

#	Recommended Action	Lead	Timeframe	Costs	Benefits
<b>(A) Align institutions to value ecological resources.</b>					
<b>(1) Transportation</b>					
1	Address the social and economic impacts of policy and taxation on regional transportation, e.g., the removal of the Harbor Maintenance Tax.	N/A	N/A	N/A	N/A
<b>(2) Recreation, Tourism, and Fishery</b>					
2	Public investment and education needed for purchase and protection of open space to provide public access to watersheds.	Park districts; conservation agencies; departments of tourism; business land contributions and sales	3 years	\$200 million	Attracting families (labor) to region via livable communities.
3	Green technology and practices for industry, boat yards; deal with present aquatic nuisance species and non-point source.	Boat manufacturing	1 year	\$100,000	N/A
4	Return portion of fuel taxes paid by boaters to nature-based recreation opportunities.	State conservation agencies	1 year	N/A	N/A
5	Green marina programs to promote healthy aquatic habitats (e.g., MD/UN Green Marina Program).	State conservation agencies	2 years	\$100,000	N/A
<b>(3) Industrial Activities</b>					
6	Focus decision-making authority. Create a high-level, multi-agency, governmental steering body with the authority to provide leadership; develop strategy; establish goals; propose, coordinate, fund and assess progress on actions and projects relating to sustainable development. (old #87)	Coordinated entities including: Federal, State, Tribal and local agencies; business investment decision-makers; industry watchdog organizations, industrial trade organizations, research and education institutions, non-governmental and non-profit organizations, other community stakeholders	Immediate	N/A	Huge
7	Improve coordination, integration, and communication. Evaluate and draw on existing programs and governance models across the region to better disseminate information and harmonize state/provincial action (e.g., US/Canada Binational Toxics Strategy, SOLEC, SMOC, IJC). (old #94)	Coordinated entities	Continuing	N/A	N/A
<b>(4) Agriculture and Forestry</b>					
8	Animal feeding operations should adopt practices that produce no measurable runoff into streams and tributaries. (old #52)	Individual farm owners in conjunction with Federal and State agencies	N/A	N/A	Reduction in nutrients, contaminants, and sediments flowing into streams and tributaries.
9	Environmental reporting and assessment should be required at the watershed, not county, level. Existing county-based programs should coordinate on a watershed basis to better prioritize funding decisions. (old #54)	Federal and State agencies; regional coordination	N/A	N/A	Watershed protection; integrated/coordinating management
10	More resources should be made available through loan and grant programs that assist farmers in converting to sustainable agricultural practices. (old #53)	Federal and State agencies	N/A	N/A	Adoption and increased usage of sustainable agriculture BMPs.
11	State governments should review their tax laws to encourage the use of easements for environmental buffers and other practices that are considered sustainable. (old #51)	State agencies	N/A	N/A	Increase in conservation and buffer land.
12	Conduct a U.S. National Forest pilot project. (old #58)	Federal agency	Short-term	N/A	N/A
13	Invest in a Master Logger Program. (old #59)	Federal agency	Short-term	N/A	N/A

#	Recommended Action	Lead	Timeframe	Costs	Benefits
14	Implement a regional Bio-Energy Task Force that includes energy, environmental protection, and pollution control at state and federal levels, U.S. Forest Service, local energy companies, legislative bodies, research organizations, as well as diverse forest resources representations. (old #60)	Bio-Energy Task Force (including Federal, State, local and agencies; non-governmental and private organizations)	Short-term	N/A	N/A
15	Consider the assignment of carbon credits. (old #63)	Bio-Energy Task Force	Short-term	N/A	N/A
16	Consider the potential of energy farms. (old #64)	Bio-Energy Task Force	Short-term	N/A	N/A
17	Conduct a coordinated transportation policy analysis that is multi-sector with public involvement that brings regional harmony regarding road, water, and rail. (old #66)	Federal, State, and local agencies; regional coordination	Short-term	N/A	Coordination, efficiency.
18	For road transportation, address weight limits. (old #67)	Federal, State, and local agencies; regional coordination	Short-term	N/A	N/A
19	For rail transportation, encourage competition to improve services and lower costs, add more tracks, spurs, and cars. (old #68)	Federal, State, and local agencies; regional coordination	Short-term	N/A	Improved services, lower costs; more tracks, spurs, and cars.
20	For water transportation, seek appropriations to improve port facilities. (old #69)	Federal, State, and local agencies; regional coordination	Short-term	N/A	Improved port facilities.
21	Streamline all aspects of business operations. (old #73)	Federal, State, and local agencies; individual producers	Long-term	N/A	N/A
22	Reduce barriers to importation of wood raw materials. (old #75)	Federal agency	Long-term	N/A	N/A
23	Further develop technologies for using agriculturally derived fiber in combination with wood. (old #76)	Federal, State, and local agencies; individual producers; non-governmental and private organizations	Long-term	N/A	N/A
24	Actions that maintain and improve wood-based industries. (old #77)	Federal, State, and local agencies; family forest owners	Long-term	N/A	Prevent some of the reduction in owner size, prevent poor harvesting practices, and increase good forest management. These actions would primarily help the landowner with more than 100 acres of land.
25	More education, technical assistance, and financial incentives. Landowners need to know the forester or some other natural resource professional that will help them make the decisions needed to maintain a healthy productive forest that meets their needs and society's. They will work together to keep forests healthy so they can reach their individual goals. (old #78)	This service will not come through the traditional one-on-one technical assistance provided for landowners in the last Century. The new model will combine federal, state, and local governments with private industry, non-governmental organization, and private individuals working together on a watershed or another identifiable feature on the landscape.	Long-term	N/A	The family forest owner with less than 100 acres will benefit.
<b>(5) Land Use and Development</b>					
N/A	N/A	N/A	N/A	N/A	N/A

#	<i>Recommended Action</i>	<i>Lead</i>	<i>Timeframe</i>	<i>Costs</i>	<i>Benefits</i>
<b>(6) Water Infrastructure</b>					
	Tie existing U.S. EPA funding programs to local conservation planning requirements that impact all water sources (groundwater or surface water) by expanding legislation for Clean Water State Revolving Loan Fund program, Drinking Water State Revolving program and the Source Water Assessment Program.	Congress	N/A	N/A	N/A

#	Recommended Action	Lead	Timeframe	Costs	Benefits
<b>(B) Ensure/promote ecological conservation.</b>					
<b>(1) Transportation</b>					
26	Promote short sea shipping opportunities to reduce land-side congestion, improve air quality, and fuel efficiency.	N/A	N/A	N/A	N/A
27	Develop methods, technologies, and strategies to eliminate the introduction and spread of invasive species via maritime commerce and other transportation modes; must be recognized and pursued as a national priority.	N/A	N/A	N/A	N/A
28	Promote a strategy of environmentally responsible dredging and dredged material management in the Great Lakes through an enhanced role for the Great Lakes Dredging Team (GLDT). The GLDT should be empowered and encouraged to address more policy issues and have a greater advocacy role.	N/A	N/A	N/A	N/A
29	Support BMPs in Great Lakes and Saint Lawrence Seaway ports through EMPs aimed at preventing harmful impact to the Great Lakes ecosystem and responding effectively to events such as spills and toxic releases.	N/A	N/A	N/A	N/A
<b>(2) Recreation, Tourism, and Fishery</b>					
N/A	N/A	N/A	N/A	N/A	N/A
<b>(3) Industrial Activities</b>					
30	Track indicators and metrics. Create a national consensus, drawing upon the expertise of the National Academy of Sciences, to develop indicators and metrics for sustainability and a corresponding national database to track and evaluate sustainability trends and progress toward goals, and ensure the staff necessary to collect and evaluate the data. (old #89)	Coordinated entities	3-5 years	\$3-5 million	Score-keeping will incent major independent activities.
31	Recycling, life cycle assessment, efficiency of resource use. Promote manufacturing and management practices that use resources more efficiently and increase recycling, including life cycle assessment and product stewardship. (old #91)	Coordinated entities	Continuing	Variable?	N/A
32	Renewable/efficient energy; technological advances. Provide governmental financial incentives such as grants, low-interest loans, or tax incentives to develop renewable energy technologies, energy efficiency, and pollution prevention in the business sector. (old #92)	Coordinated entities	Continuing	Variable?	N/A
33	Chemical assessment and monitoring. Continue screening new industrial and agricultural chemicals to prevent the introduction of environmentally harmful substances and continue assessments of existing chemicals. (old #93)	Coordinated entities	Continuing	Variable?	N/A
<b>(4) Agriculture and Forestry</b>					
34	Consider the role of many wood-based industries who already are producing all their energy from mill waste. (old #62)	Bio-Energy Task Force	Short-term	N/A	N/A
35	More resources should be made available through loan and grant programs that assist farmers in converting to sustainable agricultural practices. (old #53)	Federal and State agencies	N/A	N/A	Adoption and increased usage of sustainable agriculture BMPs.
36	Animal feeding operations should adopt practices that produce no measurable runoff into streams and tributaries. (old #52)	Individual farm owners in conjunction with Federal and State agencies	N/A	N/A	Reduction in nutrients, contaminants, and sediments flowing into streams and tributaries.
37	USDA should provide outreach and training on integrated management techniques to address pesticides, drainage, watershed protection, erosion, etc. (old #55)	Federal agencies; State and local offices	N/A	N/A	Adoption and increased usage of sustainable agriculture BMPs.

#	Recommended Action	Lead	Timeframe	Costs	Benefits
38	Establish a certification task force to develop core standards in sustainable forestry. (old #56)	Federal agency	Short-term	N/A	N/A
39	Conduct a pilot on family forest lands that is cost effective and has support from legislation and incentives. (old #57)	Federal, State, and local agencies; household forest-owners	Short-term	N/A	N/A
40	Consider the assignment of carbon credits. (old #63)	Bio-Energy Task Force	Short-term	N/A	N/A
41	Consider the potential of energy farms. (old #64)	Bio-Energy Task Force	Short-term	N/A	N/A
42	Reduce barriers to importation of wood raw materials. (old #75)	Federal agency	Long-term	N/A	N/A
43	Further develop technologies for using agriculturally derived fiber in combination with wood. (old #76)	Federal, State, and local agencies; individual producers; non-governmental and private organizations	Long-term	N/A	N/A
44	Actions that maintain and improve wood-based industries. (old #77)	Federal, State, and local agencies; family forest owners	Long-term	N/A	Prevent some of the reduction in owner size, prevent poor harvesting practices, and increase good forest management. These actions would primarily help the landowner with more than 100 acres of land.
<b>(5) Land Use and Development</b>					
N/A	N/A	N/A	N/A	N/A	N/A
<b>(6) Water Infrastructure</b>					
	Promote conservation practices through education to reduce water demand pressure on existing infrastructure. Conservation practices may include sanitary reuse systems, storm water harvesting, multi-purpose piping systems and low-flow or dual flow flush toilets	public utilities, federal, state and local governments and code bodies	N/A	N/A	N/A
	Support the development of end user treatment and reuse systems for pharmaceuticals, endocrine disruptors, personal care products (PCPs) and other chemical products to relieve the treatment responsibilities for public utilities and environmental impact on the Great Lakes.				

#	Recommended Action	Lead	Timeframe	Costs	Benefits
<b>(C) Promote and integrate regional planning with public infrastructure maintenance, land use, and development,</b>					
<b>(1) Transportation</b>					
45	Create a comprehensive intermodal transportation plan for the Great Lakes transportation corridor.	N/A	N/A	N/A	N/A
46	Promote a port land use strategy for both new capacity and redevelopment of existing facilities.	N/A	N/A	N/A	N/A
<b>(2) Recreation, Tourism, and Fishery</b>					
47	Establish regional partnerships of Great Lakes promoters and preservers emphasizing local stakeholderhood (e.g., consider Adirondack Park as a model).	N/A	N/A	N/A	N/A
<b>(3) Industrial Activities</b>					
N/A	N/A	N/A	N/A	N/A	N/A
<b>(4) Agriculture and Forestry</b>					
48	Environmental reporting and assessment should be required at the watershed, not county, level. Existing county-based programs should coordinate on a watershed basis to better prioritize funding decisions. (old #54)	Federal and State agencies; regional coordination	N/A	N/A	Watershed protection; integrated/coordinating management
49	Expand availability and predictability of locally available wood supplies. (old #74)	Federal, State, and local agencies; individual producers	Long-term	N/A	N/A
50	More education, technical assistance, and financial incentives. Landowners need to know the forester or some other natural resource professional that will help them make the decisions needed to maintain a healthy productive forest that meets their needs and society's. They will work together to keep forests healthy so they can reach their individual goals. (old #78)	This service will not come through the traditional one-on-one technical assistance provided for landowners in the last Century. The new model will combine federal, state, and local governments with private industry, non-governmental organization, and private individuals working together on a watershed or another identifiable feature on the landscape.	Long-term	N/A	The family forest owner with less than 100 acres will benefit.
51	The federal government should modify existing agricultural price support programs to encourage the use of sustainable practices such as conservation tillage and crop rotation. (old #50)	Federal agencies	N/A	N/A	Adoption and increased usage of sustainable agriculture BMPs.
52	Animal feeding operations should adopt practices that produce no measurable runoff into streams and tributaries. (old #52)	Individual farm owners in conjunction with Federal and State agencies	N/A	N/A	Reduction in nutrients, contaminants, and sediments flowing into streams and tributaries.
53	More resources should be made available through loan and grant programs that assist farmers in converting to sustainable agricultural practices. (old #53)	Federal and State agencies	N/A	N/A	Adoption and increased usage of sustainable agriculture BMPs.
54	Establish a certification task force to develop core standards in sustainable forestry. (old #56)	Federal agency	Short-term	N/A	N/A
55	Conduct a pilot on family forest lands that is cost effective and has support from legislation and incentives. (old #57)	Federal, State, and local agencies; household forest-owners	Short-term	N/A	N/A

#	Recommended Action	Lead	Timeframe	Costs	Benefits
56	Invest in a Master Logger Program. (old #59)	Federal agency	Short-term	N/A	N/A
57	Conduct a coordinated transportation policy analysis that is multi-sector with public involvement that brings regional harmony regarding road, water, and rail. (old #66)	Federal, State, and local agencies; regional coordination	Short-term	N/A	Coordination, efficiency.
58	For water transportation, seek appropriations to improve port facilities. (old #69)	Federal, State, and local agencies; regional coordination	Short-term	N/A	Improved port facilities.
59	Streamline all aspects of business operations. (old #73)	Federal, State, and local agencies; individual producers	Long-term	N/A	N/A
<b>(5) Land Use and Development</b>					
N/A	N/A	N/A	N/A	N/A	N/A
<b>(6) Water Infrastructure</b>					
	Fund replacement and major maintenance of water infrastructure (water supply piping, water treatment systems, sewer piping and sewage treatment facilities) through full federal, financial support of the Clean Water State Revolving Loan Fund program under the Clean Water Act for municipal wastewater facilities	Congress	N/A	N/A	N/A
	Fund replacement and major maintenance of water infrastructure (water supply piping, water treatment systems, sewer piping and sewage treatment facilities) through full federal, financial support of the Drinking Water State Revolving program under the 1996 amendments to the Safe drinking Water Act for drinking water systems.	Congress			
	Promote the development and acceptance of green infrastructure through the standards and community development plans. Green infrastructure may include storm water harvesting, stormwater infiltration systems, multi-purpose piping systems (NFPA 13-D), controlled flow roof systems, green roof systems and onsite stormwater treatment and detention.	Local governments			

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<b>(D) Develop incentive programs that promote sustainability across all sectors.</b>					
<b>(1) Transportation</b>					
N/A	N/A	N/A	N/A	N/A	N/A
<b>(2) Recreation, Tourism, and Fishery</b>					
60	Return a greater portion of fuel taxes paid by boaters to boating projects and services.	States	N/A	N/A	N/A
61	Explore bundling of dredging of Great Lakes recreational harbors to attain economics of scale. [Note: We felt this recommendation's connection to restoration was unclear, but could be clarified if dredging projects included rebuilding fish spawning areas/habitat.]	Corps of Engineers	Ongoing	\$3 million per year	Less than 1.
62	Capital funding for boat ramps and terminals, brownfield retrofits, land purchases and easements.	N/A	N/A	N/A	N/A
63	Provide incentives for developers to build trails with natural buffers.	State government	1-3 years	Tax \$	Trail users \$7/day; agency expenditures; real estate.
<b>(3) Industrial Activities</b>					
64	Increase market efficiency. Analyze and recommend changes in tax policy to create incentives for consumers and businesses adopting sustainable development practices and disincentives for environmentally destructive activities. (old #88)	Coordinated entities	2-5 years	N/A	Huge
<b>(4) Agriculture and Forestry</b>					
65	USDA should provide outreach and training on integrated management techniques to address pesticides, drainage, watershed protection, erosion, etc. (old #55)	Federal agencies; State and local offices	N/A	N/A	Adoption and increased usage of sustainable agriculture BMPs.
66	More education, technical assistance, and financial incentives. Landowners need to know the forester or some other natural resource professional that will help them make the decisions needed to maintain a healthy productive forest that meets their needs and society's. They will work together to keep forests healthy so they can reach their individual goals. (old #78)	This service will not come through the traditional one-on-one technical assistance provided for landowners in the last Century. The new model will combine federal, state, and local governments with private industry, non-governmental organization, and private individuals working together on a watershed or another identifiable feature on the landscape.	Long-term	N/A	The family forest owner with less than 100 acres will benefit.
67	The federal government should modify existing agricultural price support programs to encourage the use of sustainable practices such as conservation tillage and crop rotation. (old #50)	Federal agencies	N/A	N/A	Adoption and increased usage of sustainable agriculture BMPs.
68	State governments should review their tax laws to encourage the use of easements for environmental buffers and other practices that are considered sustainable. (old #51)	State agencies	N/A	N/A	Increase in conservation and buffer land.
69	Animal feeding operations should adopt practices that produce no measurable runoff into streams and tributaries. (old #52)	Individual farm owners in conjunction with Federal and State agencies	N/A	N/A	Reduction in nutrients, contaminants, and sediments flowing into streams and tributaries.

#	Recommended Action	Lead	Timeframe	Costs	Benefits
70	More resources should be made available through loan and grant programs that assist farmers in converting to sustainable agricultural practices. (old #53)	Federal and State agencies	N/A	N/A	Adoption and increased usage of sustainable agriculture BMPs.
71	Establish a certification task force to develop core standards in sustainable forestry. (old #56)	Federal agency	Short-term	N/A	N/A
72	Identify barriers to biomass energy production, appropriate regulations, and incentives for improved energy cleanliness and efficiency. (old #61)	Bio-Energy Task Force	Short-term	N/A	N/A
73	Consider the role of many wood-based industries who already are producing all their energy from mill waste. (old #62)	Bio-Energy Task Force	Short-term	N/A	N/A
74	Consider the assignment of carbon credits. (old #63)	Bio-Energy Task Force	Short-term	N/A	N/A
75	Consider the potential of energy farms. (old #64)	Bio-Energy Task Force	Short-term	N/A	N/A
76	Seek opportunities to maintain competitiveness, although operational changes will likely be needed, particularly on the part of commodity producers. (old #70)	Federal, State, and local agencies	Long-term	N/A	N/A
77	Focus to a greater extent on supply chain advantages stemming from proximity to major markets. (old #71)	Federal, State, and local agencies; regional coordination	Long-term	N/A	N/A
78	Shift a greater portion of production from commodity to specialty products. (old #72)	Federal, State, and local agencies; individual producers	Long-term	N/A	N/A
79	Expand availability and predictability of locally available wood supplies. (old #74)	Federal, State, and local agencies; individual producers	Long-term	N/A	N/A
80	Further develop technologies for using agriculturally derived fiber in combination with wood. (old #76)	Federal, State, and local agencies; individual producers; non-governmental and private organizations	Long-term	N/A	N/A
81	Cities and towns need education, technical assistance, and financial assistance to manage their forests, but most of them do not have the financial resources to hire the technical assistance they need to keep their forests healthy. (old #79)	Federal, State, and local agencies; city and town governments and citizens	Long-term	N/A	N/A
82	The Midwest Community Tree Guide: Benefits, Costs, and Strategic Planting is a tool that can help cities and towns demonstrate the benefits of planting and managing their forests. Armed with this information cities and towns can guide their planning and motivate their volunteers and other partners. (old #80)	Federal, State, and local agencies; city and town governments and citizens	Long-term	N/A	N/A
<b>(5) Land Use and Development</b>					
N/A	N/A	N/A	N/A	N/A	N/A
<b>(6) Water Infrastructure</b>					
	Promote conservation practices through education and monetary incentives to reduce water demand pressure on existing infrastructure. Conservation practices may include sanitary reuse systems, storm water harvesting, multi-purpose piping systems and low-flow or dual flow flush toilets	public utilities, federal, state and local governments and code bodies	N/A	N/A	N/A

#	Recommended Action	Lead	Timeframe	Costs	Benefits
<b>(E) Brand the Great Lakes as a competitive place to live, work, do business, and recreate.</b>					
<b>(1) Transportation</b>					
N/A	N/A	N/A	N/A	N/A	N/A
<b>(2) Recreation, Tourism, and Fishery</b>					
83	Joint State and Tribal marketing of nature-based tourism and recreational fishing.	State Departments of Tourism; Tribes	1-3 years	\$3 million	\$100 million?
84	Develop a Great Lakes recreational pass.	State Departments of Tourism	N/A	N/A	N/A
85	Expand Great Lakes circle concept of scenic by-ways.	State Departments of Tourism and Highways	N/A	N/A	N/A
86	Continue purchase and protection of open space and public access areas for (1) nature-based activities, and (2) livable communities.		N/A	N/A	N/A
87	Education and marketing emphasizing recreational boating opportunities and related economic impacts.	State Departments of Tourism	N/A	N/A	N/A
<b>(3) Industrial Activities</b>					
N/A	N/A	N/A	N/A	N/A	N/A
<b>(4) Agriculture and Forestry</b>					
88	Focus to a greater extent on supply chain advantages stemming from proximity to major markets. (old #71)	Federal, State, and local agencies; regional coordination	Long-term	N/A	N/A
89	Actions that maintain and improve wood-based industries. (old #77)	Federal, State, and local agencies; family forest owners	Long-term	N/A	Prevent some of the reduction in owner size, prevent poor harvesting practices, and increase good forest management. These actions would primarily help the landowner with more than 100 acres of land.
90	More education, technical assistance, and financial incentives. Landowners need to know the forester or some other natural resource professional that will help them make the decisions needed to maintain a healthy productive forest that meets their needs and society's. They will work together to keep forests healthy so they can reach their individual goals. (old #78)	This service will not come through the traditional one-on-one technical assistance provided for landowners in the last Century. The new model will combine federal, state, and local governments with private industry, non-governmental organization, and private individuals working together on a watershed or another identifiable feature on the landscape.	Long-term	N/A	The family forest owner with less than 100 acres will benefit.
<b>(5) Land Use and Development</b>					
N/A	N/A	N/A	N/A	N/A	N/A
<b>(6) Water Infrastructure</b>					
N/A	N/A	N/A	N/A	N/A	N/A