

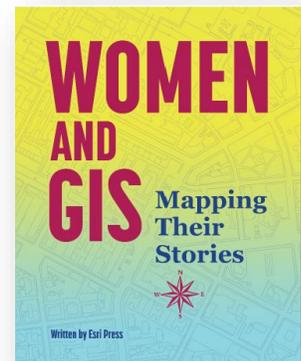


# Executive Director's End of Year 2019 Report

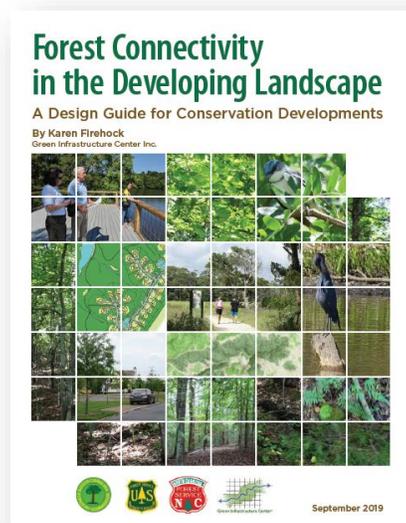
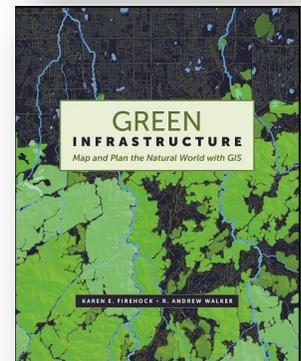
[www.gicinc.org](http://www.gicinc.org)

GIC ends 2019 with many accomplishments in its **second decade** of helping communities map, assess, conserve and restore their natural landscapes from wildlands to urban centers. GIC is being recognized for its work in many ways, several of which are noted below! GIC has a staff of three full time and three part time staff. Learn more about us at <http://www.gicinc.org/staff.htm>

In Spring 2019, GIC's Director Karen Firehock was featured in **Women and GIS: Mapping Their Stories** which tells the tales of how 23 women applied themselves and overcame obstacles, using maps, analysis, and geographic information systems (GIS) to contribute to their professions and the world. Buy the book at: <https://www.amazon.com/Women-GIS-Mapping-Their-Stories/dp/1589485289>



**Map and Plan the Natural World with GIS** is a new book written by GIC and published in summer 2019 by Esri Press. The book covers the science behind habitat modeling and describes how to use Geographic Information Systems to determine priorities to conservation across landscapes. This technical book is intended for GIS analysts, providing techniques and tools to use the national habitat model (which GIC built for Esri in 2018) and how to create Green Infrastructure strategies for large landscapes. It describes how to use the national habitat model that GIC helped Esri build using GIC's computer script to identify and rank natural habitats nationwide. Anyone in the U.S. can use the site to map their natural habitats and download the data for their state! The book describes the science behind habitat mapping and how to use data for conservation and restoration! <https://green-infrastructure.esri.com/AssetFinder/index.html>

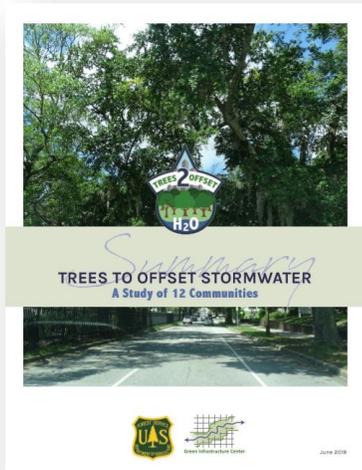


## Design Guide for Forest Connectivity in Developing Landscapes

The common practice of lot-line-to-lot-line clearing for new developments means that sites are stripped of their trees and other vegetation before site development plans are reviewed. To combat this trend, GIC designed two conservation subdivisions in the Carolinas in partnership with local land trusts to show how to conserve large areas of woodlands on lots slated for development. Both sites included affordable housing to allow for equality of access to natural areas regardless of income and conserve more than 50 percent of mature forest and water features. The guide builds on other works on this topic by incorporating modern tools of Geographic Information Systems (GIS) analysis, habitat modeling, and design practices for maximizing forest conservation and connectivity. It focuses not just on the notion of 'open space', which could be a lawn or a plaza, but rather on conserving habitat and restoring it where impaired. The guide provides arguments and steps for true conservation design and technical references for any planner, developer, elected official or citizen to adapt.

**Phyllis E. Galanti Arboretum** GIC built at McGuire Veterans Hospital by GIC was featured in the spring edition of *Virginia Forests Magazine*. Hospital staff, visitors and patients are benefitting from the healing landscape GIC built which will continue to help our veterans heal – up to 30 percent faster – by adding green spaces to their therapy and in-patient experiences. In May 2019, GIC led a field trip to the arboretum to show urban foresters from across the south how to create healing landscapes in their communities.





## Trees to Offset Stormwater: A 12 City Study

In May 2019, GIC completed a study of the role of trees in mitigating stormwater runoff for 12 cities in VA, NC, SC, GA, FL, and AL. The GIC and the states obtained funding from the USFS Southern Region. **Outcomes:**

**Trees and Stormwater Codes Ordinances and Practices Audit Tool:** Ranks cities for policies and practices that increase or decrease runoff and how well they manage their urban forests. Anyone can score their city!

**Trees and Stormwater Calculator Tool:** Requires tree canopy map and adding in data are added such as roads, buildings etc. Then plantable area can be calculated and data can be added to calculate how much water current or future trees take up.

The **12 case study booklets for each city** – get them on line!  
**Summary report** [http://www.gicinc.org/trees\\_stormwater.htm](http://www.gicinc.org/trees_stormwater.htm)

## Resilient Coastal Forests (RCF)

RCF is a new 2-year project launched in 2019 to address challenges faced by coastal forests. This project is mapping the extent and intactness of forest cover for several coastal communities in VA, NC and GA, and developing risk assessments and future forest cover projections, and creating forest resiliency plans for each pilot community. Each coastal study area represents more than 750 square miles and they will serve as pilots to inform coastal planning for all coastal forest communities.

Coastal communities are increasingly impacted by storm surges, temperature extremes, and development pressure, resulting in damage to critical coastal ecosystems. Coastal development typically results in forest loss, exposing shore lines, decreasing critical habitat, and increasing stress on remaining forested areas. Climate change impacts may increase storm severity as well as prolonged droughts leading to greater risk for pest impacts and fire. Stakeholders, elected officials and decision makers will be educated and decision support tools will be developed. Unique strategies for each state will be created to address current and future threats to forest resiliency.



## Other new projects launched in 2019 and on-going:

**Boynton Beach FL Canopy Mapping and Ecosystem Services** – mapping planting areas and future needs.

**Canopy Coaching** – Teaching five communities in South Carolina how to map their own tree canopies and set goals.

**Tree Campaign Guide** – A guide to launching community planting campaigns for the Southern U.S. with demonstration sites!

**Tree Inventory Tools** – A grant to teach states how to use tree inventory software with 5 free software licenses for each state.

**Strategic Planning** – Assisting state agencies with stakeholder input for Forest Action Plans

**Toolkit for Forest Policies SC** – Tools for local governments to include forests in comprehensive planning and policies.

Want to learn more and support our work? Learn about our completed projects at <http://www.gicinc.org/projects.htm>. Support our work -- all donations are 100% tax deductible and help communities. Donate at <http://www.gicinc.org/donate.htm> Contact: GIC, 440 Premier Circle, Suite 220, Charlottesville VA 22901 (434)244-0322