Preservation and Recreation Plans and Priority Preservation Area Plan Elements.

Given the importance of forests to the state's economy, community and environment, the vulnerability of forests and working lands to changing economic conditions and opportunities to incorporate forest conservation in land use planning, the Sustainable Forestry Council presents the following recommendations for implementing a no net loss of forests policy to the Secretary of the Department of Natural Resources.

The Sustainable Forestry Council's work has been called for through two important acts of the Maryland General Assembly:

- Sustainable Forestry Act of 2009 (SB 549), which articulates state forestry policy aims, recognizes the key role of sustainable forest management for meeting Chesapeake 2000 Agreement goals and establishes the Sustainable Forestry Council to advise the Department of Natural Resources on forestry matters
- Forest Conservation Act No Net Loss of Forest Policy (SB 666), which required DNR consult with forestry-related stakeholder groups to determine the meaning of no net loss of forest for state policies and to develop proposals for the creation of a no net loss of forest policy by December 2011

Meaning of a No Net Loss of Forest Policy

Maryland is currently 40% forested. The Sustainable Forestry Council recommends that the State of Maryland implement a set of initiatives that by 2020 ensures that 40% of all land is covered by forest. Forest should be defined using the State's land use/land cover classification. A target of 2020 provides enough time for the proposed recommendations to be fully implemented.

The Sustainable Forestry Council further recommends that a no net loss of forest policy must address not just the loss of forest, but also the issues affecting its environmental benefits and economic health. These issues include low rates of sustainable private forest management, declining forest industry infrastructure, pests and pathogens, and climate change just to name a few.

This paper focuses primarily on one major component of a no net loss of forest policy and the primary driver of forest loss, development. The Council will address the broader suite of issues in its future work.

The Proposal

The Sustainable Forestry Council recommends that the Maryland Department of Natural Resources work with partners and stakeholders to pursue an integrated set of actions and measures to achieve a no net loss of forest policy. These actions and measures will build upon existing efforts to create jobs, restore the Chesapeake Bay, promote smarter growth and protect the health of its residents. The recommend actions are organized in four policy elements:

Prioritize Forest Conservation

Maryland's GreenPrint recognizes that larger forested areas provide great environmental services for water quality and habitat. Program Open Space currently prioritizes these areas when making land conservation decisions. The Forest Conservation Act should also recognize this and provide these areas the highest protection from conversion to non-forest land cover.

Protect High Quality Forests

Strengthen land use planning by requiring local governments to adopt a new Forest Resource Element that identifies forest conservation areas in comprehensive plans. This new element will ensure that forests are included with other sensitive area protection elements and that natural resources are considered at a landscape level.

Offset All Sources of Forest Loss

While it is not practical to protect all forest from conversion, it is nevertheless important that all forest losses be offset. A strategic approach to forest loss should include directing reforestation to priority needs including expanding urban tree canopy and riparian buffers, and to targeting plantings on low-conflict opportunities such as excess lawn on large rural residential lots rather than on productive farmland.

Encourage Working Land and Family-owned Forest Stewardship

Because 76% of forests in Maryland are owned by families, forest industry, and other related nongovernmental organizations, a no net loss of forest policy must include financial and technical assistance measures that provide incentives for stewardship, forest retention and the maintenance of forest health.

The Details

Prioritizing Forest Conservation

The State should develop management strategies that address key functional and spatial characteristics of forest areas within existing State programmatic frameworks for forest resource management, smart growth, and Chesapeake Bay Program commitments. Attention should be directed at three spatially significant forest resource areas (Appendix A), each with distinct management objectives:

1. Forest Conservation Areas

Contiguous forest patches greater than 200 acres should be provided enhanced protection from conversion and parcelization because of their importance to water quality and watershed health. Forest Conservation Areas complement Maryland's GreenPrint priorities for water quality protection at the sub-watershed scale. The primary mechanism for enhanced protection of these forest areas should be an enhanced mitigation ratio under the Forest Conservation Act for forest conversion.

2. Urban Tree Canopy Areas

Urban Tree Canopy Areas contain trees, woods and forests within U.S. Census-designated "urbanized areas" or other widely recognized definitions. The goal in Urban Tree Canopy Areas is to achieve and maintain a state-wide minimum 40% Urban Tree Canopy cover. This recommendation supports the State's existing Chesapeake Bay Program commitments and innovative regional air quality plans. The state should alter Forest Conservation Act mitigation ratios or allowable exemptions to incentivize the maintenance and expansion urban tree canopies.

3. Woodland Conservation Areas

Woodland Conservation Areas are all forested areas outside of Urban Tree Canopy and Forest Conservation Areas. The management objective in this area is to conserve the resource to the extent possible and mitigate forest loss fully.

The Forest Conservation Act should be revised to differentiate forest clearing based on type of development. The Chesapeake Bay Critical Area Act differentiates development that needs to be located adjacent to the water (water dependent facilities) from development that can be sited outside of the Bay buffer. In a similar manner, the Forest Conservation Act should be amended to differentiate sprawl development from development that is more critical to locate strategically regardless of forest cover, such as critical public infrastructure and core "smart growth" town centers. Sprawl development as determined by the Maryland Department of Planning should be discouraged in priority forest areas and any associated forest loss should be mitigated fully. Alternatively, smart growth development could be given lower mitigation thresholds.

A preliminary state-wide map of these priority forest areas is presented in Appendix A. Local governments should be required to create their own assessments using the guidance in the next section.

Protection of High Quality Forests

In order to successfully achieve a no net loss of forest policy in Maryland, it will be critical that local land use decisions better protect existing forest cover overall, and especially Forest Conservation Areas, from conversion because of land development pressure. Improved land use planning can reduce the vulnerability of forests to land conversion and support the goal of "keeping forest in forest."

For a number of years the State has required local governments with planning and zoning authority to protect wetlands, steep slopes and other sensitive areas from development through the incorporation of a Sensitive Area Protection Element in local comprehensive plans. The Sustainable Forestry Council finds that the State can use the Sensitive Area Protection Element to incorporate forest conservation in land use planning through two actions:

- 1. Prepare a revised models and guidelines document for forest resources. The existing models and guidelines document prepared by State agencies in 1993 pre-dated the inclusion of agricultural and forest resources as defined sensitive areas by the General Assembly in 2009.
- 2. Require county governments to prepare a "Forest Resource Element." A Forest Resource Element is analysis of priority forest conservation areas and is analogous to a local GreenPrint plan. The State has completed GreenPrint assessments for every county, but

the scale of the analysis is not sufficient and not formally linked with the Sensitive Area Protection Element. Local governments with finer scale assessments can adopt these as their Forest Resource Element. The Forest Resource Element should include the following:

- Forest Resource Assessment This component assesses the distribution of forest patches by size and ecological function using the forest resource groupings proposed above.
- Forest Vulnerability Assessment This component assesses forest patch risk to development. Vulnerability is assessed based on a variety of factors such as ownership, protected area status and zoning.
- Priority Planting Assessment This component assesses the potential for tree planting sites in communities that takes into consideration existing land use/land cover, water resources, population density, etc.

The recommended Forest Resource Element would be similar to the 2007 requirement for a Water Resources Element in local comprehensive plans. Counties would be responsible for completing these elements for their entire geographic areas including municipalities.

Whereas the State's Water Resource Element is a more passive review of water infrastructure capacity issues and pollution impacts at the local level, the Forest Resource Element can become a priority for local implementation through the use of incentives for local adoption of the land use plan changes. A pollutant reduction credit should be developed to allow local governments to account for their actual forest area instead of coarser Chesapeake Bay Program estimates. Some county estimates have shown that the actual amount of forest cover on the ground can be up to 60% more than the Bay Model currently accounts.³

This credit can provide an incentive for local governments to adjust zoning to protect forests rather than spend funds for control of stormwater and pollution loads from land cover assumed to be impervious urban surfaces. As local governments face substantial near term Watershed Implementation Plan costs, this credit can be a strong incentive for implementation.⁴

Local governments that have funding in place for water infrastructure upgrades or that plan to raise funding can use this cost-savings to provide financial and technical assistance to the forest landowners who provide these credits. This financial incentive will encourage private landowners to increase protection of their forests and adopt formal stewardship plans.

Offset All Forest Losses

To achieve a no net loss of forest policy, most of the existing exemptions in the current Forest Conservation Act (FCA) will need to be revised. These existing exemptions include clearing of permitted public rights-of-way and mining. Over the next decade, over 400 miles of new utility rights-of-way clearings are proposed.⁵ With an average width of 200 feet, this clearing will remove nearly 9,700 acres of forest which should be mitigated.

³ Forest cover analysis performed by Baltimore County for the Sustainable Forestry Council.

⁴ The best solution is to revise the land use estimates used in the Chesapeake Bay Program Watershed Model, but in the short term real data must be accounted for.

⁵ Patty, Sandy. "New Transmission Lines Update." Presentation to the Sustainable Forestry Council. October 26, 2010. Maryland Department of Natural Resources.

In addition to FCA exemptions, county and municipal governments often have difficulty directing dollars collected from developers as a fee-in-lieu of mitigation to on-the-ground forest conservation and reforestation projects.

The Sustainable Forestry Council recommends that the Department of Natural Resources develop a requirement for the targeted mitigation of forest loss due to currently exempt sources and develop options to assist local governments in using fee-in-lieu funds by the end of 2012.

Encourage Working Land and Family-owned Forest Stewardship

Enhancing the Forest Conservation Act and local planning requirements will help slow conversion of forest loss, but not stop it all together. Therefore, incentives to encourage landowner stewardship in Forest Conservation, Urban Tree Canopy, and Woodland Conservation Areas will be essential. Maryland's no net loss of forest policy needs to recognize that despite the focus on the quantity of forest cover in the State, the quality of forest resources is critical to the long-term provision of the environmental and economic benefits they provide.

The continued provision of clean water and air, habitat, flood control and other ecosystem services is primarily in the hands of private citizens who own 76% of the forests in the state. Within this private forest land base, there are over 156,000 different landowners. The majority of these landowners own small residential parcels (an average of 17 acres) and do not always consider themselves forest landowners. Using appropriate and focused incentives for these landowners is critical.

The Sustainable Forestry Council recommends the following actions to foster forest retention and sustainable forest management on private forestland:

- Encourage forest conservation by facilitating landowner involvement in third-party forest certification systems.
- Provide technical and financial assistance for programs that promote the conversion of residential turf to trees.
- Ensure landowner access to emerging markets through appropriate incentives in areas like wood biomass energy (e.g. fuels for schools, district heating systems and combined heat and power energy systems).
- Increase funding and priority for working forest conservation easements in all appropriate state land conservation programs.
- Provide tax incentives for landowners to increase, retain and manage forest cover including the development of forest stewardship plans.

Additional measures are presented in Appendix B.

Defining and Tracking Forest Loss

Regardless of the policy mechanisms used to implement a no net loss of forest policy, the State must be able to track forest losses and gains. The Sustainable Forestry Council reviewed several candidate data sources and recommends that Maryland use the most reliable source of data for forest canopy. A comparison of the two leading sources of continuous forest data was made:

- Chesapeake Bay Program land cover data, based on 30-meter Landsat imagery, and
- Forest canopy mapping derived from the National Agricultural Imagery Project (NAIP), based on one-meter aerial photography.

As mentioned earlier, the comparison of these two datasets revealed that up to 60% of true forest and tree canopy are not visible at the 30-meter scale and that another 10% of canopy is inaccurately located. Because of these scale issues, the Sustainable Forestry Council recommends that Maryland adopt one-meter NAIP data as the baseline for determining forest cover area and tracking forest changes.

NAIP photography is available for Maryland from 2007, our recommended base year for State forest cover and is being acquired every three years, so it provides an accurate, reliable and cost-effective basis for setting a baseline year for a no net loss of forest policy and tracking forest cover changes going forward. NAIP imagery that is classified to provide land use/land cover estimates is currently available for most of the urban corridor and for other areas in Maryland.

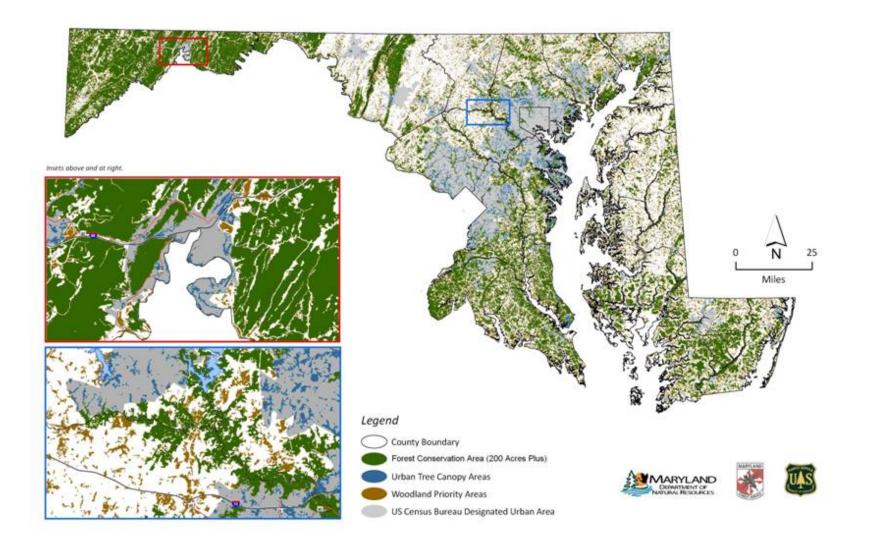
If we want to get to a finer scale of image resolution, technologies do exist that provide better resolution of land use and land cover (i.e., LiDAR), but these solutions will require considerable additional capital investment. To manage the costs of using LiDAR, DNR can prioritize classification of forest cover in the highest priority areas.

For a no net loss of forest policy to be effective, the State will need to sustain funding and support for these technologies (NAIP, and if desired, LiDAR).

Conclusion

The Sustainable Forestry Council believes that the integrated set of measures outlined above can make an important contribution to "bending the curve" for the rate of forest loss in Maryland and if fully implemented by 2020 can sustain the state's forest land cover at 40%. They will also assure that those who influence the quantity of the forest resource also recognize that without a healthy forest resource that is sustainably managed; all benefits and values are at risk. The Sustainable Forestry Council stands ready to work in earnest with the DNR and other stakeholders to further develop these proposals.

MARYLAND NO NET LOSS OF FOREST PRIORITY AREAS DECEMBER 2011



Appendix B

Additional Measures to Encourage Working Forest and Family-owned Forest Stewardship:

- Provide adequate resources to the Maryland Forestry Boards so they can provide stewardship assistance to private landowners, including the continued expansion of forest stewardship plans. The county Boards are nationally unique organizations that can offer peer-to-peer education and assistance to landowners, but currently lack capacity to fully achieve their mission.
- Encourage Forest Service and Wildlife staff to collaborate with partners to deliver technical assistance to landowners. Collaborative conservation will become increasingly important as state budgets tighten. These partners include Forestry for the Bay, Pinchot Institute for Conservation's LandServer and Bay Bank programs, and the University of Maryland Extension.
- Encourage DNR and other state grant programs to recognize the protection of high quality forests (i.e., avoided deforestation) as an eligible and priority water quality strategy in grant programs including the Bay Restoration Fund.
- Evaluate the fiscal impacts of lowering the "current use" property tax exemption for forest landowners from five to three acres. Property tax relief would be a strong incentive for large lot residential landowners to reforest and manage trees.
- Reserve State riparian buffer cost share funding for only forest cover. Grass buffers do provide water quality benefits and are inexpensive in the short-run, but forest buffers provides more environmental outcomes and cost efficiencies in the long-term.

Appendix C

Observations

During the comment review period a few suggestions were received that stood out as deserving further discussion:

- Investigate how the Council's recommendations for the "Protection of High Quality Forests" and "Prioritizing Forest Conservation" can be better integrated into the State's PlanMaryland and Priority Preservation Area strategies.
- Consider adding a "percent forest interior" and "source water protection area" filter to Forest Priority Areas.
- Consider re-establishing an exemption in the Forest Conservation Act for properties that contain no forest cover. This exemption has potential to incentivize the redevelopment of properties thereby supporting growth and avoiding forest conversion.

Appendix D

Sustainable Forestry Council Members

Gary Allen, Chair Center for Chesapeake Communities Annapolis, Md. 21401

Eric Sprague, Vice Chair Pinchot Institute for Conservation Annapolis, Md. 21403

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II. Recommendations from the Ecosystem Services Working Group

The following excerpt is from the Ecosystem Services Working Group's report finalized in October of 2011. The full report is available online at http://www.dnr.state.md.us/dnrnews/pdfs/ESWGFinalReportOct2011.pdf.

Forests

Forests cover 41% of Maryland, or 2.6 million acres. Forests provide infinite values and benefits, ranging from biological diversity, water quality and quantity, and wildlife habitats. Forest buffers, or strips of forests on either side of streams, rivers, ponds, lakes, and bays, are essential in maintaining clean water. Forests also play a crucial role in purifying the air by absorbing carbon dioxide and releasing oxygen. Seventy-six percent (76%) of the State's forest land is owned by an estimated 130,000 private individuals and enterprises; federal, state, and other public owners hold the remaining 24 percent.

For the eight-year period from 2002 – 2010, Maryland lost an estimated 7,000 acres of forest per year. The calculation of loss is the estimated net result from all forest acres cleared minus (a) acres planted pursuant to the Forest Conservation Act (FCA), which only applies to forests lost to development; and, (b) acres planted through voluntary and State-initiated programs such as Marylanders Plant Trees and Forest Brigade. Enacted in 1991, the FCA applies to any subdivision, grading permit, or sediment control permit on areas 40,000 square feet (approximately 1 acre) or greater and provides that certain amounts of forest must be retained and/or replanted. To retain forests in targeted areas, the preferred sequence of compliance is as follows: onsite retention, onsite planting, offsite retention, mitigation banking and, lastly, fee-in-lieu payment. Although the Maryland DNR Forest Service oversees administration of the FCA, the Act is implemented by local jurisdictions.

The FCA was not intended as a no net loss program; rather, it seeks to reduce the rate of forest loss resulting from development. While FCA has helped to slow the annual rate of forest loss by approximately 25%, there is great concern over losing any forest cover at all because of the critical ecosystem services forests provide.

Of the 104 local jurisdictions subject to the FCA – 21 counties (Allegany and Garrett are exempt) and 83 municipalities – 12 have some form of mitigation banking program, and a few banks are active. Banking programs differ significantly from one jurisdiction to the next. For example, Prince George's County is a "partner" in the banks, Somerset County allows banks only for commercial projects, and Anne Arundel County has separate banks for inside and outside the Critical Area. According to FCA reporting, 5,084 acres of forest bank credits have been transacted since 1997, the beginning of the bank option. Credit costs range from \$2,000/acre in Charles County, \$10,000/acre in Carroll County, and \$21,000/acre (only in the Critical Area) in Anne Arundel County. All counties except for Carroll, Cecil, Harford and Dorchester provide a fee-in-lieu option. The fees are low, ranging from \$0.40/sf to \$0.90/sf. (The minimum fee is set by State law at \$0.30/sf inside a priority funding area (PFA) and \$0.36/sf if outside a PFA).

During the first 15 years of the program, about \$17.72 M or \$1.2M/year was collected through fee-in-lieu programs, although banking was not always an option. In recent years, fee-in-lieu collections totaled \$2.65 M in 2008 and \$2.33 M in 2009. A comprehensive summary of how funds are expended, or whether replanted forests are replacing the full suite of ecosystem services of those they are replacing, is currently unavailable. In part, this is due to the widely differing mitigation rules among counties, some of which allow landscaping and street tree planting as mitigation options. For example, Baltimore County has used fee-in-lieu funds to establish a successful urban tree canopy program.

One successful example of forest banking in the State is Carroll County. By intentionally rejecting the fee-in-lieu option at the outset of the program, the County encouraged the development of private sector banks and reduced the staffing capacity needed to administer the program. There are now 15-20 banks in the County; since the mid-1990s, about 62% (397.6 acres) of off-site mitigation needs in Carroll have been provided through forest banks.

Analysis and Recommendations

Maryland is not recovering the full value of ecosystem services resulting from forests lost to development. It is also unknown how the fee-in-lieu option is being implemented by each county and whether the forest cover that is planted replaces the forests that are lost.

The ability of the market to help recover lost ecosystem services is hampered by existing rules. Current low fee-in-lieu pricing is well below the costs of developing mitigation banks and effectively blocks out the market for these banks. Also, banking options are not offered by all programs and rules for bank mitigation can be more restrictive than for fee-in-lieu mitigation. Using fee-in-lieu as a last resort and a high-cost option, and establishing consistent rules across the board, would give preference to banking and stimulate markets.

The group recommends the following actions:

- ✓ Amend the FCA to require "no net loss of forests" from development by:
 - Establishing a preference for forest mitigation banking. If an approved forest mitigation bank is within the local jurisdiction and has available credits, the applicant must purchase credit from this bank rather than paying the fee-in lieu;
 - Establishing consistent rules for banking;
 - Requiring local jurisdictions to account for fee-in-lieu funds collected and spent; and
 - Allowing inter-jurisdictional banking for local jurisdictions sharing a common watershed.

✓ Analyze existing programs to determine:

• Whether there is any gap between the ecosystem values that are being lost and those that are being replaced; and

• How fee-in-lieu funds are spent within each program.

Appendix A

Ecosystem Services Working Group Membership

Joe Gill (Chair), Department of Natural Resources Dan Baldwin, Department of Planning John Campagna, Restore Capital Denise Clearwater, Department of the Environment Christine Conn, Department of Natural Resources Marianne Dise, Office of the Attorney General Renee Fizer, Department of the Environment Dave Goshorn, Department of Natural Resources George Kelly, EBX USA Doug Lashley, GreenVest Marya Levelev, Department of the Environment Sean McGuire, Department of Natural Resources Dominick Murray, Department of Business & Economic Development Dan Nees, Environmental Finance Center, University of Maryland Kelly Neff, Department of the Environment Mary Owens, Critical Area Commission Susan Payne, Department of Agriculture John Rhoderick, Department of Agriculture Dan Rosen, Department of Planning