



THE GARDEN CLUB OF AMERICA

POSITION PAPER

The Garden Club of America supports independent, academic, peer-reviewed scientific research as the basis for formulation of responsible public policy and legislation, as well as appropriate funding to ensure quality results

GCA SUPPORTS CLEAN AIR

Clean air is essential for healthy plants, animals and people. The Garden Club of America supported the Clean Air Act of 1970. Air pollution continues to be a problem nationwide, and some power plants, refineries and manufacturing facilities continue to violate federal emission standards. In order to improve air quality and to reduce the risks of climate change, GCA supports the following goals:

- Reduction of three pollutants – **Sulfur dioxide (SO₂)**, **Nitrogen oxide (NO_x)**, and **Mercury (Hg)** – that are affecting the quality of the air and adversely affecting the habitat of all living things: plants, animals and humans.
- Reduction in the amount of **Carbon dioxide (CO₂)**, **Methane (CH₄)** and other greenhouse gases released to the atmosphere, as the changing climate may pose the greatest risk to biodiversity in the coming century.
- Reduction of these chemicals through an integrated strategy of regulated emission caps, improved energy efficiency and greater use of renewable energy sources.
- Enforcement of New Source Review, a key provision of the 1977 Amendment to the Clean Air Act, which requires old power plants to modernize their pollution controls whenever they make major repairs or renovations.

GLOSSARY OF TERMS

Sulfur dioxide (SO₂) - Sulfur in coal becomes sulfur dioxide (SO₂), when coal is burned. SO₂ acidifies lakes, streams and soil, diminishes crop yields, deteriorates buildings, and creates haze which pollutes national parks and urban areas.

Nitrogen oxide (NO_x) - Nitrogen oxide is produced when coal is burned. Winds carry these acid pollutants far from their sources. Acid pollutants fall to earth in wet form (acid rain, snow, mist or fog), or dry form (acid gases or dust). Nitrogen oxides and hydrocarbons combine in the atmosphere to form ground level ozone, the major constituent of smog. Human exposure can produce shortness of breath, asthma, and over time, permanent lung damage. Smog can reduce crop yields and damage plants, including forests, food crops and ornamentals.

Mercury (Hg) - Mercury is a nerve poison that builds to hazardous levels when released into the environment. The chief source of mercury is coal-fired power plants. Mercury deposition into water bodies can contaminate fish, especially those fish which are higher on the food chain. Forty-one states have issued advisories warning against the consumption of a range of these freshwater and/or marine fish.

Carbon dioxide (CO₂) - Carbon dioxide is the gas most responsible for climate change. This heat-trapping gas is released by burning of fossil fuel (coal, oil and natural gas), flaring of natural gas, changes in land use (deforestation, burning and clearing land for agricultural purposes), and manufacturing of cement. These activities account for half of the warming potential caused by human activity.

Methane (CH₄) – Methane is colorless, odorless, flammable gas that is the main component of natural gas.

The purpose of The Garden Club of America is to stimulate the knowledge and love of gardening, to share the advantages of association by means of educational meetings, conferences, correspondence and publications, and to restore, improve and protect the quality of the environment through educational programs and action in the fields of conservation and civic improvement.



THE GARDEN CLUB OF AMERICA POSITION PAPER

The Garden Club of America supports independent, academic, peer-reviewed scientific research as the basis for formulation of responsible public policy and legislation, as well as appropriate funding to ensure quality results.

GCA SUPPORTS CLEAN WATER

The Garden Club of America recognizes that all life is dependent upon clean, uncontaminated water. We support the original objective of the 1972 Clean Water Act to “restore and maintain the chemical, physical and biological integrity of the nation’s waters.” We recognize that a watershed-based approach is an important way to achieve this goal.

Despite outstanding progress since 1972, more than one third of the waters in the United States still do not meet minimum standards. Contamination from industry, agriculture, resource extractions, municipalities and households is growing faster than our institutional ability to set and enforce standards. The proliferation of excess nutrients and toxic substances pollutes our rivers, lakes, and coastal waters. Critical wetlands loss and urban and agricultural run-off have increased the pollution and sediment load in our waters. Water quantity is also a problem, exacerbated by climate change. In many parts of the country, water supply is endangered by droughts, over drafting of ground water supplies, and diversions of scarce surface water for agricultural use and for continuing commercial and residential development.

In order to protect our water resources, promote water conservation and reuse, and prevent pollution, The Garden Club of America supports the following goals:

Reduction of water pollution by:

- Ensuring a vital clean water act including broad jurisdictional coverage.
- Reducing point source pollution from industry and sewage treatment plants.
- Reducing nonpoint source pollution from urban and agricultural run-off.
- Reducing airborne pollutants which degrade water quality.
- Enforcing strict water quality standards and pollution permits.
- Improving funding for clean water programs.

Protection of ecosystems by:

- Restoring and preserving the nation's surface water.
- Protecting groundwater.
- Preserving and protecting wetlands, including strict standards for any method of wetland alteration.
- Providing incentives for the creation and preservation of riparian buffer areas.
- Developing national and global policies to protect coastal waters and the world's oceans.
- Ensuring sufficient instream flows and natural flow patterns to sustain the integrity of river systems.

The nationwide availability of safe drinking water and public education concerning its content.

The protection of fresh water resources to ensure that an adequate supply of fresh water is available both now and in the future.

The purpose of The Garden Club of America is to stimulate the knowledge and love of gardening, to share the advantages of association by means of educational meetings, conferences, correspondence and publications, and to restore, improve and protect the quality of the environment through educational programs and action in the fields of conservation and civic improvement.

GCA SUPPORTS CLEAN WATER

GLOSSARY OF TERMS

Airborne pollutants - Water contaminants which initially are emissions into the air, but which through rainfall or condensation are transferred to water bodies.

Ecosystem - A community of organisms together with their environment, functioning as a unit.

Excess nutrients - Nitrogen and phosphorus compounds found in higher than normal concentrations in water, usually associated with contamination by fertilizers, animal wastes and detergents.

Groundwater - Water sources that are below ground level, such as aquifers.

Nonpoint source pollution - Contamination of water bodies that is not generated by a single source, but rather is carried by rainwater or snowmelt from diverse sources. Examples include debris and toxic chemicals carried from streets; silt carried from construction sites; fertilizers, pesticides, herbicides and animal wastes carried from agricultural operations; air pollution deposited in water bodies by rain; chemicals washed off outdoor industrial sites; and silviculture.

Point source pollution - Contamination of water bodies that can be traced to a single source, such as sewage treatment plant or industrial operation.

Riparian buffer zones - Conservation areas along the banks of natural watercourses which protect the water from the activity on the adjacent land. Conservation strips are vegetated and designed to intercept sediment and pollutants before they reach the water.

Surface water - Water sources that are above ground, such as rivers, streams, lakes and reservoirs.

Toxic substances - Chemical or other substances capable of causing injury or death to living organisms.

Watershed - The entire region draining into a river, river system or other body of water.

Watershed-based approach - The management of water resources, based on regional geographic areas, recognizing all the interconnections of those resources. A watershed approach provides coordinated implementation of programs, working with state, tribal and local governments, private landowners and businesses. Watershed programs might focus on water supply, water quality, water conservation, flood protection, and protection of fish and wildlife resources.

Wetlands - Land areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands have three characteristics: 1) hydric soil (soil that is chemically changed by water), 2) hydrology (patterns of water flow), and 3) hydrophytic vegetation (plant species adapted to wet conditions).

Wetlands alteration - Any physical change to a wetland which would render it no longer functional as a wetland. These changes include not only deposition of fill into a wetland (covered by the Clean Water Act) but also excavation, drainage, clearing, flooding or constriction of water supply to the area.

Resource Extraction - The use of mining, drilling, and natural gas fracking.



The Garden Club of America Position Paper

The Garden Club of America supports independent, academic, peer-reviewed scientific research as the basis for formulation of responsible public policy and legislation, as well as appropriate funding to ensure quality results.

GCA SUPPORTS STRATEGIES TO ADDRESS CLIMATE CHANGE

The Garden Club of America recognizes that the consequences of global climate change are affecting the natural world, our economies, national security, and human health. Because individual and collective action can modify the course of climate change, GCA is committed to educating members and communities about its causes and about constructive responses to them. GCA is particularly concerned about the influence of climate change on biodiversity. Native vegetation is the matrix that sustains plant biodiversity and supports wildlife and ecosystem services. Without plants, life on earth is not possible. Therefore, GCA is committed to encouraging action that preserves biodiversity.

Therefore, The Garden Club of America supports:

FUNDING

- To recognize individual species at risk, as well as the value of these species and their habitats.
- To develop and implement proactive strategies to assure at-risk species are protected and to preserve options for future restoration.
- To support implementation of strategies to protect biodiversity.
- To identify and address both the disruptions of co-evolved relationships (such as those between plants and pollinators) and the increased incidence of disease and invasive species.

LEGISLATION and PRIVATE INITIATIVES

- Federal, state and local legislation and regulations, as well as individual initiatives to reduce greenhouse gas emissions.
- Individual, corporate, and community initiatives to develop green infrastructure.
- Initiatives to support sustainable forest and wilderness areas, which sequester carbon, help ensure clean air, and protect watersheds.
- Initiatives to protect oceans, which produce more than two-thirds of the world's supply of oxygen and more than half its biological production.

ADAPTATION

- Adaptation strategies for human, animal, and plant communities.
- Revegetation and reforestation of disturbed and degraded areas, including green buffers near waterways and development of sufficient supplies of native plant materials to meet this need.
- Proactive water management initiatives to conserve water and maintain water quality in response to the expected challenges of climate change to riparian systems and instream flow.
- Promotion of more localized systems of food production and consumption.

EDUCATION

- Public education about climate change, including the changing conditions for gardens, sustainable landscape design and gardening practices, and the reduction of energy-intensive products and maintenance practices.
- Awareness of implications of changed hardiness zones for agriculture and horticulture, including changes in phenology (the date that leaves and flowers emerge), migratory patterns, productivity, and crop yield.
- Exploration of social, economic and environmental opportunities that will become available through research and development of new technologies.

The purpose of The Garden Club of America is to stimulate the knowledge and love of gardening, to share the advantages of association by means of educational meetings, conferences, correspondence and publications, and to restore, improve and protect the quality of the environment through educational programs and action in the fields of conservation and civic improvement.



THE GARDEN CLUB OF AMERICA POSITION PAPER

The Garden Club of America supports independent, academic, peer-reviewed scientific research as the basis for formulation of responsible public policy and legislation, as well as appropriate funding to ensure quality results.

GCA SUPPORTS OUR NATIONAL PARK SYSTEM

The Garden Club of America believes that our country's national parks are irreplaceable treasures whose value is incalculable. As important and meaningful symbols of our American heritage and culture, our parks, must by law, be managed by the federal government under a mandate of conservation stewardship. The National Park Service is directed by the Organic Act of 1916 and the Redwoods Act of 1978 to ensure that our natural and cultural park resources and values will continue to exist in a condition that allows the American people the opportunity to enjoy them forever.

The National Park System is directed "to conserve the scenery and natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for future generations." Therefore, our National Parks deserve the highest possible level of protection. While recreation and inspiration are important components of a national park experience, the NPS Management Policy Manual makes the conservation of resources its first priority. The Garden Club of America appreciates the intent of Congress in establishing the National Park System and respectfully reminds Congress of its responsibility for fully funding the operations of the entire park system.

Therefore, The Garden Club of America supports:

Strengthening Public Policy to:

- Place a priority on conservation, education, and preservation.
- Foster biodiversity and the protection of native plant communities and whole ecosystems within and around the parks.
- Include adequate funding for botanists to inventory plant communities.
- Protect national parks from exploitation, pollution, and the effects of climate change.
- Encourage ecologically compatible use of lands surrounding parks and collaboration with neighboring communities.
- Establish corridors to enable migration of wild life adapting to climate change.
- Meet annual funding needs as well as make up for previous funding deficiencies and cumulative shortages.
- Provide sufficient federal personnel for NPS programs by assuring adequate funding of federal staff.
- Protect visibility and viewsheds in all parts of our national park system.
- Fully fund the Land and Water Conservation Fund and use the federal portion of that fund for its intended purpose, the purchase and restoration of public lands.

Managing National Parks to:

- Prevent, control and eradicate invasive plants.
- Make available the tools and training needed to maximize the effectiveness of park managers.
- Encourage professionalism in educators and public awareness of the need for resource protection.
- Control animal populations where necessary to restore balance to the park ecosystem.

The purpose of The Garden Club of America is to stimulate the knowledge and love of gardening, to share the advantages of association by means of educational meetings, conferences, correspondence and publications, and to restore, improve and protect the quality of the environment through educational programs and action in the fields of conservation and civic improvement.



THE GARDEN CLUB OF AMERICA

POSITION PAPER

The Garden Club of America supports independent, academic, peer-reviewed scientific research as the basis for formulation of responsible public policy and legislation, as well as appropriate funding to ensure quality results.

GCA SUPPORTS PRESERVATION OF NATIVE PLANTS

Native plants are defined as grasses, shrubs, vines, trees and herbaceous flora that exist in a given region through non-human introduction.

All life depends on the plant kingdom. The Garden Club of America, committed to preserving our worldwide system of richly varied habitats, places importance on protection of native plant biodiversity, the ecosystems that support them, and our own quality of life. Native plants are an inseparable part of the natural beauty we need to preserve in the American landscape. These native plants are an irreplaceable source for new medicinal and agricultural products, an increasingly important part of our economy.

To date, it is estimated that 200 native plant species in the United States have become extinct.* The many interrelated causes include habitat loss or degradation, an increase in populations of dominant invasive species, and over harvesting for commercial and private uses.

It is vital that existing laws and regulations protecting native plant species be strengthened and administered using the best scientific knowledge available. New concepts of stewardship need to be encouraged to prevent critical loss of plant diversity in the United States and around the world.

We view the 1973 Endangered Species Act as one of America's landmark pieces of conservation legislation. We encourage amendments to that Act, or reauthorization initiatives, that both strengthen measures to protect the nation's rare, threatened and endangered species, and create workable science-based recovery programs.

The Garden Club of America's commitments to protection of native plants include encouragement and support of:

- Legislation that will effectively protect our native plants, with emphasis on those that are at risk.
- Positive incentives (including funding) that would encourage private landowners to protect native plants.
- Cooperation with state and federal agencies as in the GCA project "Partners for Plants", assisting work with rare/threatened species, invasive species and medicinal plants.
- The St. Louis Voluntary Codes of Conduct's** measures to prevent and control ecosystem damage by exotic invasive plants.
- The Be PlantWise partnership of The Garden Club of America, National Parks system, Lady Bird Johnson Wildflower Center and Student Conservation Association. (www.beplantwise.org).
- Planting policies on public lands that use native plants, control invasive plants, and preserve or restore healthy ecosystems.
- Increased funding for plant protection and restoration on public lands, including adequate funding for more botanists.
- Implementation of federal field research projects to insure sustainability of wild-collected medicinal plants.
- Encouragement of domestic and international trade in nursery-propagated native plants, including imported bulb species, thus eliminating damaging traffic in wild-collected flora.
- Educational programs to increase awareness of the need to protect native plants.
- Public and private support of botanical education for a well-trained future workforce (like GCA fellowships).

* Center for Plant Conservation; www.centerforplantconservation.org **Missouri Botanical Garden: www.mobot.org/invasives

The purpose of The Garden Club of America is to stimulate the knowledge and love of gardening, to share the advantages of association by means of educational meetings, conferences, correspondence and publications, and to restore, improve and protect the quality of the environment through educational programs and action in the fields of conservation and civic improvement.



THE GARDEN CLUB OF AMERICA

POSITION PAPER

The Garden Club of America supports independent, academic, peer-reviewed scientific research as the basis for formulation of responsible public policy and legislation, as well as appropriate funding to ensure quality results

GCA SUPPORTS NATIONAL PUBLIC LANDS

America believes that public lands are held in trust for American citizens under a mandate of conservation stewardship, with the goal of preserving them for future generations. More than twenty percent of the land in the United States is under federal supervision.* Agencies charged with caring for these lands must set an example by using the best management practices available.

There is ever-increasing pressure for multiple uses of federal lands. The Garden Club of America urges the responsible agencies to make resource protection and preservation their first priority when establishing public land policy. The future sustainability of these public lands should be carefully considered prior to any natural resource development. Federal lands are a water source for more than 90 million US citizens.** Preservation of our vital water resources must be a priority of public land agencies.

Therefore, The Garden Club of America supports strengthening public policy to:

- Connect public lands and conservancies to create wildlife corridors for migration of plants and animals threatened by climate change.
- Provide adequate financial support for botanists to inventory, assess, and participate in the management of public lands.
- Place a priority on conservation and preservation, fostering biodiversity and the protection of native plant communities and endangered species.
- Prevent, control and eradicate invasive species
- Encourage collaborative efforts between government managers and private landowners to provide incentives for landowners to follow good conservation practices.
- Fully fund the Land and Water Conservation Fund of 1965 and use the federal portion of the fund for its intended purpose: the purchase and restoration of public lands.
- Require federal agencies to uphold the same environmental laws which apply to private landowners.
- Adequately fund the National Landscape Conservation System, the National Wildlife Refuge System, the National Marine Sanctuary System, the National Park Service and the National Arboretum.
- Include the right of citizens to comment in a timely fashion in an open forum on public lands issues.
- Base the evaluation of public lands management on the condition of the land.

** The two major agencies responsible for public lands are the Dept. of Interior (National Park Service, Fish and Wildlife Service, Bureau of Land Management) and the Dept. of Agriculture (Forest Service).*

***<http://www.DOI.gov/facts.html> (Website of the Department of Interior)*

The purpose of The Garden Club of America is to stimulate the knowledge and love of gardening, to share the advantages of association by means of educational meetings, conferences, correspondence and publications, and to restore, improve and protect the quality of the environment through educational programs and action in the fields of conservation and civic improvement.



THE GARDEN CLUB OF AMERICA

POSITION PAPER

The Garden Club of America supports independent, academic, peer-reviewed scientific research as the basis for formulation of responsible public policy and legislation, as well as appropriate funding to ensure quality results

GCA SUPPORTS ENVIRONMENTALLY RESPONSIBLE TRANSPORTATION LEGISLATION

The Garden Club of America has been dedicated to preserving and enhancing the scenic character of our communities and countryside since 1914 when the Committee on Beautifying Settlements and Highways was formed. “The restoration, improvement and protection of the environment through programs and action,” is included in the mission statement of GCA.

We view transportation and billboard legislation as significant determinants of the quality of our air, water, plants, and scenery.

Therefore, The Garden Club of America favors legislation that:

- Supports the Clean Air Act, including incentives for cleaner fuel and reductions in auto emissions.
- Assures public involvement and sound transportation planning.
- Provides funding for the support and further development of public transportation.
- Continues funding through the Congestion Mitigation and Air Quality (CMAQ) Improvement Program, which allows states and communities to improve air quality by reducing congestion and emissions.
- Encourages biodiversity in roadside plantings, particularly by the use of native plants and eradication of invasives and through the cooperation of federal, state and local highway departments.
- Values protection of historic, cultural and natural assets, and encourages acquisition of easements to protect scenic and historic sites.
- Encourages creation and maintenance of suitable scenic byways.
- Emphasizes the protection of the natural landscape rather than billboard visibility.
- Addresses the visual, safety, and environmental hazards of electronic billboards.
- Encourages the conversion of abandoned railroad corridors to pedestrian and bicycle trails where appropriate.
- Preserves the National Environmental Policy Act (NEPA) process involving federal highway projects.

The purpose of The Garden Club of America is to stimulate the knowledge and love of gardening, to share the advantages of association by means of educational meetings, conferences, correspondence and publications, and to restore, improve and protect the quality of the environment through educational programs and action in the fields of conservation and civic improvement.