

GREEN INFRASTRUCTURE AND LANDCARE WORKSHOP

A SUMMARY

National Association of Regional Councils
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Overview

The **National Association of Regional Councils** (NARC), with support from the U.S. Forest Service, presented a workshop on regional green infrastructure and Landcare practices. Defined as a strategically managed network of natural lands, working landscapes and open spaces, green infrastructure preserves ecological functions while helping regions meet environmental, recreational and quality of life goals. With pressing needs to reduce stormwater runoff, lessen air pollution and extend the life of traditional infrastructure, the development and preservation of green infrastructure has never been more important to regions.

The Green Infrastructure and Landcare Workshop featured a broad overview of green infrastructure and Landcare issues and on-the-ground examples of leading programs, with a focus on how to start and maintain a regional program. The workshop was moderated by Mr. Ken Fallows, Chair of the Toledo Metropolitan Area Council of Governments Environment Council and Co-Chair of the NARC Environment Committee, and featured two panels with a total of seven speakers. Panel I focused on the current state of green infrastructure practices across the country and how these practices can be applied on a regional level. Panel II included two recently selected *Regional Centers of Excellence* in green infrastructure and Landcare, as well as NARC association partners detailing their experiences in building capacity and establishing partnerships for improved regional green infrastructure and Landcare efforts. A total of three regional green infrastructure programs were highlighted during the workshop, demonstrating how regional councils of different sizes, capacities, geographies and ecological compositions can establish strategic efforts to protect environmental resources and natural lands.

Panel I: Overview and Getting Started

- **Margie Ewing, State and Local Forestry in Urban and Community Forestry for the Forest Service.** Ms. Ewing described the Forest Service's long history in green infrastructure activities and several tools, publications and grant opportunities that could enhance regions' abilities to develop and implement green infrastructure programs. She focused on the Forest Service's role as a facilitator and partner in programs that protect regional green infrastructure and promote Landcare.
- **Paul Barnes, GIS Manager, Southern Mississippi Planning and Development District (SMPDD).** Mr. Barnes provided an overview of SMPDD's *Gulf Coast Heritage Trails* project, an effort which features numerous partners and focuses on developing an interactive and collaborative map of greenways and blueways in three of SMPDD's 15 counties, using Geographic Information Systems (GIS) technology. The completed project will provide a single website and map with a variety of information on paths and trails in the area for locals and visitors alike.



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- **David Hansen, GIS Analyst, Southern Mississippi Planning and Development District (SMPDD).** Mr. Hansen focused on the technical aspects of SMPDD's *Gulf Coast Heritage Trails* project, emphasizing the opportunities to utilize web 2.0 technologies and incorporate user-generated content into the greenways and blueways map. He also noted that this mapping project may serve as a base for developing a single trail that connects all three coastal counties participating in the project.

Panel II: Building Capacity and Regional Centers of Excellence

- **Angela Pierce, Natural Resources Planner, Bay-Lake Regional Planning Commission (BLRPC).** Ms. Pierce detailed BLRPC's environmental corridor mapping project that was recently selected as one of NARC's *Regional Centers of Excellence*. The mapping project identified and defined green infrastructure features to be included in region-wide environmental corridor maps which were then provided to individual jurisdictions as overlays for their comprehensive, watershed and habitat, sewer service area, transportation and land use planning efforts.
- **Gregory Heller, Planning and Design Analyst, Delaware Valley Regional Planning Commission (DVRPC).** Mr. Heller outlined DVRPC's effort to incorporate transportation, energy efficiency, land use and conservation in DVRPC's *Connections: The Regional Plan for a Sustainable Future*. Through *Connections*, DVRPC plans to protect 500,000 acres of green infrastructure, including open space, natural resources and farmland. To achieve this, DVRPC is coordinating their long range planning, environmental screening, green streets, smart growth planning, municipal open space planning, economic value of open space and food system study efforts. DVRPC was also selected as one of NARC's *Regional Centers of Excellence*.
- **Debra Bogar, Northern Plains Region Representative, National Association of Conservation Districts (NACD).** Ms. Bogar highlighted NACD and all conservation districts' common mission: *to coordinate assistance from all available sources—public and private, local, state and federal—in an effort to develop locally-driven solutions to natural resource concerns*. She also discussed existing projects and relationships with numerous federal, state and local agencies that make conservation districts ideal partners for regional councils engaging in green infrastructure work.
- **Karen Berry, Wheat Ridge City Councilmember and Jefferson Conservation District Board Member.** Ms. Berry focused her presentation on the Jefferson Conservation District's work and how it can serve as a resource and partner for local regional councils, including the Denver Regional Council of Governments. She highlighted the common goals the two organizations share, along with the technical knowledge and unique relationships with public and private landowners that a conservation district can offer.

Common Themes

Several common themes emerged throughout the workshop, including:

1. **The importance of integrating green infrastructure and conservation work into all aspects of a regional council's work.**
 - **Mr. Heller** emphasized the ways in which green infrastructure preservation efforts were incorporated into DVRPC's comprehensive Long Range Transportation Plan (LRTP), *Connections*, including the use of an environmental screening tool for transportation projects. Through *Connections*, DVRPC incorporates transportation, energy efficiency, land use and conservation planning to address regional challenges such as population growth, shifting employment centers and increasing vehicular miles traveled. By incorporating regional land use plans, greenspace maps and conservation focus areas in the LRTP, DVRPC demonstrates that preserving green infrastructure is not an "add on" but an integral part of their regional plan.
 - **Ms. Pierce** highlighted BLRPC's use of maps that include overlays of environmental corridors and features in their work with individual counties throughout the region. By providing maps that highlight the local jurisdiction's green infrastructure, BLRPC assists city and county planners in incorporating green infrastructure preservation in their comprehensive, watershed and habitat, sewer service area, transportation and land use planning efforts.

- **Mr. Hansen's** demonstration of SMPDD's GIS map of the *Gulf Coast Heritage Trails* project showed that SMPDD's work allows green infrastructure, such as greenways and blueways, to be combined with sewer and other essential data sets. Through this technology, SMPDD is able to view and incorporate green infrastructure in its different planning efforts.

2. The need for partnerships to effectively build a green infrastructure program.

- **Mr. Barnes** listed a number of partners working together to develop the map for the Gulf Coast Heritage Trails Network, including the Gulf Coast Heritage Trails Network itself, the Mississippi Department of Marine Resources, the Gulf Regional Planning Commission and the state tourism bureau.
- Both **Ms. Bogar** and **Ms. Berry** emphasized the increased opportunity for successful green infrastructure programs through partnerships with conservation districts and other organizations with similar goals. Among the many benefits of such a partnership, they highlighted conservation districts' working relationships with both public and private landowners; their position as local units of state government; their many authorities, including those to conduct surveys, investigations, research, and enter into agreements; and their ability to serve as a technical resource for a regional council.
- **Ms. Ewing** highlighted several examples in which the Forest Service worked with state and local agencies or governments to establish green infrastructure programs. Combinations of funding, staff and expertise from multiple partners have allowed for projects such as tree cover and planting opportunity studies in the City of Baltimore and the TreeVitalize program providing tree planting and maintenance opportunities in the City of Philadelphia. With the Forest Service as a facilitator working with local governments, state agencies, regional councils and nonprofit organizations, the success of green infrastructure programs can be maximized while minimizing the strain on any single partner's resources.

3. The opportunity for the use of new technologies to improve regional green infrastructure protection.

- **Ms. Ewing** identified several useful tools that will allow regions to assess and manage urban and community forests. These tools include the i-Tree Tools, which deliver all Forest Service tools and applications in a single software suite, including UFORE, the Urban Forest Effects Model, a program that assesses the structure, function, value and management of urban ecosystems. The Forest Service supports and provides a wide variety of newly developed tools available for regions to use for projects that could expand or protect regional green infrastructure.
- **Mr. Heller** noted that DVRPC has been working with new technologies for several projects, including an environmental screening tool that provides a numeric value for a proposed project's environmental impact. Beyond the screening tool, DVRPC also provides community visioning strategies and GIS mapping services for municipalities working on open space planning efforts.
- **Ms. Pierce** highlighted BLRPC's environmental corridor mapping project, which combines data layers of environmental corridors, regionally defined or "primary" green infrastructure features and county defined or "secondary" green infrastructure features. BLRPC used multiple data layers to develop specialized region-wide and individual county maps, fulfilling a wide variety of needs with limited data and staff time.
- **Mr. Hansen** described SMPDD's effort to engage the local hiking and kayaking communities in adding content to their three-county greenways and blueways map. The maps not only allow users to select which content is displayed, but will also eventually allow users to provide additional data for inclusion on the map. By engaging web 2.0 and user-generated content, SMPDD will have established a baseline of information that can be updated by map and trail users in real time, at the completion of the project.

Topics for Further Investigation

Several topics were brought up in both presentations and audience discussion that warrant further investigation. NARC looks forward to continuing to research and identify case studies on these topics, and welcomes the submission of comments or suggestions for additional resources. These topics include:

- 1. Quantifying the value of preserving, protecting or expanding green infrastructure.** While numerous benefits of green infrastructure were highlighted and noted in the workshop, regional green infrastructure programs would benefit from additional methods of quantifying the value of protecting green spaces. Such quantification might help regional councils gain support for green infrastructure protection programs, particularly in the face of tightening budgets. Presenters in this workshop noted that studies show that trees increase property values by 10 to 20 percent, increase municipal revenue, lead to shoppers spending more time and money in commercial centers, and increase the capacity and lifespan of traditional infrastructure. However, there is still a lack of widely accepted information on total economic benefit. Benefits, both qualitative and quantitative, need to be further established and more accessible for regional councils to identify or calculate.
- 2. Increasing the use of web 2.0 and new technologies in the preservation of green infrastructure.** While the presentations illustrated that incorporating new technologies into regional green infrastructure programs can be a key factor for success, many localities and regions face challenges in utilizing the available technologies due to funding, knowledge and staffing shortages. Even organizations that are taking steps forward to utilize these new technologies, such as SMPDD, continue to struggle in determining how to monitor user-generated content for accuracy and appropriateness. Regional organizations play an important role in building the technical capacity of local governments, and in synthesizing information across a large geographic area. Greater support and new partnerships are needed to enable regional organizations to take on additional responsibilities related to new technologies and to significantly increase the amount of green infrastructure that can be preserved.

Selected Resources:

U.S. Forest Service - Urban and Community Forestry – www.fs.fed.us/ucf
National Association of State Foresters – www.stateforesters.org
Tools for Assessing and Managing Community Forests – www.itreetools.org
UFORE: Urban Forest Effects Model – www.ufore.org
Planning the Urban Forest: Ecology, Economy, and Community Development –
www.planning.org/research/forestry
Southern Mississippi Planning and Development District (SMPDD) – www.smpdd.com
SMPDD Map Gallery – gis.smpdd.com
Bay-Lake Regional Planning Commission (BLRPC) – www.baylakerpc.org
Delaware Valley Regional Planning Commission (DVRPC) – www.dvrpc.org
DVRPC's Green Initiatives: Green Region – www.dvrpc.org/green
DVRPC's Connections Plan – www.dvrpc.org/connections
National Association of Conservation Districts – www.nacdnet.org
Jefferson Conservation District – www.jeffersonscd.org
Landcare Central – www.landcarecentral.org
Denver Regional Council of Governments – www.drcog.org
National Association of Regional Councils (NARC) – www.narc.org
Green Regions Campaign – www.greenregions.org



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