



Green Infrastructure Collaborative

Statement of Support October 08, 2014

Green infrastructure uses vegetation, soils, and natural processes to manage water and create healthier urban environments. The scale of green infrastructure ranges from urban installations to large tracts of undeveloped natural lands and includes rain gardens, green roofs, urban trees, permeable pavements, rainwater harvesting, wetlands, protected riparian areas, and forests. Interconnected networks of green infrastructure allow rainwater to be absorbed and cleansed by soil and vegetation; to flow back into groundwater or surface water resources; or to be harvested and used as a water resource.

Significant advancements in green infrastructure have occurred in recent years. Communities across the country have greatly expanded the use of green infrastructure practices, most notably to address combined sewer overflows, reduce stormwater pollution in municipal separate storm sewer systems (MS4s), and prevent localized flooding. Green infrastructure continues to emerge as an approach to complement and enhance gray infrastructure and provide multi-benefit solutions that create resilient and sustainable communities.

PURPOSE

The purpose of this Statement of Support is to set a path forward for broadened national engagement in green infrastructure through a platform called the *Green Infrastructure Collaborative* (hereinafter referred to as “the Collaborative”). Operating as a networked-based learning alliance, the Collaborative will advance efforts to build capacity for green infrastructure implementation by providing a platform for national stakeholders to:

1. Leverage joint efforts to promote the multiple community benefits of using green infrastructure,
2. Share and build knowledge around emerging green infrastructure technologies and policy issues, and
3. Facilitate shared inquiry into the best ways to encourage adoption of green infrastructure technologies.

By joining the Collaborative, the signatory organizations commit to using this network to advance the adoption of green infrastructure as a means of supporting water quality and community development goals. These collective efforts will highlight the broad community benefits of green infrastructure including improved air quality, reduced energy use, mitigated climate change effects, and enhanced economic and social impacts. The Collaborative is intended to facilitate cooperation, coordination, and effective communication among the signatory organizations in a way that will encourage widespread adoption of green infrastructure where appropriate.

In addition to working cooperatively to advance green infrastructure, each of the organizations joining the Collaborative has additionally committed to undertake individual activities that support green infrastructure implementation.

COMMITMENTS

American Rivers

American Rivers is a conservation organization centered on the protection and restoration of America's rivers and streams. It commits to:

- Advocate for policies and practices that manage and reduce stormwater and support the use of green infrastructure.
- Develop tools that help communities develop green infrastructure plans and goals, and choose green infrastructure solutions that work for them.
- Act as a liaison between EPA and watershed and river groups interested in using green infrastructure to protect their local rivers.

American Society of Civil Engineers

The American Society of Civil Engineers (ASCE) has adopted a number of policies that promote the sustainable use of natural resources and encourages civil engineers to contemplate green infrastructure opportunities throughout project design. ASCE will work with appropriate officials to effectively implement green infrastructure programs. ASCE will communicate with its 145,000 civil engineering members and our Board of Directors on the progress and importance of the Green Infrastructure Collaborative through executive updates, ASCE's website, blogs, social media and our weekly newsletter This Week in Washington.

ASCE, its committees and technical institutes are fully committed to the principles of sustainable development (ASCE Policy Statement 418), urging civil engineers to serve as agents of change "through the information we provide, the decisions we make and those we influence." Informing, promoting, integrating, and implementing sustainable practices are a part of the ASCE culture across the spectrum of its civil engineering disciplines. ASCE's Environmental and Water Resources Institute specifically commits to promoting sustainable green infrastructure practices by conducting research and disseminating information on stormwater management best practices, low impact development (LID), and focusing the attention of those involved in environmental and water resources engineering on the ways in which sustainable development principles can and must lead to broader collaboration with other engineering and professional disciplines. ASCE commits to producing conferences and publications such as the Low Impact Development Conference highlighting new and continuing work including research developments and community adoption of LID throughout the United States and internationally.

American Society of Landscape Architects

American Society of Landscape Architects (ASLA), the national professional association for landscape architects, continues to play an enormous role in advocating for green infrastructure approaches. Its members are leaders in the design and implementation of these technologies in communities across the nation – solving an array of water and stormwater challenges. ASLA will continue its efforts to promote public policies that support the design, planning, and implementation of green infrastructure approaches to address stormwater management, and water quality and quantity challenges nationwide.

ASLA will work with allied organizations and coalitions to advocate on behalf of programs, policies, and research that promote the use of green infrastructure. The Society will continue to maintain, update, and enhance our online green infrastructure center, as well as highlight these issues in *Landscape Architecture Magazine* (LAM) and *The Dirt*.

ASLA commits to continue offering education opportunities to policy makers, allied design professionals, students, and the general public through tours and materials that showcase the success of the ASLA green roof. The Society pledges to bring the success of its green roof to the street level with the establishment of a green infrastructure streetscape demonstration project in ASLA's DC Chinatown neighborhood. The project includes the design, installation, and maintenance of an interconnected series of vegetated systems and innovative infrastructure technologies to manage stormwater runoff and beautify the public right of way. This project will serve as a model and educational tool for developers, designers, city officials, and the public. Located in an urban area that faces significant issues related to combined sewer outflows and a degraded watershed, the high level of visibility will also be particularly important.

American Public Transportation Association

The American Public Transportation Association (APTA) will help build capacity and education efforts among its transit agency and business members including technical sessions at APTA Bus, Rail Conference and most importantly the APTA Sustainability and Public Transportation Workshop in Portland, Oregon in 2015. In addition, we will hold educational webinars and informative peer exchanges and put a spotlight on innovative green design in bus and rail transit facilities.

Amigos De Los Rios

In 2005 Amigos de los Rios (Amigos) outlined a vision for the Los Angeles Basin known as the Emerald Necklace, keying off the 1929 Olmsted Bartholomew plan for the region. For the past 11 years we have worked with urban communities to demonstrate the multiple benefits of green infrastructure and its power to create sustainable and resilient urban environments in East Los Angeles County. We are committed to continuing our engagement in urban communities with a wide range of green infrastructure initiatives which serve as a catalyst for community empowerment and engagement and protect public health and the region's precious natural resources.

Our recently updated Emerald Necklace Forest to Ocean Expanded Vision Plan, developed in partnership with The Conservation Fund, builds off of our 11 years of green infrastructure experience to put forth a green infrastructure vision for the entire Los Angeles Basin that would connect the San Gabriel Mountains, Rim of the Valley, and Santa Monica Mountains to the Pacific Ocean via an interconnected network of trails, green spaces, stormwater management parks, and outdoor education opportunities along the region's major waterways and their tributaries united North to South, East to West Los Angeles. The plan outlines eight regional goals to accomplish this vision organized around the themes of:

1. Active Transportation
2. Balance of Green and Gray infrastructure
3. Access to Nature
4. Water as a Multi-Benefit Amenity
5. Design and Build Resilient Communities
6. Enhance Regional Open Space Anchors
7. Education, Engagement and Heritage
8. Foster a Green Economy

Amigos is committed to working collaboratively to realize this vision and goals to protect the equitable quality of life in American Urban Metropolitan Areas such as Los Angeles. AMIGOS and the Emerald Necklace Coalition of Agencies is excited to embrace unprecedented opportunities such as the potential designation of the San Gabriel Mountains as a National Monument, and the allocation of Federal monies towards non-vehicular urban pedestrian and bike trails through the Los Angeles mega region and Clean Water Act compliance. We are committed to continue to implement a network of demonstration projects to create meaningful linkages between communities and the ecological amenities that support our cities – and we are committed to support emergent businesses related to compliance with Clean

Water Act, creation of green infrastructure and in response to the challenges of climate change for our urban communities.

Association of Clean Water Administrators

The Association of Clean Water Administrators (ACWA) will work collaboratively with signatory organizations to advance an understanding of green infrastructure as a tool for reducing stormwater pollution and reducing overflows from sewer systems, and serve as a liaison between the states and EPA to identify challenges and opportunities for wider implementation of green infrastructure practices.

Center for Neighborhood Technology

The Center for Neighborhood Technology (CNT) commits to working with towns, cities, and states to help establish innovative services and programs aimed at accelerating the adoption of green infrastructure at scale:

- *RainReady Home* is a replicable service to help homeowners manage water (currently focused on property flooding). CNT provides free forensic assessments of their properties, which includes examining the property basement and foundation for damage, inspecting building sewers for blockages or breaks, and assessing the yard, gutters, and downspouts. The assessment team provides the property owners with a report that identifies the most effective investments to reduce their risks, and manages the retrofit contracting and financing, coordinating with landscaping, plumbing and building contractors.
- *RainReady Community* is a national initiative aimed at helping towns and cities develop a plan for managing water in relation to flooding, drought, and water quality. CNT helps them work with residents to carry out a Community Needs Assessment, and develop a plan of action based on a range of green and non-structural improvements.
- The *Green Infrastructure Portfolio Standard* (GIPS) is a tool designed to help municipalities and stormwater utilities plan for and implement green infrastructure in a cost-effective way. The tool concept is an adaptation to stormwater management of the “renewable energy portfolio standards” adopted by over 30 U.S. states. CNT, in partnership with American Rivers and the Great Lakes and St. Lawrence Cities Initiative, prepared a guide based on the approach “*Upgrade Your Infrastructure: A Guide to the Green Infrastructure Portfolio Standard and Stormwater Retrofits.*” CNT and our partners are available to help others cities use the tool.
- CNT and American Rivers produced a tool – *The Value of Green Infrastructure*. Based on desk research, the publication helps decision-makers and planners calculate and put a value on the economic, environmental and social benefits of potential green infrastructure investments. The publication is being used by a number of U.S. cities. CNT and our partners are available to help others cities use the tool.

The Conservation Fund

The Conservation Fund (TCF) commits to:

- Using green infrastructure principles and techniques to ensure our urban areas are resilient, economically viable, and food secure. Examples are underway or recently completed in Los Angeles, Chicago, Houston, San Diego, and Milwaukee. TCF commits to sharing best practices and lessons learned from these examples.
- Furthering the state of the practice by developing landscape scale strategic mitigation frameworks and structured decision-making tools to ensure compensatory mitigation is placed in areas that will result in the most benefits to the resources.

- Training a new generation of leaders in green infrastructure principles, practices, tools, and implementation strategies.
- Developing actionable planning tools sought by decision-makers such as the logic-scoring preference model to quantify benefits for project selection, optimization tools to maximize benefits in fiscally constrained environments, and ecosystem service tools to assist decision-makers in growth-scenario trade-offs.

Environmental Defense Fund

Environmental Defense Fund's Ecosystem Program will assist the Green Infrastructure Collaborative by:

- Identifying policies and practices that serve as barriers for implementation of green infrastructure solutions to reduce risks of climate change impacts, improve community and ecosystem resilience, and improve water quality and other ecosystem services; suggesting and pursuing solutions to remove those policy and practice barriers.
- Providing input on how to prioritize green infrastructure projects and investments.
- Organizing one or more events to develop research agendas for improving understanding and acceptance of green infrastructure.
- Sharing science, lessons learned, and other updates associated with the advancement of restoration of the Mississippi River Delta to provide ecological and risk reduction benefits.
- Developing solutions for understanding, managing, and communicating uncertainties.
- Sharing information on our *Changing Course* design competition to reimagine the design and operation of the lower Mississippi River so that it is again sustainable and resilient – for commerce, for ecology and for its communities.
- Seeking non-governmental funding to launch a design competition to spur green infrastructure to advance community resilience.

The Green Infrastructure Center

The Green Infrastructure Center helps local governments, communities, and regional planning organizations, land trusts, and developers evaluate their green infrastructure assets and make plans to conserve them. It commits to:

- Integrating green infrastructure more fully into everyday planning: In addition to making communities more resilient, the conservation and restoration of green infrastructure can help to mitigate or prevent the impacts of stormwater runoff. The Green Infrastructure Center will develop a green infrastructure assessment tool -- checkup --the *Green Doctor*, to help localities determine whether they have fully utilized their green infrastructure in meeting such regulatory requirements as open space preservation, stormwater management, clean air goals, TMDLs and other needs. The tool will include an assessment protocol and metrics to help them identify next steps. It will also help them identify how to better integrate green infrastructure assessments into everyday decisions, such as site plan approval.
- Building more resilient communities -- increasing community resiliency to climate change impacts: As communities experience the impacts wrought by climate change -- changes to species composition, flooding, temperature variations etc -- new plans are needed to enable communities to respond and adapt to changing conditions on the ground and to quickly recover from harm. Using a suite of mapping and risk assessment tools -- in partnership with federal, state and local agencies -- the Green Infrastructure Center will conduct several planning demonstration projects and share those methods broadly to help other climate challenged communities adapt successfully. Green infrastructure planning -- both natural and constructed green infrastructure -- will be at the forefront of our strategic approach.

- Building Interest and Capacity for Green Infrastructure Planning -- the Green Infrastructure Center will continue to build the practice of green infrastructure planning through:
 - Building green infrastructure habitat models for any interested state to better manage intact healthy landscapes (Green Infrastructure Center has built such models for VA, NY, AR and SC).
 - Providing technical assistance to localities and coaching them to develop their own integrated green infrastructure plans.
 - Development of the profession by teaching for-credit university courses and offering continuing education credits at professional conferences and workshops.

Institute for Sustainable Infrastructure

The Institute for Sustainable Infrastructure (ISI) is structured to develop and maintain a sustainability rating system for civil infrastructure. It commits to:

- Implementing existing programs and activities that support community green infrastructure.
- Sharing best practices to help standardize approaches and reduce uncertainty.
- Develop actionable planning tools sought by decision makers.

International Association of Plumbing and Mechanical Officials (IAPMO Group)

As an international trade association, the IAPMO Group focuses its comprehensive capabilities on the technical aspects of the plumbing, mechanical, and solar industries. It plays a key role in promoting green infrastructure in communities around the world through: developing essential codes and standards; educating the multiplayers of professionals required to design, installing and maintaining green infrastructure systems; and, working with local jurisdictions in addressing the specific challenges they face.

The IAPMO Group commits to:

- Convene a diverse group of experts to develop a new Green Plumbing and Mechanical Code Supplement (GPMCS) to help communities keep pace with the rapid advancement of sustainable construction practices. The GPMCS serves as an adjunct to any plumbing or mechanical codes used in the US. It is an important resource for progressive jurisdictions that seek to implement green building and water efficiency programs or enforce existing green ordinances. The GPMCS addresses key topics (e.g., gray water and water reuse, rainwater catchment systems) and is necessary to help standardize practices regarding the installation of these systems.
- Refine the baseline plumbing code that is used in thousands of jurisdictions across the country to further address water efficiency and green infrastructure. As the American National Standard for plumbing, the Uniform Plumbing Code (UPC) is our country's longest standing plumbing code, which is updated every three years to ensure safety and efficiency. In its upcoming launch of the 2015 UPC, the IAPMO Group will focus on achievable goals that reduce waste and conserve precious resources, while still enabling contractors to build affordable buildings with more efficient construction products and practices.
- Create a new construction code that will govern the installation and inspection of solar energy and hydronic heating and cooling systems. This resource is vital for decision-makers seeking to mainstream these construction practices and promote net-zero buildings.
- Partner with other industry stakeholders in pursuing a robust research agenda that is essential in advancing water efficiency. The Plumbing Efficiency Research Coalition's efforts will lead to

actionable solutions that communities can implement and make green building practices more affordable.

- Promote educational initiatives, such as *Green Plumbers*, that prepare the labor who are on the frontline of installing the multiple forms of green infrastructure and who work to educate consumers on these practices.

Low Impact Development Center

The Low Impact Development Center (LID Center) is a non-profit organization that combines land use planning and engineering principles to promote development that recreates pre-existing hydrologic site conditions. It commits to:

- Research, pilot studies, and training with DOTs, DOD, and municipalities on the use of Low Impact Development and green infrastructure at the watershed scale. This includes financing, integration with resiliency plans, and green job creation.

Mid-Atlantic Green Infrastructure Consortium

Mid-Atlantic Green Infrastructure Consortium's (MA-GIC) mission is to provide research-based recommendations to government and industry on green infrastructure stormwater practices. Work conducted by the partnership will range from the fundamental to the applied practical and will focus on a variety of land uses and climate conditions found among the Mid-Atlantic States.

MA-GIC is composed of the following universities:

- University of Maryland - Department of Civil and Environmental Engineering
- North Carolina State University - Department of Biological and Agricultural Engineering
- Villanova University - Department of Civil and Environmental Engineering

MA-GIC commits to advancing sustainable and resilient green infrastructure practices within stormwater through research and outreach.

National Association of Clean Water Agencies

The National Association of Clean Water Agencies (NACWA) will continue to promote green infrastructure and watershed-based approaches under the Water Resources Utility of the Future (UOTF) initiative and through its advocacy, outreach and educational efforts. This will entail:

- Acting as a conduit between utilities and EPA, to identify collaborative partners for integrated planning and green infrastructure program implementation.
- Ensuring key decision makers in the federal government are aware of the benefits of hybrid sustainable (gray and green) infrastructure.
- Supporting funding for innovative approaches to wet weather management.
- Identifying and addressing the barriers to large-scale green infrastructure implementation as it becomes a more accepted approach to wet weather management.

National Association of Development Organizations Research Foundation

The National Association of Development Organizations (NADO) is a membership organization for the national network of over 520 regional development organizations focused on strengthening local governments, communities, and economies through regional strategies, partnerships, and solutions. Regional development organizations (RDOs)—an umbrella term for the councils of government, regional planning commissions, economic development districts, and other multi-jurisdictional planning and economic development organizations that exist throughout the country—play an invaluable role in

fostering collaboration among federal, state, and local agencies; deliver and manage federal and state programs; and provide technical assistance and support to communities on economic and workforce development, transportation, land use, disaster resilience, small business development, and other issues. Founded in 1988, the NADO Research Foundation is the nonprofit research affiliate of NADO. The NADO Research Foundation identifies, studies, and promotes regional solutions and approaches to improving local prosperity and services through the nationwide network of RDOs.

Given the importance of green infrastructure in building more resilient and sustainable regions, the NADO Research Foundation commits to the following action items:

- Researching regional approaches to support green infrastructure implementation and sharing best practices with member regional development organizations.
- Disseminating information on green infrastructure tools and programs to member organizations.
- Incorporating green infrastructure into upcoming workshops, convenings, and conferences, where appropriate.

National Association of Flood and Stormwater Management Agencies

The National Association of Flood and Stormwater Management Agencies (NAFSMA) will leverage members' expertise in urban flood, floodplain, and stormwater management to communicate how Low Impact Development (LID) and green infrastructure approaches can be used to manage urban floodwaters and stormwater effectively. NAFSMA will collaborate with EPA and others to encourage and support the use of various LID and green infrastructure approaches to help promote resiliency and assist in improving water quality. The Association will also perform outreach on available tools and resources for NAFSMA members and others to evaluate barriers to the use of LID and green infrastructure and to provide options for alternatives when appropriate, all to help reduce urban stormwater contaminants and flooding.

National Recreation and Park Association

National Recreation and Park Association (NRPA) will highlight and disseminate best practices in using green infrastructure to effectively manage stormwater runoff on park and recreation sites across the country. NRPA will highlight and facilitate innovative partnerships between public, private, and not-for profit sectors to increase the number of park and recreation agencies who maximize their potential to adopt green infrastructure solutions that create multiple community benefits.

Natural Resources Defense Council

The Natural Resources Defense Council is one of the nation's largest environmental stakeholder groups and is a staunch supporter of green infrastructure. It commits to:

- Advocate and litigate for full enforcement by EPA and states of Clean Water Act requirements to control stormwater and promote retention practices that drive green infrastructure.
- Develop tools to help municipalities and private developers quantify the benefits from green infrastructure implementation and to finance green infrastructure initiatives.

TreePeople

TreePeople is a leader in providing sustainable solutions to urban ecosystem problems through environmental education, forestry programs, demonstration projects, and policy outreach. It commits to:

- Building and operating the Multi-Agency Collaborative in greater Los Angeles. The Los Angeles Multi-Agency Collaborative (LA-MAC) includes four founding partners: the Los Angeles Department of Water and Power, the City of Los Angeles Bureau of Sanitation, the Los Angeles County Department of Public Works Flood Control Agency and TreePeople. The LA-MAC is exploring methods to significantly enhance and formalize integrated planning, design, finance, construction, operations and maintenance of green, multi-purpose, water infrastructure in order to achieve sustainability and climate resilience.

The LA-MAC plans to expand to include additional partner agencies, such as the Los Angeles Unified School District. The LA-MAC will:

- Investigate and learn from other relevant large-scale infrastructure collaborations such as those that have launched in Australia and the Netherlands.
- Design and build together a pilot-to-scale *Smart Water Grid*, which if successful will enable rapid expansion of local water resources and a curtailment of water pollution via a combination of advanced landscape transformation, conservation, and electronically networked distributed rainwater harvesting cisterns.
- Upgrading and Revitalizing the *T.R.E.E.S.* Cost-Benefit Model: a decision support tool for facilitating multi-agency investment in watershed green infrastructure.
- Implement its 10 year strategic vision to inspire, engage, and support Los Angelenos in accelerating a shift to climate resilience by adopting green infrastructure practices in their homes, neighborhoods, schools and businesses.
- Share progress and results with the Green Infrastructure Collaborative and other interested entities across the country and internationally.

Trust for Public Land

The Trust for Public Land commits to provide tools, technical assistance, and project implementation to help cities across the country leverage green infrastructure to achieve clean urban waters, vibrant public park systems, and Climate-Smart Cities. Our multiple-benefit “stacking” approach helps cities evaluate and integrate green infrastructure across traditional metrics such as stormwater management and public park access, but also climate-specific metrics such as heat island mitigation, carbon reduction opportunities, and future climate scenarios that will impact green infrastructure needs and performance. The Trust for Public Land is already engaged in these efforts in partnership with diverse cities across America, including to New York City, Philadelphia, Cleveland, Milwaukee, Chattanooga, Atlanta, New Orleans, Denver, Twin Cities, San Francisco, Los Angeles, Bridgeport (CT), and Newark.

Specifically, The Trust for Public Land will commit to the following tools and resources:

- Develop geographic information systems (GIS) data, modeling, and decision support tools to help cities identify “multiple-benefit” priority areas for green infrastructure implementation across city, neighborhood, and site scales.
- Work with academic institutions, such as Columbia University and Drexel University, to provide cities with scientific research that helps inform green infrastructure strategies and implementation at multiple scales.
- Help cities to engage community members and organizations in high priority areas for green infrastructure, including deployment of participatory design and other tools that help shape green infrastructure implementation and long-term stewardship to meet multiple community interests.

- Lead the design and development of diverse green infrastructure projects, including parks, playgrounds, gardens, wetlands, urban forests, and greenways, that integrate green infrastructure functions with features that promote community use and enjoyment.
- Provide leadership in development of state and local funding sources through The Trust for Public Land's conservation finance program, which has helped create nearly \$35 billion in new voter-approved funding for parks and land conservation. Green infrastructure has been a central part in ballot measures supported by The Trust for Public Land in Houston, St. Louis, Newark, Portland (OR), and the State of New Jersey.

U.S. Water Alliance

The U.S. Water Alliance is a non-profit organization working to promote holistic, watershed-based approaches to water quality and quantity challenges. It commits to:

- Advocate for policies and practices that manage and reduce stormwater and support the use of green infrastructure.
- Develop tools that help communities develop green infrastructure plans and goals, and choose green infrastructure solutions that work for them.
- Act as a liaison between EPA and watershed and river groups interested in using green infrastructure to protect their local rivers.

University of New Hampshire Stormwater Center

The University of New Hampshire Stormwater Center actively studies all forms of stormwater management. This includes hydraulic and water quality performance monitoring, designs, design modifications, specifications, implementation, economics, maintenance, and receiving water interface. The Center has a very active outreach program meant to enhance the implementation of green infrastructure. This outreach component includes various aspects of STEM education. The University of New Hampshire Stormwater Center commits to:

- Continue to study, develop, and improve green infrastructure systems in design, performance and cost effectiveness.
- Apply for green infrastructure implementation funding for community projects.
- Continue green infrastructure outreach and awareness efforts.
- Employ green infrastructure for STEM initiatives.
- Continue conducting research on operation and maintenance of green infrastructure practices and long term life cycle cost and affordability.
- Demonstrate, on the watershed scale, the ecosystem benefits, economic and resiliency benefits, and social capital benefits of green infrastructure.
- Demonstrate that impaired waterways may be de-listed through the use of green infrastructure.
- Examine and explore the technical and human dimension barriers to adoption of green infrastructure rooted strategies to manage water resources.
- Identify key roles individuals play in decision-making, identify these roles, and delineate how the roles are involved in decision-making.
- Assist communities, NGO's, watershed and environmental groups, developers, and other interested parties apply for and secure funding for green infrastructure projects.

Water Environment Federation

The Water Environment Federation (WEF) is a not-for-profit technical and educational organization and the primary voice of water quality and Clean Water professionals in the United States, representing with 36,000 individual members and 75 affiliated Member Associations. WEF has over 40 technical

committees, including a stormwater and a watershed management committee, both with over 100 members. WEF hosts the WEF Technical Exhibition and Conference (WEFTEC), the largest annual water conference in the world, which now includes the WEF Stormwater Congress that brings together stormwater professionals from across the country to focus on the high-priority challenges facing the stormwater and wet weather community. In addition, WEF has a number of relevant award winning publications and periodical including the Manual of Practice (MOP), titled *Design of Urban Runoff Controls*, and a bi-monthly magazine, *World Water: Stormwater Management*, which is focused on stormwater management issues around the globe. WEF will leverage the assets listed above to commit to the following items and activities:

- Continue to provide technical and policy-oriented products to and programming for stormwater professionals and to the regulated stormwater community, including MS4s, communities addressing stormwater-related TMDLs, and those utilities facing wet weather challenges (CSO, SSO, high-rate wastewater treatment).
- Promote the wider implementation of green infrastructure practices in a successful manner through the following:
 - Continue to provide diverse technical and policy programming provided at WEFTEC and related events focusing on various aspects of green infrastructure.
 - The development of peer-reviewed technical publications on green infrastructure, such as *Green Infrastructure Implementation*, a WEF special publication released in August 2014.
- Continue to encourage the use of Low-Impact Development (LID) and green infrastructure design competitions to challenge the design and land development communities to integrate retention-based practices and approaches in site development designs. The report and other information listed at www.wef.org/lidcompetition will continue to be update to provide relevant and fresh information on design competitions around the country. Consideration will be made to host a national event at WEFTEC/Stormwater Congress in the future.
- Recognize high-performing MS4 communities through a national program highlighting outstanding MS4 programs. The goal is to inspire MS4 program leaders to not just meet minimum regulatory requirements, but seek new and innovative ways to exceed these requirements in a manner that is both technically effective as well as financially efficient. Further, this program aims to reward and promote those communities who see the investment in innovative stormwater approaches and green infrastructure as an opportunity to provide economic and community benefits as well as creating more resilient urban systems that will provide the adaptability of infrastructure needed in the face of a changing climate.
- Provide forums for groups representing MS4 communities as well as other groups to discuss critical issues related to the design, implementation and maintenance of green infrastructure. The goal of these forums is to promote peer-to-peer information exchange and learning for MS4 communities in order to continuously improve on technical and programmatic aspects of stormwater management across the country as well as to identify areas of common interests in terms of advocacy and policy issues critical in the green infrastructure sector.

Willamette Partnership

Willamette Partnership is a nonprofit dedicated to increasing the pace, scope, and effectiveness of conservation across the West. The Partnerships knows that integrated approaches to green infrastructure are essential--to our ecosystems, economy, and healthy communities. The Partnership commits to:

- Provide its tools for quantifying, tracking, and financing green infrastructure approaches to communities to meet health, economic, habitat, hazard mitigation, transportation, water, stormwater, wastewater, and other goals.
- Engage healthcare providers to articulate how green infrastructure is an important part of our health infrastructure.

World Resources Institute

The World Resources Institute (WRI) is a global research organization that works closely with leaders to turn big ideas into action to sustain a healthy environment—the foundation of economic opportunity and human well-being. WRI commits to:

- Engage key decision makers in government, civil society, and the private sector to raise awareness of the benefits of natural infrastructure approaches.
- Focus on making the business and financial case for investments in natural infrastructure as part of an integrated water management portfolio.
- Highlight the major barriers to natural infrastructure implementation and strategies to increase investments at scale.

Appendix A

2007 Statement of Intent

Background

In 2007, EPA, the Association of Clean Water Administrators (formerly the Association of State and Interstate Water Pollution Control Administrators), National Association of Clean Water Agencies (NACWA), Natural Resources Defense Council (NRDC), and the Low Impact Development Center (LIDC) signed a *Statement of Intent* (http://water.epa.gov/infrastructure/greeninfrastructure/upload/gi_intentstatement.pdf) establishing a joint effort to promote the benefits of green infrastructure to enhance water infrastructure performance, protect drinking water supplies and public health, mitigate overflows from combined and separate sewer systems, and reduce stormwater pollution. American Rivers, U.S. Water Alliance, and Water Environment Federation (WEF) joined this partnership in the intervening years. The original Statement identified a number of objectives for the signatories to address.

In 2008, EPA and the partner organizations released a *Green Infrastructure Action Strategy*, detailing the actions the partners would undertake to advance the objectives of the 2007 Statement of Intent, listed below. EPA has provided two updates to the Strategy, in 2011 and 2013, both identified as EPA's Green Infrastructure Strategic Agenda, which also emphasize the use of partnerships to build community capacity.

2007 Objectives

The objectives of this Statement are to:

- Affirm the belief by the signatory organizations in the value of green infrastructure as both a cost effective and an environmentally preferable approach to reduce stormwater and other excess flows entering combined or separate sewer systems in combination with, or in lieu of, centralized hard infrastructure solutions;
- Establish a framework for working together to advance an understanding of green infrastructure as a tool for reducing overflows from sewer systems and stormwater discharges and to encourage and promote their wider application;
- Identify partnership opportunities between the signatory organizations; and
- Develop strategies to promote the use of green infrastructure by cities and utilities as an effective and feasible means of reducing stormwater pollution and sewer overflows such as:
 - Developing models for all components of green infrastructure and make them available nationwide;
 - Exploring opportunities and incentives for the use of green infrastructure provisions in MS4 permits and CSO Long Term Control Plans (LTCs), including as a component of injunctive relief provisions of enforcement actions;
 - Developing memoranda and guidance materials, including language for the NPDES permit writer's manual, that would explain how regulatory and enforcement officials should evaluate and provide appropriate credit for the use of green infrastructure in meeting Clean Water Act requirements;
 - Recognizing the most effective and innovative uses of green infrastructure to meet Clean Water Act goals through EPA awards or recognition programs;

- Providing technical assistance, training, and outreach to potential users of green infrastructure, including states, cities, counties, utilities, environmental and public health agencies, engineers, architects, landscape architects, planners and nongovernmental organizations;
- Establishing a web-based green infrastructure resource center at EPA to assist communities in complying with requirements for combined sewer overflows and municipal stormwater permits and evaluating the multiple environmental benefits that green infrastructure can provide; and
- Developing tools to assist local green infrastructure programs with outreach, training, model development and application, planning and design, monitoring, and plan review.

The joint efforts of the Green Infrastructure *Statement of Intent* advanced knowledge and available tools accessible to communities. Accomplishments include:

- Policy guidance, permitting, and enforcement:
 - *Protecting Water Quality with Green Infrastructure in EPA Water Permitting and Enforcement Programs*, http://www.epa.gov/npdes/pubs/gi_memo_protectingwaterquality.pdf
 - *Achieving Water Quality Through Integrated Municipal Stormwater and Wastewater Plans*, <http://water.epa.gov/infrastructure/greeninfrastructure/upload/memointegratedmunicipalplans.pdf>
 - Injunctive relief provisions in CSO control plans, http://water.epa.gov/infrastructure/greeninfrastructure/gi_regulatory.cfm
 - *Green Infrastructure Permitting and Enforcement Series*, http://water.epa.gov/infrastructure/greeninfrastructure/gi_regulatory.cfm
 - *Permitting Green Infrastructure: A Guide to Improving Municipal Stormwater Permits and Protecting Water Quality* (American Rivers), <https://www.americanrivers.org/assets/pdfs/reports-and-publications/permitting-green-infrastructure.pdf>
- Tools and technical assistance:
 - EPA National Stormwater Calculator, <http://www.epa.gov/nrmrl/wswrd/wq/models/swc/>
 - EPA Green Infrastructure Technical Assistance Program, http://water.epa.gov/infrastructure/greeninfrastructure/gi_support.cfm#Technical
 - WEF white paper on *Hosting a Low Impact Development Design Competition*, <http://www.wef.org/LIDcompetition/>
 - Get More Green (American Rivers), <http://green.americanrivers.org/>
 - *Creating Clean Water Cash Flows: Developing Private Markets for Green Stormwater Infrastructure in Philadelphia* (NRDC), <http://www.nrdc.org/water/stormwater/green-infrastructure-pa.asp>
- Outreach and Benefits
 - Development of EPA green infrastructure web site: <http://www.epa.gov/greeninfrastructure>
 - *Rooftops to Rivers II: Green Strategies for Controlling Stormwater and Combined Sewer Overflows* (NRDC), <http://www.nrdc.org/water/pollution/rooftopsII/default.asp>
 - *The Green Edge: How Commercial Property Investment in Green Infrastructure Creates Value* (NRDC), <http://www.nrdc.org/water/commercial-value-green-infrastructure.asp>
 - *A Clear Blue Future: How Greening California Cities Can Address Water Resources and Climate Challenges in the 21st Century* (NRDC), <http://www.nrdc.org/water/lid/>
 - *Capturing Rainwater from Rooftops: An Efficient Water Resource Management Strategy that Increases Supply and Reduces Pollution* (NRDC), <http://www.nrdc.org/water/rooftoprainwatercapture.asp>

- *Banking on Green: A Look at How Green Infrastructure Can Save Municipalities Money and Provide Economic Benefits Community-wide* (American Rivers, WEF, ASLA and ECONorthwest), <http://www.americanrivers.org/assets/pdfs/reports-and-publications/banking-on-green-report.pdf>
- Highlighting green infrastructure in conferences, newsletters, and webcasts (e.g., 2013 National Community Summit on Green Infrastructure Summit and EPA's 2014 Green Infrastructure Webcast Series)