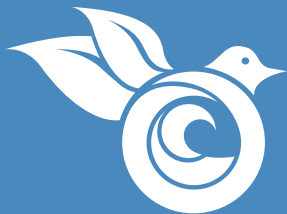


Recommendations for actions by the
Obama Administration and the Congress
to advance the scientific foundation for
conserving biological diversity



Society for Conservation Biology

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About the Society

Dedicated to advancing the science and practice of conserving the Earth's biological diversity, the Society for Conservation Biology is a global community of conservation professionals with more than 12,000 members world-wide and representatives from over 140 countries. The Society's membership comprises a wide range of people interested in the conservation and study of biological diversity: resource managers, educators, government and private conservation workers, and students.

Publications and Programs

SCB publishes the flagship peer-reviewed journal of the field, *Conservation Biology*, the award-winning magazine, *Conservation* and the new journal, *Conservation Letters*. Its Annual Meeting, ranging in location from Chattanooga to China, is recognized as the most important global meeting for conservation professionals and students. The Society provides many benefits to its community, including local, regional, and global networks, free online access to publications for members in developing countries, and a very popular online job board. SCB also administers the prestigious David H. Smith Conservation Research Fellowship Program, sponsored by the Cedar Tree Foundation.

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December 2008, Society for Conservation Biology

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Recommendations for actions by the Obama Administration and the Congress to advance the scientific foundation for conserving biological diversity

December 3, 2008
Society for Conservation Biology

The Society for Conservation Biology is a global community of conservation professionals concerned with the conservation of biological diversity. We strongly support the use of science to inform conservation policy. We are encouraged by indications that the new Congress and Obama Administration will establish a high standard of scientific literacy for nominees and staff and will protect the integrity and transparency of science in management and decision-making processes. Key actions that will increase the Administration's ability to realize this vision are:

- 1 enhancing the use of science in developing policy and management practices;
- 2 strengthening fundamental environmental policies and practices by fully implementing and enforcing existing laws such as the National Environmental Policy Act, the National Forest Management Act, the Clean Air Act, the Clean Water Act, and the Endangered Species Act;
- 3 enhancing the federal role in conserving biological diversity and maintaining or increasing the ability of ecosystems to mitigate and adapt to climate change;
- 4 promoting international cooperation to address invasive and other potentially injurious species and achieve other conservation goals; and
- 5 restoring scientific integrity in the decision-making process.



ENHANCE THE USE OF SCIENCE IN SELECTING NOMINEES, AND IN DEVELOPING POLICIES AND PRACTICES

The President and Congressional leadership have an opportunity to set a new and higher standard for senior staff and nominees to departments, agencies, and the judicial system. This standard might become an Executive Branch precedent that could endure in the form of an Executive Order or joint guidance issued by the White House, Attorney General, Office of Government Ethics, and Office of Personnel Management. A Senate counterpart could become part of the committees' or Senate rules implementing the "advice and consent" powers set out in the Constitution. Accordingly, we recommend the following actions:

Recommended actions

- Require that candidates for each Executive Branch position have advanced education or professional experience that is directly relevant to the majority of their anticipated work.
- Require that all candidates for judicial positions provide explicit information on their education and experience on issues of the role of science in law, and related concepts like the precautionary principle.
- Provide all nominees, new Members of Congress, Members newly assigned to committees, and new staff with an orientation and continuing education coordinated by the Congressional Research Service in the scientific disciplines relevant to their positions.
- Review required education and experience for senior staff in the executive service and civil service who are engaged in biological sciences and conservation policy and management.
- Encourage participation of federal staff in the activities and governance of professional scientific societies, including publication in refereed journals.

STRENGTHEN FUNDAMENTAL ENVIRONMENTAL POLICIES AND PRACTICES

Implementation of our nation's fundamental environmental laws, such as the National Environmental Policy Act (NEPA), National Forest Management Act (NFMA), and Endangered Species Act (ESA), would benefit from new rule making and direction to ensure scientific integrity in policy decisions affecting natural resources. At the outset, the new Administration should order an across the board review of recent natural resource decisions by the outgoing Administration to correct and curtail the effects of those not based on the best available science.

National Environmental Policy Act (NEPA)

Implementation of the Act would benefit from the following actions by the Council on Environmental Quality (CEQ).

- Issue guidance to all federal agencies on rigorous, scientifically credible analysis of the effects of climate change and the effects of alternative proposed programs, projects, and other actions in mitigating net greenhouse gas emissions and adapting to climate change within the context of NEPA compliance.
- Reestablish NEPA at the programmatic level to facilitate early assessment of impacts and alternatives that can improve the ability of science to inform decision-making.
- Initiate a government-wide review of conflict of interest and ethics policies that pertain to federal agencies' selection of contractors for preparation of environmental impact statements and exclude any contractors that have conflicts of interest, financial or otherwise.
- Review the categorical exclusions of resource management, transportation, and other agencies to ensure that the only proposed federal actions excluded from documented analysis are those that would not, individually or cumulatively, have significant environmental effects.
- Consider expanding the scope of NEPA guidance and expanding cooperation with states to capture earlier in the process actions that eventually will entail Federal actions or support, such as adding sources for interstate electric supplies in order to identify and better control significant sources of greenhouse gas emissions.

Additionally, we recommend that the Administration reexamine NOAA's NEPA procedures to ensure that they involve the fishery management councils created under the Magnuson-Stevens Act while leaving government functions in the control of the agency. We recommend that NOAA be directed to evaluate biological and economic impacts related to changes in biological diversity, alteration of species' habitats, introduction of non-native species, and ecosystem resilience when developing risk assessments, such as when evaluating aquaculture projects. We also recommend that the administration reevaluate the exclusion of EPA decisions and rulemaking from NEPA review. This exclusion is often incompatible with the goals of NEPA and reduces the transparency of government decision making.

National Forest Management Act (NFMA)

In 2008, the U.S. Forest Service published new regulations for managing national forests and grasslands under NFMA that virtually eliminated the requirement to maintain viable populations of all vertebrate species on each planning unit of the National Forest System. The existing regulations are not scientifically sound and therefore we recommend the following actions:

- Issue a moratorium on the use of the 2008 National Forest Management Act (NFMA) regulations (36 CFR Part 219) and clarify that national forests and grasslands may proceed with forest and grassland plan revisions and amendments pursuant to the 1982 NFMA regulations (as amended in 1983).
- Publish a proposed rule to rescind the 2008 NFMA regulations and the categorical exclusion for forest and grassland plans, and reinstate the 1982 NFMA regulations (as amended in 1983) pending a full review by the new administration.
- Support new and additional sources of funding for the inventory and conservation of biological diversity (on all public lands).

Endangered Species Act (ESA)

Over the years the implementation of the ESA has been limited in many ways. For example, reports by the Government Accountability Office (GAO), Inspectors General, and numerous court decisions have documented at least 18 potential instances of political interference with decisions on listing of species and designation of critical habitat in recent years. There is also reason to believe that political interference may have unduly affected a larger set of decisions¹. We recommend the following actions to restore scientific integrity and the full application of the law in ESA implementation.

- Revisit decisions for which there is significant and credible evidence of irregular procedures or effects including those questioned by the GAO or Inspectors General. Subject resource-allocation decisions that might influence species affected by these decisions to a reinitiation of consultation or other formal review to ensure that takings and habitat alterations are scientifically and legally defensible.
- Propose amendments to an ESA reauthorization bill that would provide more-specific whistleblower protection for those enforcing and implementing all aspects of the ESA.

Listing

- Request additional appropriations and program funds to ensure that warranted listings of candidate species are not precluded.
- Formally withdraw the Solicitor's Opinion of 16 March 2007, the distinct population policy affecting cross border populations (61 FR 4722), and propose an approach to both the "significant portion of range" and "distinct vertebrate population segments" that provides a more cautious approach to managing species at risk.
- Estimate the economic benefits as well as the costs of critical habitat determinations.

¹Witnesses before the House Natural Resources Committee including representatives of the Union of Concerned Scientists, and other organizations, have posted evidence that may support further review. For examples, see http://www.ucsusa.org/scientific_integrity/abuses_of_science/oversight-of-endangered.html and <http://www.biologicaldiversity.org/publications/papers/PoliticizingExtinction.pdf>

Recovery

- Strengthen existing guidance that recovery plans must be based on the best available scientific information and add guidance that a majority of members on recovery teams must be experts on the species and ecosystems in question.
- Post Section (4) (f) (3) recovery reports to Congress on the Web and in the Federal Register.
- Limit incidental takings for species awaiting recovery plans and publish for comment any proposed findings that a plan will not promote the conservation of a species.
- Revise recovery plans and related critical habitat determinations where political interference with science and scientific peer review was not adequately addressed (e.g., decisions concerning the northern spotted owl, *Strix occidentalis caurina*).
- Require recovery plans to take affirmative measures to consider climate change and create mechanisms to increase the probability of species recovery under projected future climatic conditions.

Consultation

- Restore the global reach of the consultation process as directed in the 8th Circuit Court Opinion in *Defenders v. Lujan* (1990) with assistance from agencies with significant international programs related to endangered species or their ecosystems.
- Require that the senior authors sign initial assessments and opinions. Require political appointees to sign all changes they make and cite the science justifying the change in a draft or final biological opinion.
- Reject proposed rule changes that would allow action agencies to avoid consultation with the Services.
- Clarify in consultation policies that federal actions that substantially reduce probability of recovery by their modification of critical habitat are deemed “adverse modifications.”
- Clarify that biological assessments and opinions will address each agency’s (Section 7(a)(1)) affirmative recovery responsibilities as well as responsibilities to avoid takings to the extent possible, jeopardy, and adverse modifications.
- Include input from Federal agencies involved in relevant climate change research and policy development in interagency consultations to evaluate how climate change might be addressed in species assessments, recovery planning, consultations and management.

Permits and Habitat Conservation Plans

- Include in incidental take permits (including habitat conservation plans) and statements limits on habitat modification and likely takings to ensure that they result in no net loss of occupied habitat or important corridors for movement of affected species.
- Provide a scientifically transparent evaluation of the efficacy of habitat conservation plans (HCPs) before considering proposals to streamline the HCP application process.
- Ensure that Habitat Conservation Plans are designed and implemented to increase the probability of species recovery under changing climatic conditions.

Enforcement

- Work with the departments of Justice, Agriculture, Commerce, the Coast Guard, and other agencies to create enforcement teams involving takings or other violations of the ESA and related

laws such as the Lacey Act, and reward success using the reward provisions of Section 11(d).

- Promulgate Animal and Plant Health Inspection Service regulations to implement the Farm Bill provisions that added plants to the Lacey Act to prevent interstate trade in illegally harvested timber and other plant products. Promulgate complementary Interior regulations concerning import reports, ports, and permits under Section 9(d-f) of the ESA and use existing authorities to address other issues such as new threats that may be posed by importing live animals.
- Work with Congress if necessary to authorize stronger controls on imports of non-native species and potential vectors of disease.

ENHANCE THE FEDERAL ROLE IN CONSERVING BIOLOGICAL DIVERSITY AND ADDRESSING CLIMATE CHANGE ADAPTATION AND MITIGATION

Global climate change, which is triggering environmental, social, and economic disruptions, is perhaps the greatest challenge the President and the nation will face in conserving natural resources. Thus, we recommend that the President elevate this issue as a top priority not only for the environment but with regard to its implications for national and economic security and human health. This elevation could be accomplished in part through a national summit, attended by the President, his advisors, agency heads, congressional leaders, leaders of the associations of governors and mayors, scientific and legal experts, and possibly heads of state from Mexico, Canada, and other countries to establish a process for responding to climate change in cooperation with state and local governments. We further recommend the following actions:

Recommended actions

- Form an interagency team charged with developing options for use of and modest amendments to existing laws, including but not limited to NEPA, Clean Air Act, ESA, and the Internal Revenue Code, to minimize net greenhouse gas emissions and maximize the ability of ecosystems to sequester and convert greenhouse gases.
- Aggressively use existing authorities to address both the drivers and consequences of climate change, such as review under NEPA and full consideration under the Endangered Species Act
- Issue an Executive Order on climate change with a timetable for domestic and international action that comprehensively incorporates adaptation, sequestration, and mitigation strategies into the greatest possible proportion of plans for federal projects and programs.
- Instruct each agency to assess its authorities and to recommend budgetary and operational changes to enhance its role in addressing climate change. Further instruct each agency to work with Congress to incorporate conservation of biological diversity and mitigation of and adaptation to climate change into all major stimulus, stabilization, and other economic support measures. For example, require beneficiaries of emergency financial support to complete environmental audits and publicly disclose those findings and actions taken as a result on an annual basis.
- Require that CEQ and EPA develop and implement a programmatic assessment process for proposed energy, transportation, and agriculture developments and other climate-related actions in consultation with the Department of Energy, National Aeronautics and Space Administration, Department of Agriculture, Department of Transportation, National Oceanic and Atmospheric Administration, scientific societies, scientific research centers, and the National Academy of Sciences.
- Develop, in consultation with like-minded governments, a new strategic approach to international negotiations that is not limited to the scope and instruments advanced by the previous administration.

Cohesive management policies for public lands and waters are increasingly important as climate changes, urban and suburban areas expand, and pressures for energy development on public lands increase. We recommend establishment of a strong, unified standard for resource management on lands managed by the Forest Service and Bureau of Land Management and a similar standard for other federal primary purpose lands as exemplified by the actions below. We also recommend working with state governments to address different impacts, such as sea-level rise in coastal states.

Forest Service

- Implement ecological sustainability [as defined by the USFS Committee of Scientists Report (1999)²] and principles for adaptation to climate change on all national forests.
- Suspend road building in inventoried roadless areas while a consistent policy on roadless areas is developed, and in the meantime restore the 2001 Roadless Conservation Rule.
- Suspend logging of mature and old-growth forests in the Pacific Northwest while new conservation strategies that build on the Northwest Forest Plan are examined.
- Conduct assessments of carbon sequestration potential, develop management plans for long-term sequestration, and manage ecosystems to build resistance and resilience to climate change.
- Analyze costs and benefits of alternative types of biofuels, agriculture, and silviculture, including their contributions to controlling greenhouse gases.
- Mitigate fragmentation of wildlife habitat by energy corridors before projects are authorized.

Bureau of Land Management

- Conduct assessments of carbon sequestration potential, develop management plans for long-term sequestration, and manage ecosystems to build resistance and resilience to climate change.
- Analyze costs and benefits of biofuel utilization, including net effects on the levels of atmospheric greenhouse gases.
- To the extent possible, promulgate regulations defining BLM's sustained yield mandates to ensure conservation of biological diversity and work with Congress to codify into law strong wildlife-protection standards such as those found in NFMA's implementing regulations promulgated in 1982.
- Require assessment of potential future impacts from energy development on natural resources before issuing leases. Refrain from issuing new oil and gas leases on public lands until landscape-level management plans are completed and cumulative impacts and contributions to climate change are mitigated.
- Correct or suspend resource allocations based on decisions or recovery plans that are likely to be reversed. For example, issue a Supplemental Environmental Impact Statement for the BLM Western Oregon Plan Revision requiring the agency to abide by the Northwest Forest Plan.
- Provide full funding for the National Landscape Conservation System and consider new designations of national monuments and similar areas to expand the system in the face of climate change. Conduct an inventory of roadless areas – similar to that on national forests – and include these lands in an expanded system.

National Wildlife Refuge System

- Participate in developing a national strategy for adaptation to and mitigation of climate change

²www.fs.fed.us/news/science

and issue other guidance to maintain the viability of the nation's native species.

- Review and revise existing initiatives on non-native invasive species with the aim of preventing the establishment of new non-native invasives and reducing the impacts of existing populations of non-native invasives in the refuge system and beyond.

Landscape-Level Conservation Across Jurisdictions

The Secretaries of Interior and Agriculture should plan and begin to assemble a connected system of lands and waters (public and appropriate private areas) to be managed for conservation of biological diversity while working to reduce barriers to dispersal of native species. In this process, create incentives for private land stewardship to provide corridors for native species. In developing this process they should consider the Natura 2000 European Network of Biodiversity Areas. For western lands we recommend that the lead agencies consider the recommendations of the Western Landscapes Conservation Series of Northern Arizona University (<http://westernconservation.org/>).

PROMOTE INTERNATIONAL COOPERATION TO ACHIEVE CONSERVATION GOALS

Convention on Biological Diversity (CBD)

Only the United States, Somalia, Andorra, the Vatican, and Iraq have failed to ratify the CBD and thus have no vote in its deliberations. We recommend that the United States ratify the CBD, possibly as part of a package of widely accepted treaties (*e.g.*, the Law of the Sea and the Convention on Migratory Species).

Convention on International Trade in Endangered Species (CITES)

- Better elucidate and enforce the requirements of Article IV to ensure that Appendix II species are legally taken and sustained throughout their ranges.
- Better elucidate and enforce the requirements for Appendix III species listed by individual governments that need enforcement assistance in conserving species that are likely to be subject to harvesting and trade.
- Review and revise the measures required by the Secretary under Subsections 9(d-f) of the Endangered Species Act concerning imports of unlisted wildlife and plants.

Globally Endangered Species (Endangered Species Act)

We recommend that the Secretary of the Interior restore the original pre-1986 coverage requiring interagency consultation on agency actions affecting species outside the United States that are on the U.S. list of threatened and endangered species.

International Trade and Non-Native Invasive Species

- Explore cooperation with other nations and ensure that future agreements expressly require that trade and aid comply with national and international conservation standards through the application of the best available science and technologies.
- Consider more active use of the Fisherman’s Protective Act and the “Pelly” and Driftnet Act (Studds) Amendments to it (22 USC 1978), which created a range of trade sanctions against nations whose citizens are diminishing the effectiveness of an international conservation agreement.
- Convene a task force on Biological Security to make detailed recommendations to the President and the Congress on how to improve our understanding of and defenses against potential undesirable effects of non-native invasive and genetically engineered species, and control the import and export of both illegally and unsustainably harvested animals and plants.

International Financial Institutions Act (IFIA)

- Comply fully with Title 13 of the IFIA, which requires that U.S. agencies that are considering proposals of multilateral development banks establish a system for sharing information with other

countries and the public in a timely manner so that others need not rely primarily on the banks' own environmental assessments. Adjust energy development by bilateral and multilateral aid and export agencies to rapidly halt subsidies for enterprises that emit greenhouse gases at significant rates, substantially reduce net emissions of greenhouse gases, and improve forest conservation and reforestation.

- Funding Compliance with Conservation Laws and Treaties – Use Sections 1504 and 1505 of the International Financial Institutions Act to require that loans and country assistance strategies set out in detail the conditions necessary to ensure compliance with conservation laws and treaties that are applicable to the undertaking and borrower.

RESTORING SCIENTIFIC INTEGRITY

Political interference in science has penetrated deeply into the culture and practices of our federal resource agencies. By selecting a science advisor to ensure separation of science from politics, the new president can make a clear statement early in his tenure that our country intends to base federal decisions on the best science available and to develop additional information when the law requires it and whenever it is practicable to do so without delaying precautionary management steps, even when not required by law.

Depoliticizing federal science in the resource agencies will require these basic principles:

Increasing Transparency

- Disclose outside meetings, ensure the fullest possible public participation consistent with the law, and post records and documents online.

Open Communications Policies

- Clearly define the role of public affairs officers as facilitators of free and open communication among scientists, the media, policy makers, and the public.

Disclose Records

- Configure agency Web sites to be searchable, accessible, and user friendly. Whenever possible adopt consistent metadata standards, use open standards, preserve electronic records, increase digitization of information, and respond fully and promptly to Freedom of Information Act requests.

Reveal Conflicts of Interest

- Require all government employees and members of advisory or stakeholder committees to reveal all conflicts of interest and recuse themselves from influencing decision-making on the issues on which they have a financial conflict of interest.

Preventing Abuses of Science

Reverse Policies that Weaken Scientific Input

- Suspend, review, and replace regulatory changes and formal and informal guidance limiting the role of scientific advice in conservation of biological diversity.

Review Tainted Decisions

- Direct resource agencies to initiate a stakeholder-inclusive process to compile a list of decisions for which there is evidence of political interference. Where misuse or inappropriate manipulation of science has been identified, systematically reexamine and modify the decisions.

Limit Inappropriate Interagency Review

- As a measure of protection against invasive interagency review, direct resource agencies to provide open and complete dockets for scientifically based decisions. This should include the release of scientific documents before they enter the interagency review process so that any changes to the scientific underpinnings can be identified.

Create an Institutional Firewall

- Ensure that the science that enters the rulemaking process is synthesized and peer reviewed by

qualified, unbiased experts in the relevant field. To the extent possible, create an institutional firewall between those compiling scientific information and those crafting policy to ensure that policy makers do not have the opportunity to edit, influence, manipulate or otherwise interfere with the scientific content. (This precaution is not intended to limit collaboration aimed at developing better legal and scientific standards and further research.)

Creating a Culture that is Conducive to Science – By protecting scientists, encouraging their professional development, and increasing ethics and accountability, the agencies will maximize their ability to recruit and retain excellent scientists.

Promote the Freedom to Warn

- Direct resource agencies to encourage scientists to speak out about abuse of science and vow to protect scientists who do so from retaliation.

Enhance Ethics Policies

- Develop and enforce comprehensive ethics policies that explicitly define and forbid political interference in science.

Encourage Participation in the Scientific Community

- Direct agencies to encourage their staff scientists to publish in external peer-reviewed journals, promote opportunities for professional development through scientific conferences and training, and stimulate participation in scientific societies, including service as officers.

Fully Inform Scientists About their Rights

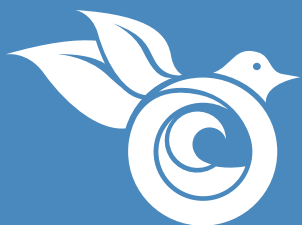
- Provide regular training and post information to ensure that employees and contractors of government agencies are fully aware of their rights regarding publication of their research, communication with the media, and freedom to anonymously report waste, fraud and abuse.

Strengthening the Law that Supports Science Across the Agencies

- Work with Congress to allow Federal whistleblowers who seek redress for retaliation to sue in U.S. District Court if they have not received a response to their claim through an administrative process within 180 days of filing that claim, or if they wish to appeal a Merit Systems Protection Board decision.
- Repeal Executive Order 13422, which emphasized economic over environmental concerns, and consider a new executive order clarifying that the regulatory oversight and coordination role of the Office of Management and Budget does not include the right to politicize scientific results or delay regulations.
- Direct the heads of the resource agencies to reverse any regulations or guidance that may minimize or improperly interfere with the role of science in federal decision-making. An example is the 11 August 2008 proposed regulatory changes to the Section 7 consultation process for the Endangered Species Act.
- Direct the Attorney General to rank the enforcement of environmental laws and laws ensuring factual accuracy in federal decisions among the highest priorities in civil, criminal, and appellate considerations and in the work of the Public Integrity Section of Justice in its focus on the behavior of elected and senior officials.
- Resume the practice developed under Executive Order 12044, which directed all agencies to ensure that opportunity exists for early public participation in the development of agency

regulations.³ This included paying not-for-profit organizations and individuals for providing substantial scientific evidence in administrative proceedings that would be unlikely to be available but for that compensation. Expand this practice with regard to science used in successful litigation to uphold or improve environmental and scientific standards.

³The Federal Energy Regulatory Commission adopted such procedures to ensure balanced representation and a full evidentiary record. Related recommendations for notice, selection of witnesses, and so forth were presented in reports commissioned by DOE and developed by the Energy Policy Task Force of the Consumer Federation of America and the law firm Boasberg, Hewes, Finklestein and Klores, including “Funding public participation in Department of Energy proceedings: a report prepared by the Energy Policy Task Force.” Berman, E., Boasberg, T., 1 September 1978.



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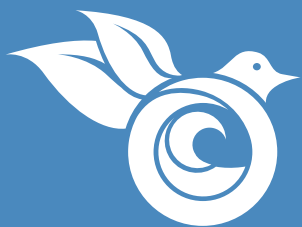
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