

# A PLAN TO RESTORE AMERICA'S WILDLIFE



INSPIRING AMERICANS TO  
**PROTECT WILDLIFE**





## FOREWARD

April 2006

Nature can be amazingly resilient, capable of adapting to constantly changing ecological conditions. Wildlife habitats that are not encumbered by damaging human interventions are inherently durable and sustainable. But resiliency is limited. There is a solid body of peer-reviewed science warning that misdirected human activities are impoverishing natural systems around the world. Global warming, if not stopped, will fundamentally alter the planet's ecosystems at a rate that will simply outpace many species' ability to adapt to drastic change.

Today, we are about to pen a new chapter in the book of conservation. This chapter will be the most important ever written. Despite the incredible accomplishments of the past, wildlife in the 21st century faces its gravest threat yet as habitat fragmentation and degradation, invasive species and the rapid pace of climate change combine to trash ecosystems. Global warming threatens the survival of a million wildlife species and endangers the future of millions of people around the world.

Our children are at risk and they are increasingly disconnected from nature. How can they be good stewards if they don't understand how the world works—or if they don't have strong affinity with wild places and wildlife? We must redouble our efforts to reconnect Americans with nature as we address global warming and habitat destruction.

This plan is the product of shared responsibility. The National Wildlife Federation board of directors and staff worked together over many months to forge a compelling vision for action and a sharp focus on our critical priorities. Through a rigorous process of winnowing and sifting, we have concisely identified the key priorities to make a difference in this new chapter.

Achieving every outcome identified in our plan will require extraordinary and unprecedented partnerships. Our goals simply cannot be accomplished unless Americans of every perspective put aside their many differences and work together as never before. We must provide leadership to confront what promises to be the defining issue of the 21st century: energy and the environment.

A handwritten signature in black ink, reading "Jerome C. Ringo".

Jerome Ringo  
*Chair*

A handwritten signature in black ink, reading "Larry Schweiger".

Larry Schweiger  
*President & Chief  
Executive Officer*

A handwritten signature in black ink, reading "Thomas Gonzales".

Thomas Gonzales  
*Chair-Elect*



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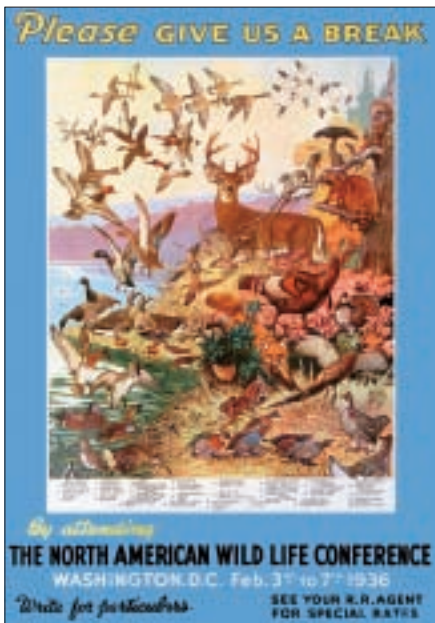
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COREL: TOP: VIRGINIA HETTMAN (USFWS)

LEFT, DIGITAL VISION; FRONT COVER, TOP, COREL; BOTTOM, LEFT TO RIGHT, EYEWIRE/GETTY IMAGES; BILL STOUT (NWF); CORBIS; EYEWIRE/GETTY IMAGES (2)

# 1. EXECUTIVE SUMMARY



**MONUMENTAL MEETING:** 70 years ago, some 2,000 conservationists converged on Washington, D.C., to attend the first wildlife conference in U.S. history. Out of that historic summit, NWF was founded.

Today's challenges to our natural world are outpacing wildlife's natural ability to adapt. Global warming, the loss of habitats and the increasing disconnect of people from nature are creating a perfect storm of weakened natural systems, human-caused climatic disruptions and growing public apathy. NWF's vision is to restore the balance of nature and protect wildlife for our children's future.

The following plan sets out the significant outcomes that NWF will focus on over the next 5 and 15 years to achieve that vision. NWF will need to organize and mobilize an extensive network of strong, diverse partners. This includes our existing partners such as the state affiliates and other wildlife groups as well as forging new partnerships with non-wildlife groups and communities that also have a stake in a healthy world.

## Confronting Global Warming

NWF is tackling global warming as the single most urgent challenge to protecting wildlife for our children's future. Our plan is to organize a groundswell of public awareness and action that will reposition the United States within the next five years as a world leader in reducing global warming pollution, inspiring international cooperation to achieve the long-term goal of cutting global emissions 60 to 80 percent by mid-century. We also will work to protect habitats to help wildlife survive in a world of rapidly changing climate.

## Restoring Wildlife

In order to protect and restore a robust network of terrestrial and aquatic habitats that support healthy native plants and animals, NWF will partner with federal, state and tribal decision-makers, private landowners and businesses to restore America's wildlife heritage. By the year 2020 wildlife conservation will be a top priority on hundreds of millions of acres of public, tribal and private lands, and along thousands of miles of streams rivers and coastlines across America.

## Connecting People with Nature

NWF will reconnect American children with nature by implementing programs that get the majority of America's children outdoors, deliver wildlife-based reading and education to one-third of all preschool parents and day care centers and provide outdoor skills training to the majority of U.S. children and youth on an annual basis.

The hard work of implementing this strategic plan will require extensive consultation, strategically focused work plans and campaigns, and continual consultation with the scientific community to measure our success. Ultimately, we believe our new path will lead not only to genuine conservation gains and improved capacity for NWF as a preeminent voice for wildlife. It will also build a strong foundation for a national movement that, by the year 2020, will restore a conservation ethic as a core American value.



## 2. A CALL TO ACTION

Americans enjoy a rich and proud wildlife heritage. For centuries, our land has supported great animal migrations that usher in the seasons: ducks heading south in the fall, elk moving down off the mountains at the approach of winter, cranes flocking across spring skies, salmon struggling upstream during summer to renew their circle of life.

The “wild” in wildlife is the ability of these creatures to move unfettered across their far-flung natural ranges. Indeed, wildlife can be amazingly adaptable, capable of adjusting to changing conditions over time. However, such resiliency is limited in scope and speed, and today’s challenges to our natural world are outpacing wildlife’s natural ability to adapt. Global warming, the loss of habitats and the increasing disconnect of people from nature are all converging to put as much as one-third of the world’s animal species on the path to extinction by mid-century. We must act now to ensure that a rich wildlife heritage will be in our children’s future.

While Americans have seen some gains in conservation over the past century, the natural world is becoming increasingly out of balance. Wildlife is caught in a “perfect storm” of weakened natural systems, human-caused climatic disruptions and growing public apathy. Consider:

- *As human population increases and land development and resource consumption accelerates, large-scale habitat systems such as rivers, coastal wetlands, avian flyways, forests, mountain regions, prairies and rangelands are divided up, dried up, cut down, polluted and fragmented.*
- *Unless we take immediate action to curtail global warming and help wildlife habitats adjust to rapidly changing climate, the rates of extinction and habitat loss will spike more sharply than ever before in human history.*
- *The majority of Americans no longer relate to the natural world in the same personal way that most people did in the past, fostering public apathy that is undercutting the nation’s commitment to resolving major environmental threats. If we do not reverse the growing trend of the “Xbox generation” to stay indoors, glued to electronic screens instead of playing outdoors, we will lose significant long-term public support for wildlife conservation.*

NWF’s vision is to restore the balance of nature and protect wildlife for our children’s future. To accomplish this vision, NWF will focus on bringing Americans together to revive habitat, confront global warming and reconnect people with nature.

Much of our effort today is expended in fighting repeated attacks on the fundamental protections for our waters, lands and our health. This important work to hold the line, however, drains grassroots energy and resources. It provides little promise for the progress we must achieve to protect wildlife for our children’s future. Faced with alarming evidence that global warming is accelerating, the time has come to spark a powerful movement in the United States that reestablishes conserving our sacred wildlife and natural resources. Creating a national conservation ethic must become one of America’s top priorities.



EYEWIRE/GETTY IMAGES; TOP: GARY ZAHN (USFWS)



### 3. RESTORING A NATIONAL CONSERVATION MOVEMENT



NWF: TOP: JEREMY WOODHOUSE (PHOTODISC/GETTY IMAGES); BOTTOM: JAK HOLLINGSWORTH (USFWS)

**WILDLIFE ADVOCATE:** Pricking the American conscience with his pen, NWF founder J.N. “Ding” Darling published this editorial cartoon in 1936, calling for the country’s conservation interests to work together.

In 1936, our nation’s wildlife resources were in crisis. Over-harvesting, drought and habitat loss had all combined to create alarming declines of wildlife populations across America. Against that dismal backdrop, Pulitzer Prize-winning editorial cartoonist Jay N. “Ding” Darling joined with President Franklin D. Roosevelt to convene the first meeting in the nation’s history devoted solely to conservation issues. In February, some 2,000 conservationists from all across the country converged on Washington, D.C., to create a new future for wildlife in America. Out of that historic summit the National Wildlife Federation was born—a federation of state affiliates that included hunters and anglers, wildlife managers and farmers, gardeners and other nature enthusiasts. In the months that followed, this federation organized an influential national movement that secured landmark legislation: the Pittman-Robertson Act, a federal law that continues to provide millions of dollars every year for wildlife conservation from excise taxes on hunting and fishing equipment.

Today, 70 years after its founding, the National Wildlife Federation has 47 state and territorial affiliates devoted to conservation. Collectively, they represent a million conservationists. When added to NWF’s four million Associate Members and supporters, the Federation has more than four million supporters, representing a cross-section of the nation’s political spectrum—people who care about the future of America’s wildlife and who are personally connected with our natural heritage.

Unfortunately, despite the hard work of NWF, its affiliates and thousands of other local, state, regional and national groups to protect habitat and restore animal populations, today our nation’s wildlife resources face unprecedented, complex threats. Creating a new national movement to reestablish a strong conservation ethic will require fresh approaches that not only unite millions of Americans who hunt, fish, watch wildlife and garden, but that also engages new partners from other sectors of our society, such as health care, agriculture, religion, job creation, communications and technology. To ensure that abundant healthy wildlife will be in our children’s future, NWF will organize, support and mobilize people from all of these sectors, reestablishing wildlife conservation as a value deeply held by Americans.

#### Traditional wildlife constituents:

- *Hunters and anglers:* NWF’s conservation roots lie with America’s 13 million hunters and 34 million anglers. Collectively, NWF and its affiliates represent more than 500,000 hunters and anglers—outdoor enthusiasts who are crucial to our success in protecting and enhancing public lands, streams and wetlands from major threats such as global warming and habitat destruction. Hunters and anglers also play important roles in keeping politics out of wildlife management.



- *Wildlife watchers:* More than 60 million Americans observe and enjoy wildlife through bird-watching, photography and other activities. NWF will connect these people with its traditional constituents to produce tangible efforts to protect and restore habitats. It will also utilize them as citizen naturalists in a national effort to monitor wildlife and weather.

- *Gardeners:* NWF has more than 60,000 certified backyard habitats and more than 3,000 volunteers who serve as Habitat Stewards, teaching others to garden for wildlife. It will increasingly focus such volunteer efforts on filling important habitat gaps in our nation's flyways.

- *College campus leaders:* America's college campuses have always been at the forefront of innovation in our society. NWF will build upon its Campus Ecology program to increase activities at colleges and universities across the country to help reduce global warming pollution and develop quality conservation and environmental professionals.



- *Natural resource professionals:* Thousands of professionals provide the scientific backbone for wildlife conservation at the local, state and federal levels. NWF will partner with government agencies and professional associations to defend sound science as the primary basis for wildlife management decisions. NWF also will help natural resource and wildlife agencies recruit highly skilled employees from diverse backgrounds.

By focusing on these traditional wildlife enthusiasts in the next five years, NWF will initially re-establish a cohesive national core of influential wildlife and outdoor leaders who will work together to protect wildlife for our children's future. However, NWF also recognizes that it can achieve even greater success by reaching out to new partners whose lives are being impacted by today's conservation and environmental problems—people who share its dream of ensuring that our children and our children's children will live in a healthy world where they can breathe clean air, drink clean water and enjoy a diverse array of wildlife and plants. This includes African Americans, Hispanics and other people of color whose lives often are heavily impacted by the effects of global warming pollution. It includes farmers and ranchers who are facing erratic and disruptive climate changes. It includes families in coastal communities, whose security is threatened by more destructive storms, and families in the nation's interior, whose land and property are at risk from record wildfires. It includes many faith-based communities that are alarmed at our society's failure to care for life on Earth. And it includes businesses and workers who are suffering from spiking prices due to an overdependence on fossil fuels and who are losing ground to other nations that are shifting to cleaner renewable energy.

## **New and emerging partners:**

- *Corporate and private landowners:* Millions of acres of quality wildlife habitat exist on privately owned lands. NWF will expand partnerships with landowners and land trusts to restore and protect species.

- *Native Americans:* Tribes affect conservation decisions on more than 95 million acres of land in the United States. Tribal leaders often must choose between short-term



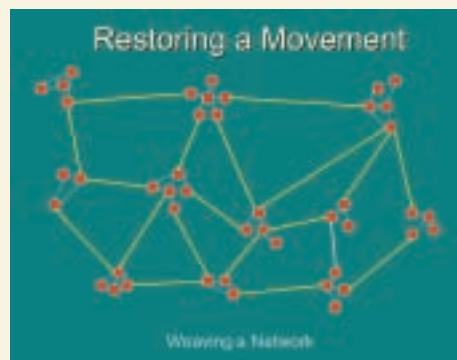
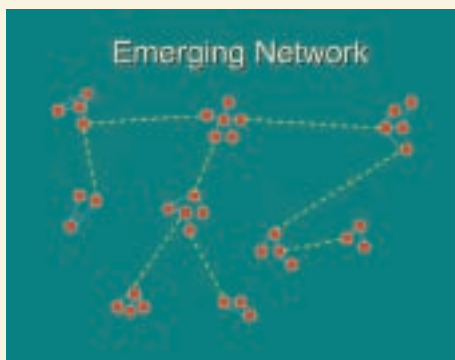
EUGENE HESTER (USFWS)

economic gain and long-term conservation of natural resources. NWF will expand on its relationships with tribal leaders to ensure that native cultures and their wildlife resources are protected.

- *Urban restoration groups:* To help provide healthy waterways and adequate green spaces for wildlife and people, NWF will enhance its relationships with urban and youth corps in U.S. cities located along major flyways.
- *Faith leaders:* Many religious leaders believe we all have a responsibility to protect the rich diversity of life on Earth. These leaders have powerful influence and millions of followers who affect decision-makers.
- *Health-care providers:* Wildlife often is an indicator of the ability of our environment and natural systems to safeguard human health. NWF is reaching out to health-care providers, particularly pediatricians, in an effort to educate them about the health benefits of getting children outdoors.
- *Community influentials:* Across America, more than 20 million people play influential roles in their communities every day. These influentials also tend to be more educated and environmentally aware than the general public. NWF will support and network these leaders to help ensure that they enhance community investments in healthy wildlife habitat.

To knit this broad swath of America into a national conservation movement, NWF will embrace a culture of reciprocity that weaves together groups and communities with common interests of all ethnic backgrounds into a strong grassroots network. As a federation, NWF understands that in order to develop strong partnerships a culture of reciprocity as compared to a command and control culture—where strategies, resources, expertise and decisions are highly centralized—is needed.

A command and control culture can best be visualized as a “spoke and hub” structure (see figure) with a strong central entity that sends requests and directives out to the periphery. Since few decisions and resources are invested in the grassroots, few leaders emerge and creativity, innovation and enthusiasm are stifled. In contrast, a culture of reciprocity engages partners first by listening and understanding their needs, aligning those needs with a mission and at times adjusting assumptions based on relationships with partners. The national grassroots network that results (see figure) will require significant, long-term investments in leadership development and in creating strong ties among these influential leaders. To accomplish these goals, NWF will invest in a Center for Grassroots Support that will increase the capacity of local groups and communities, enhance communications between the leaders of such communities, and align the efforts to create significant advances for wildlife.



## 4. IMPLEMENTING THE PLAN

This section sets out the significant outcomes that NWF will focus on over the next 5 and 15 years. Time is of the essence in first five-year phase of the plan to effectively address the greatly accelerating impacts of global warming before it's too late. Clearly, the Federation will need to organize and mobilize an extensive network of strong, diverse partners. Such partnerships will be with affiliates and many other colleague wildlife groups. Additionally, we will join forces with many non-wildlife groups that also have a stake in a healthy world.

Success over the next five years will build a strong foundation for a national movement that, by the year 2020, will restore a conservation ethic as a core American value. By the year 2020 Americans across political and cultural boundaries will be united in a commitment to leave a better natural world for our children and our children's children.

### STRATEGIC FOCUS: GLOBAL WARMING ACTION

For the first time in history, we are nearing the tipping point in an ecological crisis that could see wholesale loss of wildlife populations and profound changes in our outdoor way of life. Severe climatic disruptions that have long been the subject of scientific speculation are now striking with a speed and intensity that is shocking climate scientists. For example, new studies have documented a 50 percent increase in the power of hurricanes as ocean temperatures have warmed during the past three decades, an impact all too apparent in the record-breaking Atlantic hurricane seasons of the past two years.

In particular, scientists are increasingly concerned that rising pollution levels in the atmosphere are approaching concentrations that could lead to runaway global warming and produce irreversible, dramatic changes in sea level and in ocean currents. An area of Siberian frozen tundra as large as France and Germany combined already has started to melt for the first time in millions of years, threatening to release into the atmosphere billions of tons of greenhouse gases long harbored in the frozen earth.

New data are also showing that Greenland's ancient ice cap is breaking up and melting at a record pace, raising the possibility of rapid disintegration. Scientists are now warning that global sea level will rise by as much as 75 feet, dramatically altering the face of the planet.

Wildlife species are ill-prepared to meet the threat of global warming's rapid and disruptive climate changes. Independent studies by teams of scientists have con-

*“How long have we got? We have to stabilize emissions of carbon dioxide within a decade, or temperatures will warm by more than one degree. That will be warmer than it has been for half a million years, and many things could become unstoppable.... We don't have much time left.”*

*—Dr. James Hansen, director of NASA's Goddard Institute for Space Studies*



NOAA; TOP PHOTO, JOHN AND KAREN HOLLINGSWORTH (USFWS)

*United States emissions of carbon dioxide are forecasted to increase 13 percent over the next decade, based on current energy and global warming policies.  
—Forecast from the U.S. Department of Energy, December 2005*

cluded that, within the next 50 years, as many as a third of the species in studied regions could be headed for extinction from global warming and from the continued disruption of habitat. Species that survive may see large reductions in populations. For example, global warming-induced drought conditions in the Prairie Pot-hole Region could lead to as much as a two-thirds decline in the abundance of ducks breeding in the region, affecting populations of mallards, gadwall, blue-winged teal, northern pintails, canvasbacks, redheads and ruddy ducks throughout North America's flyways.

The rapid pace of climate change is already unraveling the threads of many ecosystems that nurture wildlife. In recent decades, parts of the Caribbean have lost as much as 80 percent of their coral reefs to warming seas. In Alaska and other parts of the nation, millions of acres of forestlands have been wiped out by beetle outbreaks brought about by warmer winters.

Progress in combating global warming has been indefensibly slow. Biologist Rachel Carson warned about global warming more than 50 years ago, and hundreds of others have rung the alarm since. Nevertheless, the United States—producing a quarter of the world's emissions—has declined to become an international leader in combating global warming.

The science of global warming penalizes procrastination. Much of the carbon dioxide we pumped into the atmosphere a century ago is still trapping heat, and the pollution we have released since then and that we will release in the next few years will almost irreversibly affect the lives of our children and our children's children. Yet scientists are optimistic that we can head off many of the more severe and alarming impacts of global warming if we take bold and urgent action. Today, growing opportunities position us for success:

- *New allies are stepping forward to help us push for action. The mounting toll of global warming and the economic burden of fossil fuel dependency is inspiring farmers, mayors, the faith community, workers, businesses and other powerful allies to advocate for a clean energy future.*
- *Our scientific understanding of how global warming affects wildlife and Americans continues to improve. Today's information goes well beyond the impersonal data of global temperature changes and glacial melting that have characterized public education for the past two decades.*
- *Technology solutions have become more tangible and visible to the public as 50-mile-per-gallon cars, 12-watt compact fluorescent light bulbs and other energy saving technologies have become available to the mass public.*
- *After years of international negotiations outside the public's eye, the global warming debate in the United States is being refocused on the need for nonpartisan local and national action. This change provides opportunities for the sort of grassroots organizing that has been the foundation for other landmark conservation and environmental achievements.*



CORBIS

NWF is tackling global warming as the single most urgent challenge to protecting wildlife for our children's future. The organization is pursuing four goals that apply NWF's core strengths to the problem and that recognize the group's important role in encouraging partners to become leaders in confronting global warming.

## Goal 1: Reduce U.S. global warming pollution

First and foremost, NWF will address global warming at its root cause: the carbon dioxide that is building up in the atmosphere and altering the Earth's climate.

Global emissions of greenhouse gases continue to increase year after year, accelerating global warming as the pollution builds up in the atmosphere. U.S. emissions alone are expected to grow 13 percent over the next decade if we fail to take steps to curb pollution. Scientists are warning that we have 10 years to stabilize global emissions of carbon dioxide and other heat-trapping global warming pollution.

To meet that deadline, we have at best five years to force decisive action here in the United States. U.S. industry is planning massive investments during the next five years that will determine our pollution levels for decades to come. Two-thirds of the growth in U.S. emissions is expected to come from spikes in energy demand from two sources: oil for transportation and coal for electricity. For example, electric utility companies have proposed building 129 large coal-fired power plants throughout the nation. Built to last more than 50 years, these plants will emit 35 billion tons of heat-trapping carbon dioxide to the atmosphere over their lifetimes.

The technologies to curb global warming pollution exist today. Consider this: Replacing a single, standard light bulb in your home with a modern compact fluorescent light bulb available at almost any hardware store will—over the bulb's lifetime—save enough electricity to conserve more than 500 pounds of coal. Even SUVs are being built with dramatic improvements in fuel economy due to a host of technologies, led by the hybrid gasoline-electric system. The immediate challenge to stabilizing emissions is not technological but political. We have lacked effective leadership for charting a course to deploy these and other low-pollution technologies.

To transform fully the energy investments being made across the nation in all sectors—from electric power plants to cars and trucks—an effective federal plan of action is needed that fundamentally shifts the nation's energy priorities and that rewards investments in energy efficiency and in cleaner, renewable energy technologies. The centerpiece of such a plan would be an emissions trading program—mod-



PHOTO: GETTY IMAGES

eled after the successful Clean Air Act program for acid rain—that allows industry, investors and consumers to develop the best means possible for meeting pollution-reduction targets set by regulation.

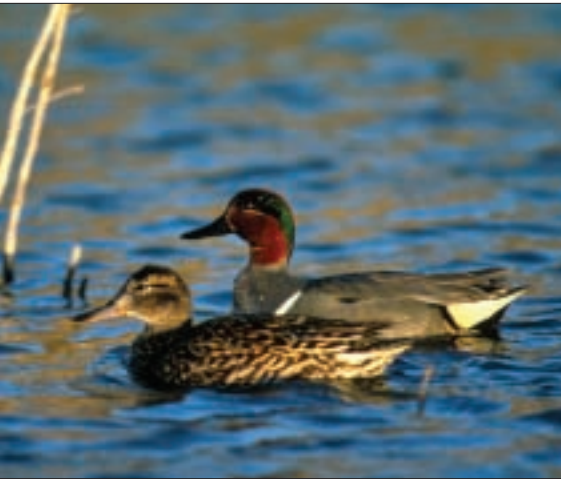
We will build toward such a federal plan from the ground up, working to mobilize targeted communities to provide leadership in reducing emissions at the local and state level. The new federal climate plan would also be complemented by reforming existing federal policies, such as U.S. farm policy, so they promote the use of natural systems in removing carbon dioxide from the atmosphere and also support biofuels and other renewable energy alternatives to fossil fuels. Finally, the federal climate plan would be supported by other state and federal solutions that encourage clean fuels, including important initiatives to reduce toxic mercury pollution from coal-fired power plants.

### 5 Year Outcomes:

- A federal plan of action that includes national limits on U.S. global warming pollution and an emissions trading program that provides market-based incentives for reducing pollution will be enacted.
- U.S. farm policies will be improved to promote wildlife-friendly renewable energy and storage of carbon in natural systems.
- Laws to reduce industrial mercury pollution by at least 90 percent will be enacted.

### 15 Year Outcome:

- A comprehensive framework of government policies, personal and corporate actions, and land use practices will be built that yields more than a 2 percent decline in U.S. global warming pollution yearly by 2020 and beyond, with a long-term goal of cutting emissions 60 to 80 percent by mid-century.



DAVE MENKE (USFWS)

## Goal 2: Organize powerful grassroots support for global warming action

Achieving global warming goals will require a powerful grassroots call for action. NWF will focus foremost on organizing and mobilizing the constituencies that have made the group a strong political and societal force for 70 years: hunters and anglers, wildlife watchers and gardeners, wildlife professionals and other conservationists. Staff will partner with state affiliates to help strengthen the capacity of these constituencies as they advance the cause of global warming solutions.

NWF will complement this wildlife mobilization with expanded efforts to activate youth on college campuses, engage minority communities and build capacity among Native American tribal leaders to engage on global warming. This outreach will strengthen the call for action on global warming while expanding NWF's diversity and longer-term capacity.

NWF recognizes that just mobilizing its base of traditional wildlife enthusiasts is not enough and that reaching out to new partners is critical to success. As it accomplishes this outreach, its global warming efforts also will provide a unique opportunity to help rebuild the long-term conservation movement. By partnering with new constituencies to fight for climate action, NWF can reconnect more people to the importance of protecting wildlife and of restoring balance to nature, thus building long-lasting support for conservation.



SARAH LEEN, NATIONAL GEOGRAPHIC IMAGE COLLECTION

With the failure of our elected officials in Washington to provide leadership, NWF's strategy is to energize communities from around the nation. These measures ultimately will compel elected federal officials to join in with a national plan of action. Over the next five years, NWF will organize grassroots support town by town, focusing its resources on building effective community networks in key states that are vital to overcoming political resistance in Washington. It will adapt and learn as it proceeds from community to community, experimenting with different approaches to organize and mobilize support early in the process, then replicating successful models in greater number as it builds resources for the effort. NWF will rely on partnerships, working with other leaders of wildlife, environmental, labor, farm, business, faith, student and other constituencies to provide additional direction and to amplify its impact.

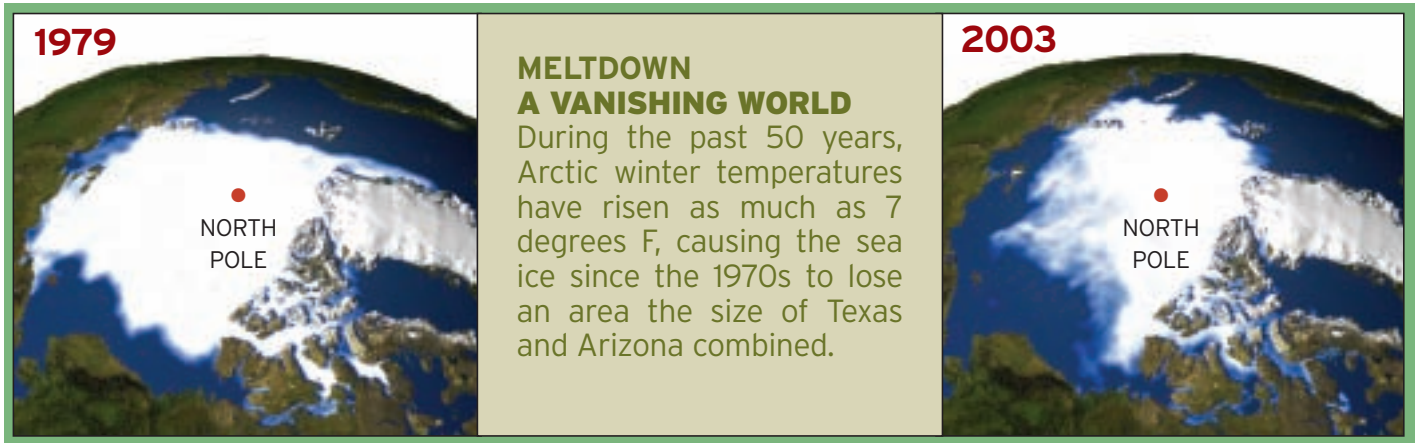
**SEEKING SOLUTIONS:** Replacing one incandescent light bulb with a compact fluorescent will save energy consumption equivalent to this 500-pound pile of coal.

### 5 Year Outcomes:

- Fifty U.S. communities will lead the way in reducing global warming pollution and mobilizing for U.S. action.
- A national coalition of more than 1,000 sportsmen and conservation groups will be established to support global warming action to protect wildlife.
- A U.S. Campus Climate Campaign will reduce the greenhouse gas emissions of 1,000 major colleges and universities by 2 percent yearly.
- Climate Justice partnerships will be created to ensure Native people have a voice in national global warming policy debates.

### 15 Year Outcome:

- A wildlife conservation movement will be forged that is a decisive political and social force; that movement will focus on achieving our global warming goals.
- One thousand U.S. campuses will reduce greenhouse gas emissions by 30 percent.



### Goal 3: Protect wildlife in a world of changing climate

Even as we tackle the root problem of global warming by reducing emissions, we must face the realities of global warming’s mounting impacts on wildlife. Global warming is already changing the climate throughout the nation, bringing new stress to bear on wildlife already pushed to the brink by habitat loss and other threats. NWF’s strategy is twofold: To help wildlife managers plan for the impacts of climate change, and to ensure that they have the financial resources to take necessary steps to protect wildlife in a changing climate.

#### 5 Year Outcomes:

- \$1 billion annually in federal funding will be secured to restore and protect habitat in ways that strengthen wildlife’s ability to survive changing climate.
- Fifty state wildlife agencies and relevant federal agencies identify global warming strategies in their resource management plans, and Congress provides adequate funding for achieve the priorities in state wildlife plans.
- Climate change strategies are incorporated into 15 management plans for specific units of national refuges, forests, parks and BLM districts in order to secure the potential for wildlife to cope with climate change.
- Federal wildlife protection laws are maintained and strengthened by including “precautionary approach” provisions and incentives to assist climate-stressed wildlife in coping with the habitat changes triggered by global warming.

#### 15 Year Outcome:

- Wildlife species, vital wildlife habitat areas and resource systems will survive changing climate conditions in all 50 states.

### Goal 4: Foster U.S. international leadership on global warming and sustainable development

The ultimate success of our global warming efforts will require global cooperation. By compelling the United States to act on global warming within the next five years, we will unlock new opportunities for international agreements and technology sharing. U.S. leadership in the near term will be needed to help developing nations con-



tol their rapidly increasing emissions. With American industry leading the way in reducing global warming pollution at home, we can turn our attention to exporting low-polluting technologies overseas, thus fostering global solutions while creating American jobs. Early intervention is important, and NWF will take action over the next five years to bolster aid and other policy initiatives to assist developing nations in order to reduce the energy, land use and population pressures contributing to global warming.

### **5 Year Outcomes:**

- The United States is an international leader forging global agreements to reduce global warming.
- Clean-energy assistance for developing nations is provided by increasing by 50% funding for clean energy through the U.S. and multilateral institutions.
- Global population pressures are reduced by increasing U.S. funding for international family planning to \$850 million a year, and the United States reinstating funding to the United Nations Population Fund.
- \$5 billion of U.S. international aid will annually provide environmental safeguards for important wildlife habitats globally.
- Sustainable trade, investment and agriculture are priorities in three major multilateral agreements.
- Criteria are adopted by those countries that support increased production of biofuels, so that biofuels production is energy efficient and wildlife friendly.

### **15 Year Outcome:**

- U.S. international leadership forges global climate agreements to reduce energy, land use and population pressures in order to reduce global warming pollution by 60 to 80 percent by 2050.

# STRATEGIC FOCUS:

## PROTECT AND RESTORE WILDLIFE

### Goal 1: Protect and restore a robust network of terrestrial core habitats, buffers and corridors that are most critical to native wildlife

Wildlife knows no boundaries, therefore divisions between federal, state, tribal and private lands rarely correspond with their habitat needs. Nevertheless, the work of wildlife managers is governed by laws and regulations that vary depending on ownership types and objectives. In order to protect and restore a robust network of wildlife habitats NWF must work effectively with federal, state and tribal officials as well as with private landowners to make wildlife conservation a top priority. Vast tracts of important intact wildlife habitat are held in public ownership and managed by federal and state government agencies. An even larger amount of land is held in fragmented, dispersed private ownership, often in parcels of less than 100 acres.

All across the country, both private and public lands feel the steady and cumulative impact of many cycles of timber harvesting, overgrazing, mineral extraction, plowing and cultivation, road building, and the damming and diversion of waters. These threats combine with global warming and invasive species to pressure wildlife and habitat quality, sometimes with catastrophic results. Today the conservation agenda for much of our country's landscape is one of restoration. The science and techniques of restoration are rapidly evolving and a national commitment to habitat restoration is urgently needed. This commitment is needed not simply to achieve some nostalgic primeval condition of pre-European settlement, but to restore the ecological capacity of the landscape to support a diversity of plants and animals. Restoring healthy interconnected habitats is a guiding principle for NWF in its work on private, tribal and public lands.



DAVE MENKE (USFWS)

Public agencies face a number of challenges, including shrinking budgets, pressure to generate revenue and diverse and often inconsistent missions for land management. The “multiple use” doctrine guiding many public agencies has unfortunately led to a steady erosion in habitat value as a result of mining, logging, grazing, water development, intensive recreation and oil and gas extraction. Despite the negative effects these activities have on habitat quality, public lands are key to maintaining our wildlife heritage, especially in the West.

NWF will strive to keep public lands in the public’s hands while ensuring that public lands maintain healthy wildlife populations and provide alternative habitats and connections to these habitats as global warming shifts wildlife into new areas. Public lands also serve as living classrooms to educate and inspire Americans and are economic engines for local communities. Conservation victories on these lands can affect hundreds of millions of acres of wildlife habitat, vastly magnifying our impact on wildlife conservation.

Native American tribes manage some 95 million acres of land. Because much of this land is undeveloped, the tribes offer important opportunities for protecting and restoring wildlife species found no where else in the nation. Tribal lands can also serve as important refuges for wildlife impacted by climate change and they can connect blocks of adjacent public lands. Integrating aquatic and terrestrial conservation on these lands provide some of the best opportunities for fish and wildlife to survive the mounting effects of global warming. Tribal lands have an important role in offsetting global warming pollution, through sequestration of carbon stock and provision of renewable energy sources such as wind and solar. By empowering and assisting tribal land managers, NWF can form partnerships that lead to significant conservation and restoration of critical landscapes for wildlife and indigenous cultures.

While frequently less recognized, significant wildlife habitat is also held by private landowners, including large acreages devoted to agriculture and forestry. Much of this land is in low-lying areas and within major watersheds and flyways containing habitat for some of the nation’s most imperiled species. Over the next two decades, the demographics of these landowners will change radically as an aging population of ranchers, farmers and family forest land owners retires or passes lands on to heirs, and as corporate owners divest and sell off their lands for non-resource uses.



GEORGE H. HUEY



PHOTO: DISC/GETTY IMAGES

Private land conservation today—beyond what is required to comply with regulatory baselines—consists of an array of market-based and tax policy incentives, recognition and reward systems and assistance through public cost-share programs or outright subsidies. The goal of many such efforts is to restore or protect various “ecosystem services” such as drinking water supply, open space, public access, habitat quality, or working farmland. Oftentimes in designing policy instruments for private lands, it is difficult to get the “price right” because these services are not easily valued and there are fundamentally different perspectives on how much of these ecosystem services landowners are morally obligated to provide versus what society should pay for. While no one believes we should pay landowners “not to pollute” – that is, to abide by pollution limits established by law—neither do we believe that private landowners have an unlimited obligation to provide services above such baseline requirements without incentives.

We may hope that over time Aldo Leopold’s famous “land ethic” will be widely embraced, yet many landowners have rational economic reasons for owning their land and respond to market forces that lead inevitably to the development or degradation of natural resources. Thus certain types of incentives, often at relatively low cost to society, are legitimate strategies for protecting wildlife habitat on private lands.

Several key facts have contributed to our terrestrial habitat conservation goals. These include:

- While the U.S. is no longer a net carbon emitter from deforestation or soil erosion, the ability to absorb additional carbon from private management activities is limited without major changes in land use practices and new economic incentives. However, studies indicate that sequestration costs are comparable to emissions abatements.
- Private forest lands account for nearly 63 percent of all forest land in the United States and nearly 60 percent of all timberland for traditional forest products. There are 10.3 million private forest lands owners nationally, yet more than 60 percent of

them are over the age of 55 and more than 50 percent are older than 65, indicating a significant inter-generational transfer of the nation's forest land base is looming.

- As much as 40 million acres of existing, privately-owned southern forest lands will be lost to fragmentation and development in the next 40 years, and many large traditional timberland owners will sell or have already sold to new investment entities that typically have a 10-20 year time horizon before cutting, sub-dividing, and re-selling their forest lands.

- Each acre of Eastern Forest sequesters roughly 31 tons of carbon at an estimated \$65 per ton, yet 70 percent of the nation's harvesting and four of the top five states for forest land loss are in the 22-state Eastern Forest region.

- Federal public lands cover more than 600 million acres, or 25 percent of the total U.S. land base; 106 million acres are permanently set aside as wilderness. More than 600 million visits are annually recorded on public lands.

- According to a recent poll, 92.7 percent of U.S. citizens agree or strongly agree with the statement "I am glad there are National Forests even if I never see them" and 75.3 percent strongly agree that "future generations should be as important as current in public lands decisions."

- About 10 percent of grassland/shrubland species are critically imperiled; about 17 percent are considered "at risk." Shrubland birds such as the sage grouse are declining faster than any other group of North American grassland birds. Only 0.1 percent of native tallgrass prairie remains undisturbed, and only 2 percent of the original native grass prairie survives. The overwhelming majority of intact shrublands and grasslands are in public and tribal ownership.

- Land conservation is critical as we overwhelm the private land base with development. In many states, the percent increase in land consumption for development greatly exceeds the percentage increase in population; 75 percent of U.S. citizens now live on urban or suburban lands.

## 5 Year Outcomes: Terrestrial

- Federal and state public lands experience no net loss in order to provide quality habitat accessible to America's wildlife.

- At least ten ecologically significant wildlife habitats on key public land units are protected through community-based campaigns.

- \$5 billion is secured to restore six priority habitat regions identified by mapping for migratory and endemic species.

- At least 50,000 acres of tribal lands are managed as wildlife habitat and at least 3 tribes set aside at least 5,000 acres each as a climate change refuge or migration route for native species.

- Federal tax incentives encourage conservation through estate planning and land transfers increasing the protected status of non-industrial private lands by 10%.

- An additional ten million acres of agriculturally-dominated private lands will benefit wildlife in a substantial way.



JIM CLARK (USFWS)



JOHN AND KAREN HOLLINGSWORTH (USFWS)

- Wildlife-friendly standards for renewable energy crops and sequestration projects are in place in six states and four tribal communities where significant carbon offset opportunities exist.
- Twenty percent of the world's working forests are maintained in sustainable forest management through a credible, independent forest certification system.

### 15 Year Outcomes: Terrestrial

- The state and federal public land estate experiences a net gain of acres.
- Twenty percent of the intergenerational transfer of non-industrial ownerships are placed in a conservation status in key regions.
- Long leaf pine systems in five southeast states are restored from an existing 3 percent to 10 percent of their historic range.
- Sustainable eco-tourism programs are developed with at least three tribes and with community interests in three critical habitat regions across the country.
- At least one new community-based wildlife/public land advocacy group is supported and assisted in each of the western public lands states.

### Goal 2: Protect and restore a robust network of aquatic habitats most critical to the nation's freshwater and coastal plants and animals

North America's aquatic resources—rivers and streams, lakes and ponds, wetlands and coastal waters—are among the planet's biologically richest. Our fresh waters alone harbor two-thirds of the world's crayfishes, a third of its mussels and one-tenth

of its freshwater fishes. These systems, particularly freshwater systems, are also among the world's most threatened. Faced with deteriorating and potentially catastrophic declines in aquatic habitats, public and private groups from several regions have over the past decade begun devising and seeking federal support for large-scale ecosystem restoration programs. These recent efforts—in the Everglades, coastal Louisiana, the Great Lakes, Puget Sound, the Upper Mississippi River, the Columbia River, and the San Francisco Bay-Delta—join the 30-year-old Chesapeake Bay restoration program in a growing movement to restore ecological function to heavily impacted, large scale aquatic systems.

Published assessments of threats to water resources also identify the timing and quantity of freshwater flows as critical to the health and vitality of wildlife, particularly in



ALAMY

the face of climate change. Although flow alterations have long been a critical problem in the arid western United States, they are now becoming an issue even in the wetter eastern part of the country as water consumption increases in tandem with human population growth. We have a narrow window of opportunity to solve these problems, especially as global warming increases temperatures and alters precipitation patterns. And as human demands for water continue to grow, competition for this scarce resource will intensify, making it increasingly difficult to ensure adequate water flows for wildlife.

Wetlands are particularly important aquatic systems. In addition to the water-quality and flood-control benefits they provide to humans, wetlands—so diverse in form and dispersed in location—are the foundation for productivity in other, larger aquatic systems. Wetlands and headwaters streams, for example, contribute greatly to food webs downstream and are vital for maintaining species such as trout and salmon. Riparian wetlands serve as spawning areas and nurseries for many fish species. Coastal wetlands support a tremendous diversity of plant and animal life and serve as stopover sites for migratory birds, as do prairie potholes and playas.

Several key facts have contributed to our aquatic habitat conservation goals. These include:



- Freshwater aquatic systems are home to 12 percent of animal species worldwide and in some areas serve as the primary breeding and feeding areas for 25 percent of all birds and 11 percent of all mammals.

- The tidal, sheltered waters of estuaries worldwide support diverse communities of plants and animals and produce more organic matter per acre per year than forest, grassland, or agricultural land. The 2004 Strategic Guidance for the North American Waterfowl Management Plan names more than half a dozen U.S. coastal waters as being of “continental significance” to North American geese, swans, and ducks.

- The prairie potholes of the Great Plains are estimated to produce up to 50 percent of the continent’s waterfowl population. The 25,000 playa lakes found in and around the Southern High Plains of Texas and in Nebraska’s Rainwater Basin are used by 170 bird species, including waterfowl, during spring and fall migrations. Playas also support mammals, amphibians and insects, and in some areas help recharge underlying aquifers such as the vast Ogallala.

- The Environmental Protection Agency’s 2000 National Water Quality Inventory identified 39 percent of assessed rivers and streams as having “impaired” water quality, much of it due to sediment- and nutrient-laden runoff from agricultural lands. The inventory also found water-quality impairment in 51 percent of the nation’s estuaries.

### 5 Year Outcomes: Aquatic

- Mechanisms are in place to protect and restore biologically appropriate flow regimes for nationally significant watersheds in six states through state and federal actions.

- Public and private mechanisms are in place to protect and restore the ecological functions of 6 to 8 major watersheds and ecosystems, backed by a Congressional commitment of \$80 billion.

- Congress and federal agencies affirm their statutory responsibility to protect the nation’s wetlands and expand their support for wetlands restoration.

- Key urban streams and watersheds in 5 to 10 flyway cities are restored for the benefit of migratory birds and endemic species by working with strategically chosen communities and diverse constituencies.

- Three water-threatened tribes develop water quality codes and protect instream flows for wildlife. NWF will encourage one tribe to maintain their adjudicated treaty water rights and allocate a portion of those rights for instream purposes.

- \$800 million annually is directed to improve water and sanitation services abroad, with fifty percent of this funding going to the 30 countries most at need. The U.S. administration will develop and implement a detailed workplan to this end as required by The Water for the Poor Act of 2005.

### 15 Year Outcomes: Aquatic

- Biologically appropriate flow regimes for nationally significant watersheds in the majority of states are established through state and federal actions.



CORBIS, TOP; GREG A. SVETSON (USFWS)

- Large-scale restoration programs measurably improve the ecological functions for 6-8 major watersheds and ecosystems.
- The extent and functional value of our nation's wetlands is enhanced through vigorous enforcement of existing protections and aggressive use of incentives for restoration.
- Key urban streams in a majority of flyway cities are restored for the benefit of migratory birds, endemic species, and local communities.
- The proportion of people without access to adequate sanitation worldwide are halved from one-third of the global population to one-sixth, thereby reducing the amount of raw sewage that flows into freshwater and coastal ecosystems.

### **Goal 3: Protect and restore viable populations of native plants and animals in healthy patterns of abundance and distribution**

A new generation of threats to wildlife requires new approaches. The number of U.S. citizens engaged in wildlife-based recreation is declining, while society as a whole is becoming increasingly disconnected from wildlife and wild places. Many species, meanwhile, are expected to be dramatically affected by climate change, and many of these will be unable to survive without new, unprecedented efforts to restore local habitats accompanied by efforts to maintain connections between existing habitats and reestablish connections that already have been lost. Although public resource agencies and the wildlife science community possess the technical and monitoring skills to restore wildlife, populations of several key species continue to decline due to problems such as inadequate funding, the incremental erosion of habitat through fragmentation, development and pollution.

In 2000, Congress provided an opportunity to turn this situation around when it enacted the so-called "CARA Lite" legislation, which calls for each state to develop a comprehensive wildlife conservation strategy by October 2005 as a condition of receiving State Wildlife Grant funds. In response, many states have begun preparing impressive incentive-based strategies, along with cutting-edge mapping technologies for protecting, managing and restoring a network of habitats for native species. Once completed, each state strategy will provide a long-term conservation vision around which citizens and communities can mobilize and produce on-the-ground results. To turn these visions into reality, conservation leaders will need to educate a diverse array of individuals and organizations on these strategies and to coordinate implementation efforts. Such an enormous challenge cannot be met by one organization alone. As a true federation, NWF will contribute though its strong vision for the future of wildlife and its ability to reach out across traditional divides.

Several key facts have contributed to our goals for native species conservation. These include:

- Approximately two-thirds of recently completed state wildlife plans mention the significance of global warming to species conservation, but only 16 states include strategies for dealing with the problem and only 6 identify specific actions.
- Public and tribal lands form core habitats for rare top-order carnivores including the lynx, grizzly bear, gray wolf and Florida panther.
- More than 350 nonnative invasive species are found in U.S. forests, with 30 percent of them causing serious damage to forest health and the forest products economy.



COMSTOCK

- It is estimated that tribal lands provide habitat critical to the recovery of more than 126 threatened and endangered species, many of them culturally significant to the tribes.
- According to the Bureau of Indian Affairs, there are more than 525 federally listed plants and animals on tribal trust lands.
- Nationally significant shrubland “biodiversity hot spots” are found in large areas of Arizona, parts of southern Nevada and California, and the within the three-state Greater Yellowstone Ecosystem. Shrubland birds (e.g., sage grouse) as a group are declining the fastest among North American grassland bird species.
- Nationally significant and imperiled forest habitats include, but are not limited to: the Cumberland Plateau region of the Appalachian forest, the forested coastline and coastal mountains of the Pacific west, southern pine forest systems along the Gulf Coast and Piedmont Plain, and the Northern hardwood forests of northern New England. Many of these forest systems contain threatened aquatic species.
- Some 37 percent of U.S. freshwater fish species, 67 percent of mussels, 51 percent of crayfish and 40 percent of amphibians are threatened with extinction or have already become extinct. Freshwater species face extinction at a rate that is five times that of terrestrial animals.

## 5 Year Outcomes: Native Species

- Ten threatened and endangered species with powerful story-telling values are recovered through national restoration campaigns.
- Ten species immediately threatened by global warming are protected through targeted restoration and media campaigns.
- Wildlife management and habitat connectivity is strengthened in 10 states through state wildlife plans, funding support and transportation projects that reduce wildlife mortality.
- Federal farm conservation programs target assistance to regions of highest species concern and ecological threat and promote practices that manage land for multiple ecosystem services rather than single-stream benefits or commodities.
- Livestock-predator conflicts are eliminated on an additional 200,000 acres of federally managed lands, totaling 500,000 acres retired from grazing.
- Market-based approaches generate consumer preference for six natural products and services that provide significant, verifiable wildlife benefits.
- Wildlife regulations are established on five tribal reservations in conjunction with assistance in natural resource management planning, resulting in the restoration of one ESA-listed species, two key foundation species and two key icon species on tribal lands.

## 15 Year Outcomes: Native Species

- Effective public education strategies and partnerships lead to the reduction of the impact of invasive species on natural systems in three critical regions.



TRUY SENSER

- Ten endangered species will have been recovered and their protected ranges expanded by at least 10 percent.
- State natural resource and wildlife agencies are enabled and empowered to be leaders in biodiversity conservation.
- Tribes will receive significant federal funds to restore and conserve foundation, icon, ESA-listed and climate stressed species.
- “Road ecology” planning and mitigation is accepted practice among all state transportation agencies to limit wildlife mortality and secure habitat connectivity.



GEORGE GENTRY (USFWS)



ELISE SMITH (USFWF)

## **STRATEGIC FOCUS:** **CONNECTING PEOPLE TO NATURE**

Outcomes for connecting people to nature will be measured according to: the degree to which large audiences are affected on a societal scale; the regularity or degree of repetition through which we reach them; and our ability to deliver the types of educational, volunteer and outdoor programming and a proven manner that will produce measurable learning improvements and pro-conservation attitudinal shifts. NWF will establish and adhere to outcomes measured through sampling, testing and survey research. These measures will determine the effectiveness of NWF programs in reaching, increasing the skills and knowledge of, and elevating pro-conservation attitudes and behavior in target audiences.

### **Goal 1: Reverse the growing problem of childhood nature deficit disorder**

Traditionally, the American conservation movement has relied on individual citizens' connection to the natural world that grew out of significant time spent playing outdoors as children. But today the situation has changed. Now most U.S. children spend the majority of their time indoors glued to television, video games and other electronic technology. Schools and daycare facilities, meanwhile, are scaling back on field trips and other out-of-classroom activities. Today the modern child's distant connection to nature may, in fact, represent the greatest long-term threat to conservation the nation has ever faced.

The strategies we will employ to reverse the growing problem of nature deficit in American children include implementing a wide-ranging public awareness campaign that results in a majority of children spending enough regular time outdoors that they develop a lasting affection for and connection to wildlife and nature. We will also target preschool children by developing and delivering a wildlife-based

reading and education program that will be used by one-third of all preschool parents and day care centers. Finally, we will develop and implement an “NWF Outdoors” program that offers outdoor skill training and development to the majority of U.S. children and youth on an annual basis.

### 5 Year Outcomes:

- Design and implement a nationwide “outdoor hour” or “green hour” campaign that reaches a majority of U.S. parents, caregivers, educators and children, is convincing and provides substantive education and activity tools for increased outdoor time.
- Create policy reforms at the state and national level in education, health, and conservation that result in daily outdoor time for 10 million children through institutions such as schools, after school programs and day care centers.
- Design and deliver a nationwide nature reading program that will result in one million U.S. parents reading regularly about wildlife to their toddlers and preschoolers and thus improving their connection to nature.
- Achieve policy reforms in five states to make outdoor time and educational activities for young children a regular part of day care provision.
- Reach two million young people annually with outdoor skills programming in partnership with NWF affiliates and major recreation providers.
- Recruit 1,000 outdoor education organizations to actively support educational and outdoor recreation components of the “Wildlife Restoration Trust” and state wildlife plans.

### 15 Year Outcomes:

- Ensure that 35 to 40 million children will routinely be spending time outdoors in nature, solving the problem of nature deficit in future generations of children.
- Ensure that one-third of U.S. parents and day care providers will be both regularly reading to and educating three million preschoolers about nature and wildlife.
- Through partnerships and leveraging, ensure that outdoor skills education and opportunities are annually provided to 30 million U.S. school-aged children.

## Goal 2: Make the U.S. conservation movement more racially and culturally diverse

In the next 15 years, a third of all U.S. residents will be from Asian, African, Pacific, Native American and South and Central American backgrounds with a variety of different views and attitudes toward wildlife and conservation. By mid-century, a majority of our people will be from such diverse backgrounds. To effectively reach a greater number of people from diverse backgrounds and involve them in the conservation movement, NWF will need to adopt a number of new approaches. These include: increasing exposure of under-resourced urban and rural children to wildlife and nature education through NWF reading and literacy programming and increasing wildlife-based community service participation by U.S. teenagers nationwide while targeting those from diverse racial and cul-



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USFWS

tural backgrounds. We will also provide urban and tribal teens and young adults in major metropolitan areas with focused leadership development training and opportunities. In addition we will play a key role in helping natural resource-based employers to diversify their future workforces. Support wildlife and nature education for all students regardless of their backgrounds.

### **5 Year Outcomes:**

- Ensure that wildlife and conservation-based community service is a regular part of the lives of one million under-resourced urban, rural and tribal teenage youth.
- Conduct a series of nationwide community service events and focused programs of wildlife and conservation awareness-building with educators.
- Expand NWF's existing high school leadership program that includes urban and tribal youth to 10 additional geographic areas and develop skills in 2,000 under-resourced youth annually.
- Develop and implement a program that will cause leading wildlife and natural resource employers to significantly increase the percentage of professional employees from diverse backgrounds to levels that reflect the make up of the general public.
- Promote and distribute educational programming through schoolyard habitats in urban and rural areas and tribal and military schools to reach two million students a year.
- Deliver NWF's literacy-building children's magazines *Ranger Rick*®, *Your Big Backyard*® and *Wild Animal Baby*® and associated curricula to one million school-aged, under-resourced students in urban and rural areas, and make the magazines and materials available in Spanish and other languages.

### **15 Year Outcomes:**

- Play a central role in the establishment of wildlife and conservation-based



DIGITAL VISION

community service as one of the top two activities engaged in by U.S. teenagers performing such service.

- Ensure that 10 million annual hours (worth \$200 million) of habitat restoration work are performed by youth from all backgrounds who will simultaneously be exposed to wildlife and natural resource activities and opportunities.
- Demonstrate the effectiveness of wildlife and natural resource-based leadership programs for youth, establishing youth conservation leadership training as a core activity of 1,000 urban and tribal high schools.
- Ensure that wildlife and natural resource agencies and resource-based companies across the United States have workforces with 30 percent representation of people from diverse backgrounds.
- Be a leader and provider of outdoor experiences and alternative forms of education for students in under-resourced communities such as poor urban neighborhoods and of programs that emphasize accessibility by special need students and young people.
- Ensure that wildlife and nature-related reading is a frequently employed literacy tool that reaches and advances the language arts and reading skills of one million under-resourced urban, rural and tribal youth from diverse backgrounds across the United States.

### **Goal 3: Create public understanding of global warming and generate support for confronting the problem in order to protect wildlife**

Public understanding of the connection between global warming and habitat and wildlife loss is very low in the United States and this needs to be addressed. We will make the direct connection between climate and wildlife a regular theme of U.S. weathercast television programming. We will also implement a nationwide program that encourages consumers and community leaders to connect energy use to the future health of wildlife and habitats and will play a central role in the global

exchange of information and educational tools on the connections between global warming and wildlife.

### 5 Year Outcomes:

- Implement a “weather and wildlife” reporting program in 20 major media markets, regularly reaching 30 million viewers, that focuses on how weather conditions, including those that result from global warming, are important to wildlife and their habitats.
- Develop and execute an effective online energy conservation education program to one million consumers and community leaders that connects patterns of energy use to the health of wildlife and habitats.



- Provide energy conservation education to one million college and university students that emphasizes the relationship between global warming and wildlife loss.
- Develop and implement an online resource center that compiles and disseminates best practices in education about mitigation of global warming impacts on wildlife and habitats, and is used by one million educators, parents and students on an annual basis.

### 15 Year Outcomes:

- Make reporting on wildlife conditions a weekly, if not daily, feature of U.S. television weather forecasting in a majority of the 400 U.S. media markets, reaching 120 million people.
- Ensure that wildlife conservation is a major motivating factor for 10 million U.S. residents to conserve energy.
- Ensure that 10 million U.S. community leaders and college and university students are well-educated on the importance of controlling global warming pollution and are educated on how to reduce it in their respective communities.
- Play a leadership role in the international exchange of information and best practices on global warming education and the connection to wildlife conservation.

## Goal 4: Achieve broad public understanding of and support for habitat restoration

Educating the public on the effects of habitat fragmentation will be central to protecting wildlife in the future. We will do this by increasing the amount of public funds available to support wildlife and conservation education and related outdoor activities through state and federal wildlife and natural resource programming. We will also build on an NWF strength by building robust urban wildlife gardening/habitat net-



JEFF VANUGA, USDA NRES

works in each of the major metropolitan areas of the United States and by developing an effective and popular citizen naturalist program that encourages 100,000 U.S. citizens to accurately and regularly monitor the condition of wildlife and habitats.

### **5 Year Outcomes:**

- Secure \$500 million to support conservation education, citizen wildlife observation and skill development, wildlife education and accessibility to young people.
- Create active wildlife gardening networks in 15 major U.S. cities consisting of thousands of master gardeners, master naturalists, NWF Habitat Stewards and members of garden clubs with initial emphasis on metro areas in migratory bird flyways.
- Conduct new nationwide and regional outdoor science observation events that create a deeper understanding of natural processes and the need for conservation and that involve 100,000 people in wildlife monitoring.

### **15 Year Outcomes:**

- Secure \$5 billion in increased public funding for wildlife and conservation education.
- Create wildlife gardening networks in 75 major urban areas along U.S. migratory flyways and develop more than one million wildlife gardens encompassing two million acres.
- Make rigorous wildlife observation a core activity of NWF members, affiliates and partner organizations.

## 5. RISING TO THE CHALLENGE

With wildlife facing critical threats such as global warming, habitat fragmentation and society's growing disconnect from nature, NWF confronts unprecedented social, economic and biological challenges to ensuring viable fish and wildlife populations and natural habitats. To meet these challenges, we must partner effectively with hundreds of other organizations, agencies and communities. This means that NWF must be programmatically robust, focused on achieving significant outcomes, fiscally sound, strongly networked, well-managed, and nimble.

### Goal 1: Govern effectively, strengthen grassroots leadership and share responsibility



DIGITAL VISION; TOP PHOTO, JOHN AND KAREN HOLLINGSWORTH (USFWS)

NWF will integrate board, staff, affiliate, volunteer and other contributor efforts by creating a culture of shared responsibility. For such a culture to be effective, all participants need to have clear roles and responsibilities to achieve a common purpose.

**Outcome:** Strengthen working relationships with our 47 state and territorial affiliates that are independent organizations devoted to wildlife conservation. Each affiliate sends delegates to the NWF annual meeting who play key roles in electing a majority of the organization's board and crafting our conservation policies. Due to the central role that affiliates play in both the governance and grassroots strength of NWF, we must create a stronger network among these partners.

**Outcome:** Increase the organizational capacity of NWF affiliates by pursuing joint projects that attract funding, recruit new and diverse constituents, engage and support energetic leaders and use innovative com-

munication tools to create a responsive network. In 15 years, our affiliates will be the most effective "big-tent" conservation organizations within their states and territories.

**Outcome:** Increase the organizational capacity of NWF affiliates to advocate for local, state and regional solutions to address global warming.

**Outcome:** Maximize use of the expertise of the members of NWF's board of directors. The board has two primary functions: governance and support. The board as a whole governs by setting strategic priorities through approving the organization's strategic plan and allocating resources by approving its annual budget each August. Board members, both as individual leaders, and as participants on committees, support NWF by volunteering, raising money, networking with affiliates and other partners and providing expertise.

Although all sectors of NWF participated in the strategic planning process it is ultimately the board that will adopt the final plan. Staff and volunteer efforts to develop the plan have responded to higher-level direction from the board—focusing on "building a movement" rather than simply building the institution, for example. The board as a whole, therefore, fulfills its governance role



by charting NWF's overall future direction. Actual implementation of the plan will require contributions of time, money and contacts from individual board members acting as volunteers in support of staff-led initiatives.

When it comes to fundraising, the board governs by ensuring that there is an integrated business plan for bringing in revenue. In their support role, individual board members are asked to identify and cultivate donors through personal visits and events, assist in spreading the word about the good work of NWF and donate to NWF to the best of their financial ability.

**Outcome:** Invest in volunteer networks such as the President's Advisory Council, Corporate Circle, Campus Advisory Council, Tribal Advisory Council and Habitat Stewards that build relationships with volunteers who will support NWF's work. Unlike board members, these entities will not govern the organization, but will provide critical support through their expertise, networks and volunteer time.

**Outcome:** Maximize use of the talents of NWF staff members, who are embracing a culture of shared responsibility, shifting from operating in hierarchical structures to achieving success through team-based approaches. Teams that meet clear objectives lead to grassroots leaders working with NWF staff to achieve a common purpose. Building such teams requires:

- Staff leaders who work together and with partners to share responsibility for effectively implementing strategies, developing short-range plans and meeting fiscal and programmatic goals;
- Staff and affiliates that are models of professionalism, teamwork and effectiveness in their respective fields, including: science, policy, networking, public education and communication, publishing, development, membership, marketing, finance and administration;
- Staff, affiliates, volunteers and board members that represent the full cultural, ethnic and racial diversity of the United States and who provide NWF with perspective on how to be effective in a nation and world of increasing diversity.

## Goal 2: Focus on achieving significant success

NWF is committing to a long range plan that sets outcomes based on the latest scientific, social and political research.

**Outcome:** Demonstrate significant progress toward achieving its goals by measuring tangible effects on foundation species and habitats.

**Outcome:** Show measurable progress toward instilling a conservation ethic in the majority of U.S. citizens by measuring public awareness, attitudes, and commitment to change.

**Outcome:** Show measurable progress toward establishing a diverse national network of influential leaders.

### Goal 3: Strengthen our capacity to create and link networks of people

NWF will create a national Center for Grassroots Support that will provide influential affiliate and other grassroots leaders with the skills, tools and social connections necessary for stronger communities and groups. The Center will link influential affiliate leaders with communities and other grassroots groups to create joint strategies, share successes and learn from each other. The Center will also provide innovative communication tools to better connect leaders so they can quickly mobilize and share information and resources. To meet this goal, NWF will:

**Outcome:** Increase its skill and technological capacities to collaborate with affiliate and other partners through alliances, joint projects, educational programming, joint fundraising and resource-sharing;

**Outcome:** Build more and deeper ties with its supporters by investing in cutting edge networking skills and technologies to quickly mobilize large numbers of activists as well as build a sense of community. NWF will partner with others to strengthen grassroots networks, provide training and resources and build a diverse national network of leaders who share our values and goals;

**Outcome:** Create alliances containing a broad diversity of members and sustain vibrant networks with both the clout and the reach to move the national leadership's attention to and action toward major threats faced by fish and wildlife.

### Goal 4: Enhance the passion of our supporters for our work

NWF will enhance our supporters' commitment and passion for the organization's work. Currently, NWF has more than four million supporters with whom we have interacted in a personal and integrated way for many years. Over the past year, a number of new efforts have been launched that will align resources and strategies to create even stronger relationships with our supporters. To continue this work, NWF will:

**Outcome:** Build a larger, more diverse and more dependable base of donors and grantors through stronger donor relationships, communications, education and clear identification of our needs and opportunities;

**Outcome:** Communicate complex wildlife conservation issues in ways that inspire people through compelling stories, images, effective messages and diverse messengers;

**Outcome:** Consolidate resources into a high functioning cross-organizational Action Team to seamlessly engage our members, partners and new constituencies to take personal actions in support of NWF's programs;

**Outcome:** Reinvigorate the National Wildlife Action (NWA) to create and employ strategies that expand NWF's ability to be a powerful voice for wildlife at all levels of society. NWA will hold elected officials accountable, elevating wildlife, global warming and conservation education as priorities for decision-makers;

**Outcome:** Integrate NWF's work in membership, publishing and product sales to strengthen the organization's financial base by engaging our members, subscribers and purchasers in NWF's mission;

**Outcome:** Build upon and strengthen NWF's brand to increase public awareness of and trust in the organization as an effective leader that inspires citizens to conserve wildlife for future generations.





## 6. BIOLOGICAL BASIS FOR SUCCESS

NWFF and its partners will conserve and restore America’s wildlife using scientifically-based approaches that focus on icon species, foundation species, threatened and endangered species and species directly stressed by global warming. NWFF will link the health of these species to the status of their ecologically significant habitats. It will track progress directly by assessing the ecological status of the species and their significant habitats.

### Icon Species:

NWFF has long used icon species, such as gray wolves, grizzly bears, bald eagles and bison, to inspire the American public to take action. NWFF will continue to engage and inspire the public by adopting certain iconic species that symbolize the threats to wildlife and habitats. Many of these species are top-order carnivores and therefore are susceptible to disturbances to their ecosystems. They also can be victims of human intolerance. Other iconic species are game animals that are highly valued by hunters and anglers. NWFF will choose its icon species based upon the needs and outcomes of its programs to motivate and inspire a diverse network of conservationists, as well as the link between the health of the icon’s ecosystem and its population status.

- *Example: Pronghorn range only in North America; they are the sole survivors of the diverse fauna that evolved in the North American steppes during the Pleistocene. They also represent a classic example of the success of our historic conservation efforts, recovering from a low of a few hundred thousand animals in the late 19th century to about a million by the 1980s. Hunters eagerly participated in this recovery effort and the animals remain a highly sought-after game species. Productive populations of these animals rely on extensive stands of big sagebrush to survive harsh winters. Now, however, pronghorn are undergoing a dramatic population decline, with 40 percent of the species’ continental population being lost since 1984. This decline mirrors the decline of the sagebrush steppe, which pronghorn depend on to survive harsh winters. As we work to conserve the vitality and integrity of the sagebrush biome, we will use pronghorn and other associated species as an icon of that biome.*

### Foundation Species:

For our purposes, a “foundation species” is one that plays a critical role in maintaining the integrity of its corresponding ecosystem. A foundation species frequently is not charismatic, but a host of other species in an ecosystem may depend upon it. NWFF will identify and track foundation species to measure progress toward protecting and restoring ecosystems.

- *Example: Krill serve as a foundation to polar ocean ecosystems. They are essential food for penguins, seals and whales, but as sea ice declines, so does krill. There has been*



CORBIS; TOP: JEFF VANUGA



*a 50 percent decline in southern krill stock since 1926 and a corresponding decline of 50 percent in emperor penguins and a 70 percent decline in Adélie penguins in the last 30 years. While krill serve as the foundation of these ecosystems, they are unlikely to inspire the public to action.*

### Threatened and Endangered Species:

Threatened and Endangered species (T&E) are listed under the auspices of the federal Endangered Species Act. Many of these species are iconic and a few are foundation species. NWF will develop a list of ten T&E species whose habitat requirements and iconic status overlap the ecologically significant habitats prioritized by the organization. In some cases, these T&E species will be the iconic species used by NWF to inspire the public to take conservation action on behalf of an ecologically significant habitat. The progress T&E species make towards recovery create clear mileposts for assessing NWF's own progress in achieving its strategic goals.

- *Example: Currently, most T&E species have very narrow niches for food, habitat, cover or water, such as the recently rediscovered ivory-billed woodpecker, which inhabits swampy bottomland hardwood forests in the southeastern United States. These old forests provide an ample supply of dead and dying trees where the ivory-bill can find beetle larvae. However, dams, diversions, levees and irrigation projects have diverted water from these swampy forests and acted synergistically with indiscriminate logging to devastate habitat. Today, these forests have shrunk to less than one-fifth of their original size. NWF can use the recovery of such an iconic species and its habitat to judge its own progress in conserving and restoring bottomland hardwood forests.*



ARTHUR A. ALLEN, CORNELL LAB OF ORNITHOLOGY; ABOVE, CORBIS

## Species Directly Stressed by Climate Change:

Ultimately, all wildlife will be impacted by global warming. Some species already are being seriously impacted and thus need NWF's help immediately. Most of these animals have a very narrow tolerance for temperatures or a very narrow foraging niche. They depend on stable, predictable environments and have low reproductive rates. As temperatures climb and habitats change rapidly, food resources decline or become unavailable; individual health also declines and reproductive performance may be compromised. NWF will highlight these species to directly link global warming to real impacts on the ground, and in doing so inspire the public to participate in reducing greenhouse gases. As species stressed by climate change disappear or prosper, NWF can assess the impacts of global warming on wildlife.

- *Example: Polar bears are inherently linked to the Arctic regions of the planet, not only biologically but also in the public's mind. Polar bears depend on predictable, extensive sea ice during the winter to hunt their primary prey, ringed seals. The seals also depend on sea ice to breed and whelp their pups; indeed, they cannot raise pups when little or no sea ice is present. Polar bears are directly affected by declines in the ringed seal population. A long-term study in western Hudson Bay has documented that the area's polar bears are 15 percent thinner than they were a few decades ago. Fewer cubs are being born and even fewer are surviving to adolescence, further challenging the population.*



## Ecologically Significant Habitats:

NWF and key scientists will develop a list of ecologically significant habitats that track the success of our efforts and maintain the strength of our connections with our partners. Key wildlife habitat areas, as well as regionally distinct ecological biomes, will be evaluated and listed as priority habitats. Migration corridors, roosting and resting areas, nesting and nursery areas, and wintering and foraging areas will all be evaluated as we develop our priorities. Ecologically significant habitats, as outlined above, will be evaluated for their status and their ability to inspire action from the American public. These significant habitat areas will be inextricably linked to NWF's list of icon, foundation, threatened and endangered, and climate-stressed species.

- *Example: Providing a simple listing of priority habitat areas is problematic. Some will view the list as validation that certain habitats are already included; others will view the list as exclusionary. Neither view is correct—this list simply serves as an example to stimulate thinking and to provide additional clarity. Examples include estuarine systems, freshwater rivers, lakes, streams and wetlands, coniferous and deciduous forests, sagebrush steppe, prairie grasslands, deserts, taiga and tundra ecosystems.*



## 7. CONCLUSION

The National Wildlife Federation has embarked on a new path. This path involves rekindling both passion for and commitment to wildlife restoration by focusing on the immediate threats to wildlife from global warming, investing in habitat protection and restoration and reestablishing the lost connection between our society and nature.

NWF will rededicate itself to giving voice to the wildlife conservation values this nation holds dear. At the same time, we realize we cannot expect citizens to make unrealistic choices between livelihoods and conservation, and that people need and have a right to earn income from their land. We know that although laws and regulations are important and necessary tools, they may not be the best tool in many situations; financial and market incentives can also effectively promote habitat restoration. While government has a primary obligation to backstop restoration efforts with research, funding and enforcement, we also realize that long-term success in wildlife conservation requires the involvement of many people and organizations at different levels, especially within local communities. Finally, we know that apparent victories can be short-lived if they do not receive widespread support.

All across the United States, natural systems are unraveling at an alarming rate. Citizens who live close to the land often intuitively see and feel these changes. Many tribal communities, for example, are eager to restore native fish and wildlife but lack public support and funding to do so. Hunters and fishermen, meanwhile, must travel farther and farther to find game or are denied access by new homeowners who unknowingly contribute to habitat fragmentation. Without a focused effort to protect the best sanctuaries for wildlife and to provide access to these places, especially in a time when wildlife is uniquely stressed by the effects of global warming, the nation will steadily become disconnected from and lose its unique wildlife heritage.

NWF's new path demands not only refocusing what we work on, but, just as importantly, how we work so that the conservation movement will remain strong and relevant in the future. As the country's mainstream national conservation organization and as an institution born of a multi-faceted appreciation for wildlife, NWF is dedicated to rebuilding the conservation movement. We believe that the founding democratic principles of our country, including the idea that we all share responsibility for the nation's well-being, should lie at the heart of wildlife conservation. Fish and wildlife are public resources held in trust by all U.S. citizens. NWF will forge partnerships that transcend traditional alignments of expertise, geography or politics. We will be better listeners so we can become better leaders.

The hard work of implementing this strategic plan will require extensive consultation, strategically focused work plans and campaigns, and continual consultation with the scientific community to measure our success. Ultimately, we believe our new path will lead not only to genuine conservation gains and improved capacity for NWF as a preeminent voice for wildlife but to the strengthening of the national conservation movement.

We are eager to begin this journey.



## 8. FUNDING FOR SUCCESS

NATIONAL PARK SERVICE

To achieve the goals set out in this plan, NWF will continue doing what it does best, reaching out to the grassroots to build a strong movement. We will make significant new investments to educate, organize and mobilize Americans. But we will also reach out to a wider base, working with our affiliates and partners to increase our capacity and extend our influence. The plan provides a framework for creating broad, far-sighted programs that will require multi-year funding to achieve high-impact results.

During the first years of the mobilization effort, NWF will achieve successful outcomes by reallocating baseline funding as needed and by securing \$16.1 million in philanthropic support.

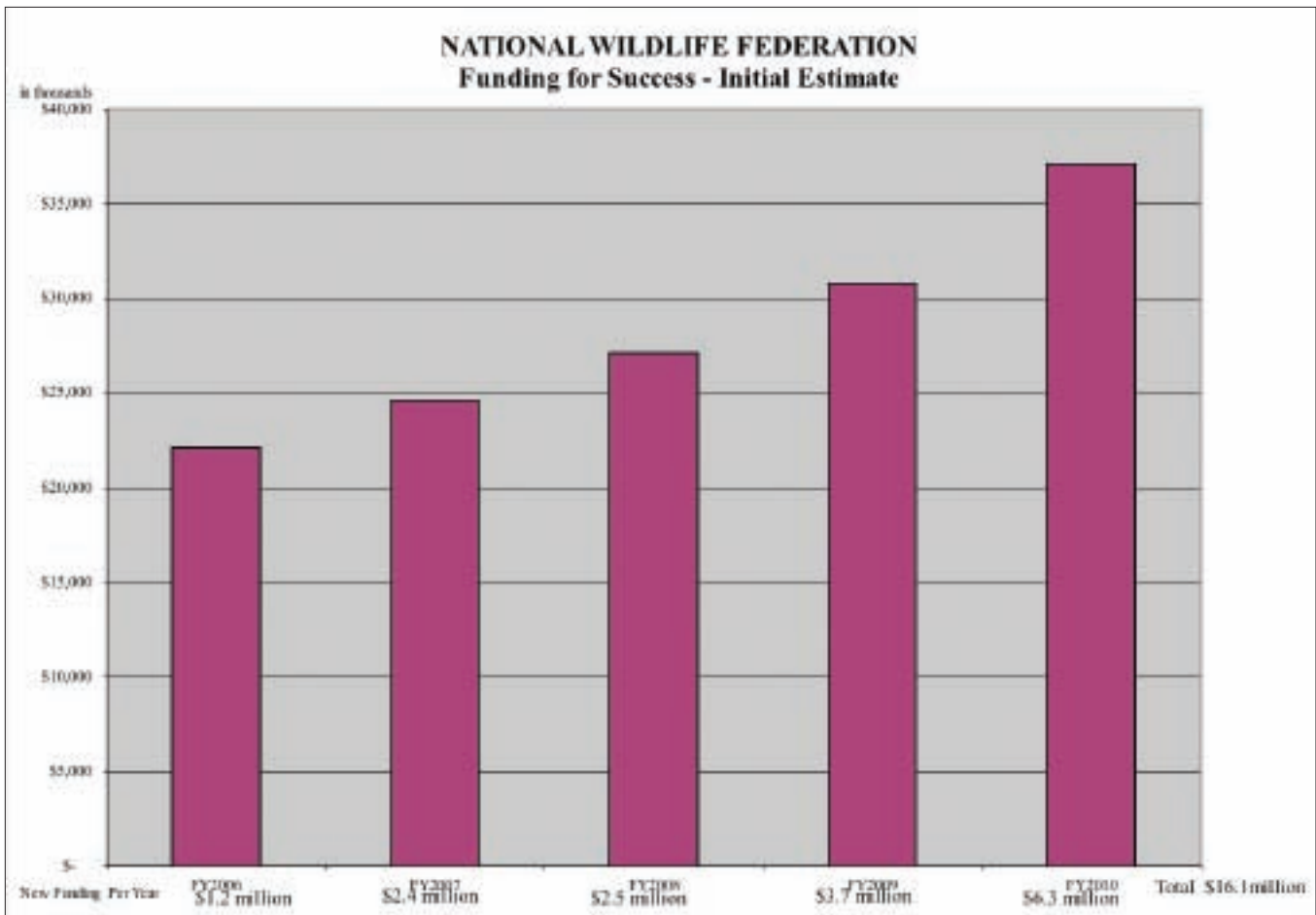




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## 9. FOR MORE INFORMATION

### Global Warming Action:

Flannery, Tim, (2006). “The weather makers.” *Atlantic Monthly Press*.

Kohlbert, Elizabeth, (2006). “Field notes from a catastrophe.”  
New York: Bloomsbury.

Motavalli, Jim, ed., (2004). “Feeling the Heat: Dispatches From the Front Lines of Climate Change.” New York: Routledge.

Schneider, Steven & Root, Terry, eds., (2002). “Wildlife Responses to Climate Change: North American Case Studies.” Washington, D.C.: Island Press.

Speth, James Gustave, (2004). “Red Sky in Morning: America and the Crisis of the Global Environment.” R.R. Donnelly and Sons.

### Biological Basis for Success:

“Millennium Ecosystem Assessment Report.” (March 2005).  
[www.millenniumassessment.org](http://www.millenniumassessment.org).

Stein, B.A., Kutner, L.S., Adams, J.S., eds., (2000). “Precious Heritage, The Status of Biodiversity in the United States.” The Nature Conservancy & Association for Biodiversity Information. New York: Oxford University Press.  
[www.natureserve.org](http://www.natureserve.org).

The H. John Heinz, III, Center for Science, Economics and the Environment, (2002). “The State of The Nation’s Ecosystems: Measuring the Lands, Waters, and Living Resources of the United States.” Cambridge, U.K.: Cambridge University Press. <http://www.heinzctr.org/ecosystems/report.html>.

2005 Environmental Sustainability Index: Yale University.

### Connecting People to Nature:

Chawla, L., (1998). “Significant Life Experiences Revisited: A Review of Research on Sources of Environmental Sensitivity.” *Journal of Environmental Education* 29(3): 11-21.

Coyle, Kevin J., (2005). “Environmental Literacy in America.” National Environmental Education & Training Foundation, Washington, D.C.

Elder, J.L., (2003). “A Field Guide to Environmental Literacy: Making Strategic Investments in Environmental Education.” Beverly, Massachusetts: Environmental Education Coalition.

Keller, E. and Berry J., (2004). “The Influentials.” New York: The Free Press.

Louv, Richard, (2005). “The Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder.” New York: Algonquin Books of Chapel Hill.

Orr, David W., (2004). “Earth in Mind: Our Education, Environment and the Human Prospect.” Island Press

## Grassroots Movement:

Collins, Jim, (2001). “Good to Great.” HarperCollins Publishers.

Dobson, Charles, (2001). “Social Movements, A Summary of What Works.” [www.vcn.bc.ca](http://www.vcn.bc.ca).

Rosenblatt, Gideon, (2004). “Movement as Network.” ONE/Northwest Foundation [www.creativecommons.org](http://www.creativecommons.org).

Krebs, Valdes and June Holley, (2002). “Building Sustainable Networks Through Network Building.” [www.orgnet.com](http://www.orgnet.com).

Putnam, Robert, (2000). “Bowling Alone.” Simon and Schuster.

Schullery, Paul, (2005). “Should Anglers Re-invent Themselves?” *Fly Fisherman Magazine*.



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NWF's mission is  
to **INSPIRE** Americans  
to **PROTECT**  
**WILDLIFE** for our  
**CHILDREN'S**  
**FUTURE**

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