

A Strategic Agenda to Protect Waters and Build More Livable Communities Through Green Infrastructure April 2011

Supporting the work of local communities to improve their environment, protect public health and build greener, more economically vibrant communities is a key Administration priority. Green infrastructure (GI), protecting and restoring natural landscape features and using natural systems (or systems engineered to mimic natural processes) to manage rain water as a resource, is a win-win-win approach and a fundamental component of the U.S. Environmental Protection Agency's (EPA) sustainable community efforts. By helping urban communities manage stormwater, while also providing additional benefits such as increased recreational space and improved pedestrian safety, communities can be made both more attractive and livable.

EPA supports expanded use of green infrastructure to protect and restore waters while creating more environmentally and economically sustainable communities. This *Strategic Agenda to Protect Waters and Build More Livable Communities Through Green Infrastructure* outlines key near-term activities to help make green infrastructure an available tool for meeting Clean Water Act requirements in sewer permitting and plans, enforcement orders and consent decrees, and other areas. The Agenda is the product of a cross-EPA effort and serves to both update the 2008 Action Strategy entitled "Managing Wet Weather with Green Infrastructure," as well as to coordinate with a range of EPA and other Federal programs (interagency (HUD/DOT/EPA) Partnership for Sustainable Communities, Brownfields, Urban Waters, Climate Showcase Communities, Environmental Justice Showcase Communities, Greening America's Capitals, etc.), in fostering on-the-ground GI implementation.

Our activities will focus on five main objectives selected to encourage communities to adopt green infrastructure solutions:

1. Community partnerships;
2. Clarifying green infrastructure within the regulatory and enforcement contexts;
3. Outreach and information exchange;
4. Financing; and
5. Tool development and capacity building.

All results and products of this Strategic Agenda will be posted to our website:
<http://epa.gov/greeninfrastructure>.

Strategic Agenda Action Items

1) Engage Partnerships To Both Move Green Infrastructure Implementation To The Next Level Within Selected Volunteer Communities, And Utilize Such Partnership Lessons And Information To Accelerate Green Infrastructure Implementation Across The Nation

- a) **Partner with green infrastructure communities across EPA's 10 Regions.** Obtain feedback from partner community work to inform and guide national policy development and implementation.
 - i) **Committed green infrastructure communities (near term):** Spotlight progress to date within 10 communities who have already committed to using GI to address water quality and community needs. Leverage work underway as an opportunity to highlight GI and its potential to both focus and provide discrete additional EPA assistance, as needed.
 - ii) **Budding green infrastructure communities (longer term):** Identify up to 25 cities that are relatively new to GI to begin partnering with over the next 2 years to foster GI implementation. Provide targeted EPA technical assistance depending upon needs (e.g., via public charrettes, tactical team assistance, information sharing on financing and how to access potential matching funds) to assist these communities in utilizing GI approaches.
- b) **National stakeholder conversations.** Engage representative state and local stakeholders, planners, developers and builders to determine what additional tools and capacity building efforts are needed to advance GI throughout the U.S.
- c) **Connect with other related green infrastructure actors and initiatives.** Identify and connect with other related efforts at all levels, including federal agencies, where GI is helping support sustainable communities, healthy watersheds, environmental improvements in environmental justice communities, climate change adaptation, etc.

2) Clarify The Regulatory And Enforcement Context Of Green Infrastructure

- a) **Demonstrate how green infrastructure can be incorporated into combined sewer overflow (CSO) control plans.** Develop a tool to help communities identify how GI can be incorporated into CSO Long Term Control Plans.
- b) **Demonstrate how green infrastructure can be incorporated into municipal separate storm sewer system (MS4) programs.** Develop tools and examples that demonstrate how communities can address existing institutional impediments to incorporating GI into MS4 management strategies, including code revisions and incentives.

- c) **Provide technical information and resources on using green infrastructure in permitting and enforcement.** Develop green infrastructure permitting and enforcement fact sheets and examples to assist communities. Provide web-based information and examples of applying GI in permits, incentives, Consent Decrees, etc.
 - d) **Provide training, outreach and technical support for EPA, States and communities.** Provide required training, outreach and technical support on how to incorporate GI successfully into permitting and enforcement to community leaders, states, and other key stakeholders.
- 3) **Facilitate Research And Ongoing Communication And Information Exchange To Help Green Infrastructure Implementation**
- a) **Develop EPA as a clearinghouse for green infrastructure research information by creating a data and tools inventory.** Compile, analyze, and maintain data and modeling tools related to GI effectiveness, costs and additional benefits. Identify and screen both widely available GI research and completed research not yet widely circulated. Identify key research gaps and promote research to meet the highest priority needs.
 - b) **Widely share green infrastructure inventory information with practitioners.** Develop and maintain tools for communication and retrieval of GI inventory clearinghouse information. Work with partners to develop information on the state of the art for design, operation and maintenance of GI techniques and to communicate that information to the intended audience.
- 4) **Develop Green Infrastructure Financial Information Needed By Community And Business Decision Makers**
- a) **Provide an updated resource guide on funding opportunities.** Update information on EPA's GI webpage about sources of funding for GI projects including creative funding opportunities and case studies, and a list of federal grant programs where the GI connection can be made.
 - b) **Continue to facilitate the development of information on the real cost of green infrastructure investment and O&M, the monetary and non-monetary benefits of green infrastructure, and comparison of the costs of green and gray solutions.** Develop documents that address the analyses noted above and outline related topics such as steps to project level financial decision making, options to quantify benefits, reduce risk and generate more certainty, and explain the various tools and data sources available to support each analysis.

- c) **Identify ways communities and private parties may finance green infrastructure, especially operations and maintenance (O&M).** Collect and post innovative examples (e.g., trust funds, bonds). Develop information on existing stormwater, permitting, zoning, utility or other fee financing mechanisms for GI, as well as examples, and lessons learned. Offer specific examples of O&M funding strategies, including examples from innovative communities, and lessons from partner communities (as in #1).
 - d) **Address the green infrastructure implementation obstacle of real or perceived risk, and investigate ways to help insulate communities from perceived risk related to choosing green infrastructure technologies.** Work with a range of stakeholders to explore critical factors related to various insurance opportunities and other risk reduction mechanisms.
- 5) **Develop Tools And Facilitate Capacity Building For Regulated Entities And Others To Utilize Green Infrastructure In Working Toward Both Regulatory Compliance As Well As Community Enhancement Goals**
- a) **Update the green infrastructure website to provide a single point of entry to EPA's information about green infrastructure.** Reorganize the website and provide navigational tools to help users find the information they need. Add and/or provide links to new or updated information, such as the GI research information gathering efforts. The website update may include a new blog element that will allow questions and comments about GI to be posted and also provide a forum to solicit user feedback.
 - b) **Build capacity by providing regular opportunities for communication among communities implementing green infrastructure, incentives and on-line training.** Create opportunities to exchange information by instituting "Ask the Expert" interactive webinars, providing online peer-to-peer exchanges and a framework for GI community mentoring. Provide incentives for communities to strengthen their programs or explore the field of GI by offering award and competition programs. Institute online training through a GI Virtual Academy (similar to EPA's Watershed Academy).
 - c) **Create and make available the planning, design and other tools necessary for communities and practitioners to make informed decisions when considering the development and implementation of green infrastructure programs and practices.** Develop O&M tools such as a best practices guideline and cost comparison tool to foster informed decisions highlighting positive project outcomes which also influence future community GI adoption. Coordinate across EPA to ensure the GI performance, effectiveness and cost tools are developed to assist communities and practitioners in making informed decisions about the implementation of GI. Develop a contractor selection guidance tool for communities directly hiring contractors to implement community GI projects. These tools, or their links, will be housed on the GI website.

- d) **Implement internal guidance to encourage green infrastructure implementation through existing EPA efforts.** Working with the various grant programs, develop template(s) which promote GI considerations within the ranking of proposals (e.g., Brownfields, Urban Watersheds, Wetlands, Environmental Justice, Sustainability). Ensure extra points are given to those grant proposals that include GI activities. Use National State Revolving Fund (SRF) Guidance or other mechanisms to focus the state SRF grants on GI projects.