

An aerial photograph of a vast landscape at sunset. The foreground is dominated by a dense, green forest. Beyond the forest, there are rolling hills and fields, some of which appear to be agricultural. The sun is low on the horizon, creating a warm orange and yellow glow that transitions into a deep blue sky with scattered clouds. The overall scene is peaceful and expansive.

UF

Center for Landscape
Conservation Planning
UNIVERSITY *of* FLORIDA

2024

A YEAR
OF RESULTS



2024 A YEAR OF RESULTS

DIRECTOR'S LETTER	3
<hr/>	
CONSERVATION PLANNING	
<hr/>	
Florida Wildlife Corridor	5
Metrics for Climate Smart Corridor Planning	5
Map of the Florida Wildlife Corridor	6
Future Land Use	7
GREEN INFRASTRUCTURE DESIGN	
<hr/>	
Linear Infrastructure Ecology	9
Wildlife-vehicle Collision Hotspots	11
Community and Recreational Green Infrastructure	13
LAND PROTECTION	
<hr/>	
Science Support for Land Protection	15
Peace River Valley Initiative	15
Aquatic Preserve Watersheds	15
Rural and Family Lands Protection Program	15
OUTREACH & ENGAGEMENT	
<hr/>	
Public Webinars and Workshops	17
Online Tools and Website	18
Exhibitions	20

A photograph of a forest path. The path is a narrow, dirt trail winding through a dense forest. The trees are tall and slender, with thick trunks. The ground is covered in fallen leaves and ferns. The lighting is bright, suggesting a sunny day. The overall scene is lush and green.

DIRECTOR'S LETTER

PHOTO COURTESY OF GEORGE MCKENZIE/WILDPATH



Each year I see progress and note strides in the attainment of our long-range goals, and this year was especially momentous. The Florida State Legislature renewed its support for the Florida Wildlife Corridor by committing additional annual funding for land conservation and affirming the Center's role in providing science-based support for strategic land protection decisions. The Center also continued to build new programs in green infrastructure design, provided science-based support for land protection work, expanded its suite of GIS planning tools for land protection in the Corridor, and engaged students and the public throughout the state. And the Center played a crucial role, under Department Chair Dr. Jules Bruck, in the Department of Landscape Architecture's successful reaccreditation. The accreditation team affirmed the importance of the Center for achieving the education, research, and service missions of our Department and College. The Center is also expanding our academic reach, with multiple published white papers and journal articles, and a new book on Florida as a model for regional conservation planning due to be released by the University Press of Florida.

Our partnership with the Florida Conservation Group (FCG) for applied land protection is still strong and flourishing. This year with our support, FCG worked with ranchers and other private landowners to protect more than 12,000 acres of land, bring an additional 10,000 acres to the Florida Cabinet for approval, and submit more than 25,000 acres for inclusion in Florida Forever and Agricultural Conservation Easement Programs. We also worked with FCG staff to advocate for more Florida Forever, Rural and Family Lands, and federal conservation land protection funding, and to continue to foster a strong relationship between conservation partners and the agricultural community.

While the Center expands, Florida continues to grow, with almost 1,000 new residents moving to the state every day. This growth in human population could result in significant rural land loss without proactive land protection and careful land use planning. It has never been a more important time for our work with conservation partners throughout the state to protect Florida's wildlife, water, and way of life. The Center is committed to using the best science to support strategic land protection to achieve our state's wildlife, water, and ecosystem service conservation goals.

As always, your support of the Center is appreciated. Our partnerships with you are essential for ensuring a prosperous, productive, and resilient Florida future. Please reach out to us whenever you think there are additional opportunities to protect Florida's green infrastructure and natural capital.

Tom Hactor, Ph.D., *Director*

YOUR SUPPORT IS CRITICAL!

The future of Florida's land and wildlife relies on external funding.

Scan this QR code
to donate today.



You can also visit
<https://conservation.dcp.ufl.edu/support/>

CONSERVATION PLANNING

PHOTO COURTESY OF LAUREN YOHO/WILDPATH



FLORIDA WILDLIFE CORRIDOR

In 2024, the Center continued its work providing the science and planning support needed to protect the Florida Wildlife Corridor and other conservation priorities in Florida and the southeastern United States. This included updates to the **Florida Ecological Greenways Network (FEGN)** and **Critical Lands and Waters Identification Project (CLIP)** databases, core datasets used to inform land protection planning in Florida. The Florida Wildlife Corridor makes up the top three highest priorities in the FEGN, and annual updates are essential to incorporate changes in land use and identify strategic protection priorities (almost 8 million acres are currently unprotected in the Corridor). The Center works with state, federal, local, and non-governmental organizations to provide science-based information that supports these land protection decisions.



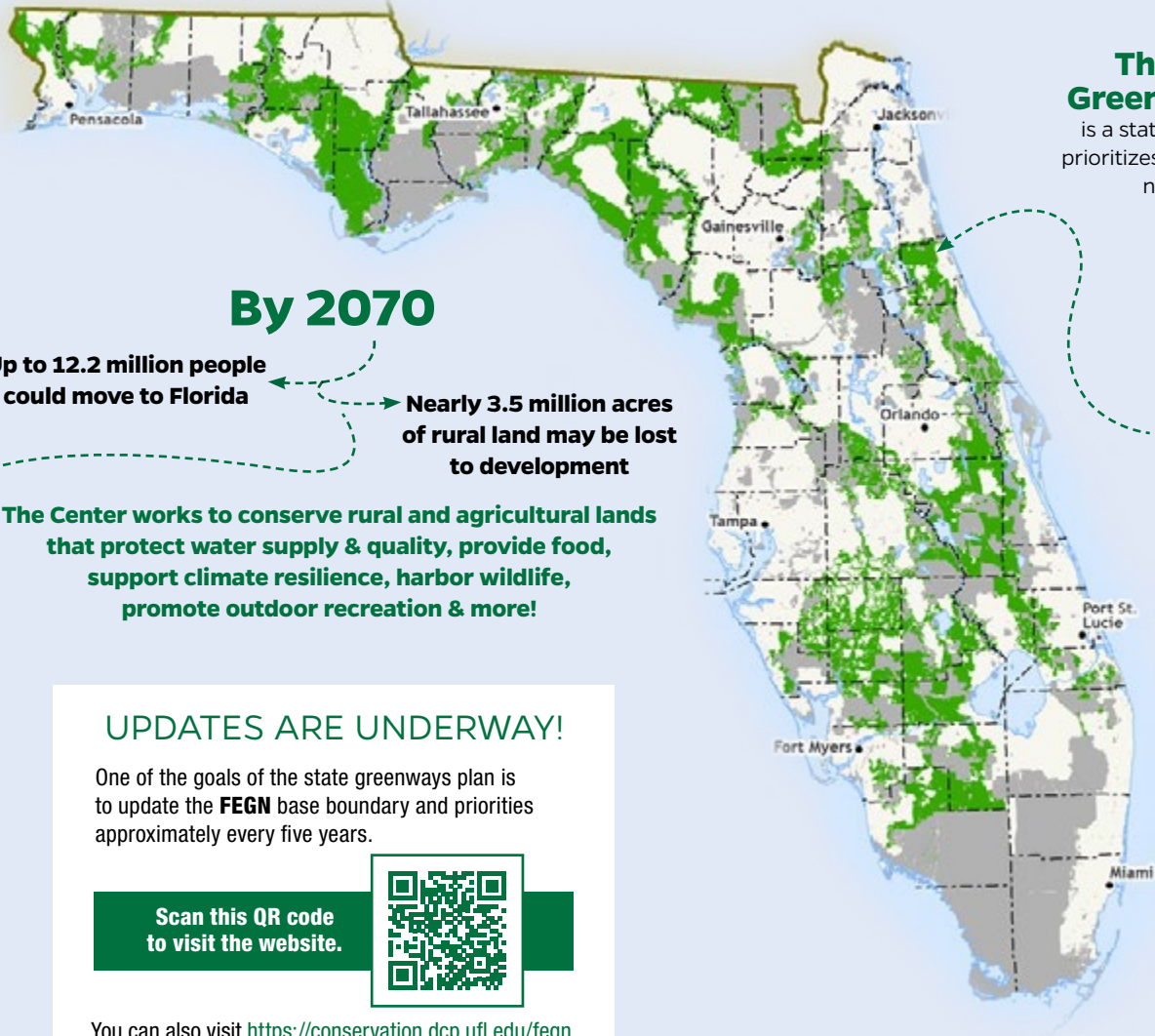
METRICS FOR RESILIENT CORRIDOR PLANNING

The Center is also working to develop new metrics for resiliency planning within the Florida Wildlife Corridor. These metrics consider current and future environmental conditions, focusing on strategies like habitat connectivity and climate refugia to help species adapt to future change. Despite its flat terrain and sea level rise vulnerability, Florida's unique climatic stability has the ability to continue supporting biodiversity amidst changing conditions.

As part of this, the Center worked with partners on a paper titled "**The Florida Wildlife Corridor and Climate Change: Managing Florida's Natural and Human Landscapes for Prosperity and Resilience,**" outlining the role of land conservation in the Corridor in future resiliency planning..

A peer-reviewed paper, "**Refining the Florida Ecological Greenways Network for Improved Landscape Planning and Conservation Prioritization,**" has been published with a Center-led book, *Landscape Conservation Planning in Florida: History and Science*, also submitted to University Press of Florida.

FLORIDA WILDLIFE CORRIDOR



The Florida Ecological Greenways Network (FEGN)

is a statewide database that identifies and prioritizes a functionally connected ecological network of public and private conservation lands.

Part of the **FEGN**, the green areas on this map highlight opportunity lands for conservation in the **Florida Wildlife Corridor**

By 2070

Up to 12.2 million people could move to Florida

Nearly 3.5 million acres of rural land may be lost to development

The Center works to conserve rural and agricultural lands that protect water supply & quality, provide food, support climate resilience, harbor wildlife, promote outdoor recreation & more!

UPDATES ARE UNDERWAY!

One of the goals of the state greenways plan is to update the **FEGN** base boundary and priorities approximately every five years.

Scan this QR code to visit the website.



You can also visit <https://conservation.dcp.ufl.edu/fegn>



The Agriculture 2040/2070 Project focuses on the future of agriculture and importance of good land use planning to maintain agricultural production and the services it provides in Florida.

FUTURE LAND USE

The Center worked with multiple partners to focus on the resiliency of Florida communities and agriculture as development pressures and population growth continue in Florida. This included working at the statewide level with the Florida Smart Agriculture Work Group, Solutions for the Land, Florida Conservation Group, and others to support landowner, industry group, and agency partners working to maintain Florida’s agricultural industries -and to provide science-based information on the conservation value of agriculture in Florida for climate resilience, wildlife, and water resources.

Center staff also worked with 1000 Friends of Florida, the UF Center for Coastal Solutions and others in the Big Bend, panhandle, and southeast regions of Florida to conduct county-level assessments of future land use change and potential impacts on watersheds and agriculture land uses. This work makes it clear that careful land use and development planning is essential for protecting our water resources, agriculture, and way of life.

Working with Urban3, 1000 Friends of Florida, and Live Wildly we also developed a publication, **“The Economics of Development,”** which makes the economic case for smart urban planning. A companion publication is now underway on the economics of rural land use and conservation.

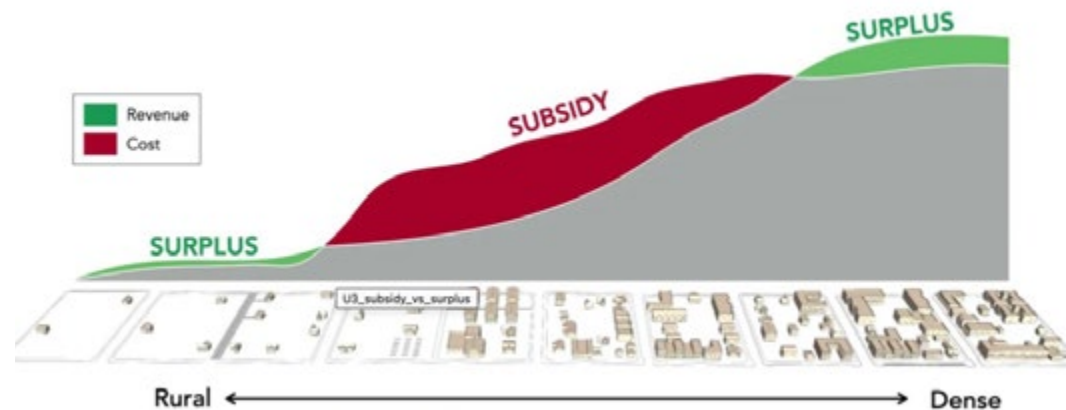
STAY IN THE KNOW!

The Agriculture 2040/2070 Project sheds light on the significant threats facing Florida lands, and what can be done to lessen impacts over the coming decades.

Scan this QR code to visit the website.



You can also visit <https://1000fof.org/ag2040-2070>



This graph demonstrates the economic benefits of good urban planning and smart growth, conserving rural landscapes and saving local government costs. It shows that sprawling and suburban development results in higher long-term costs for communities.



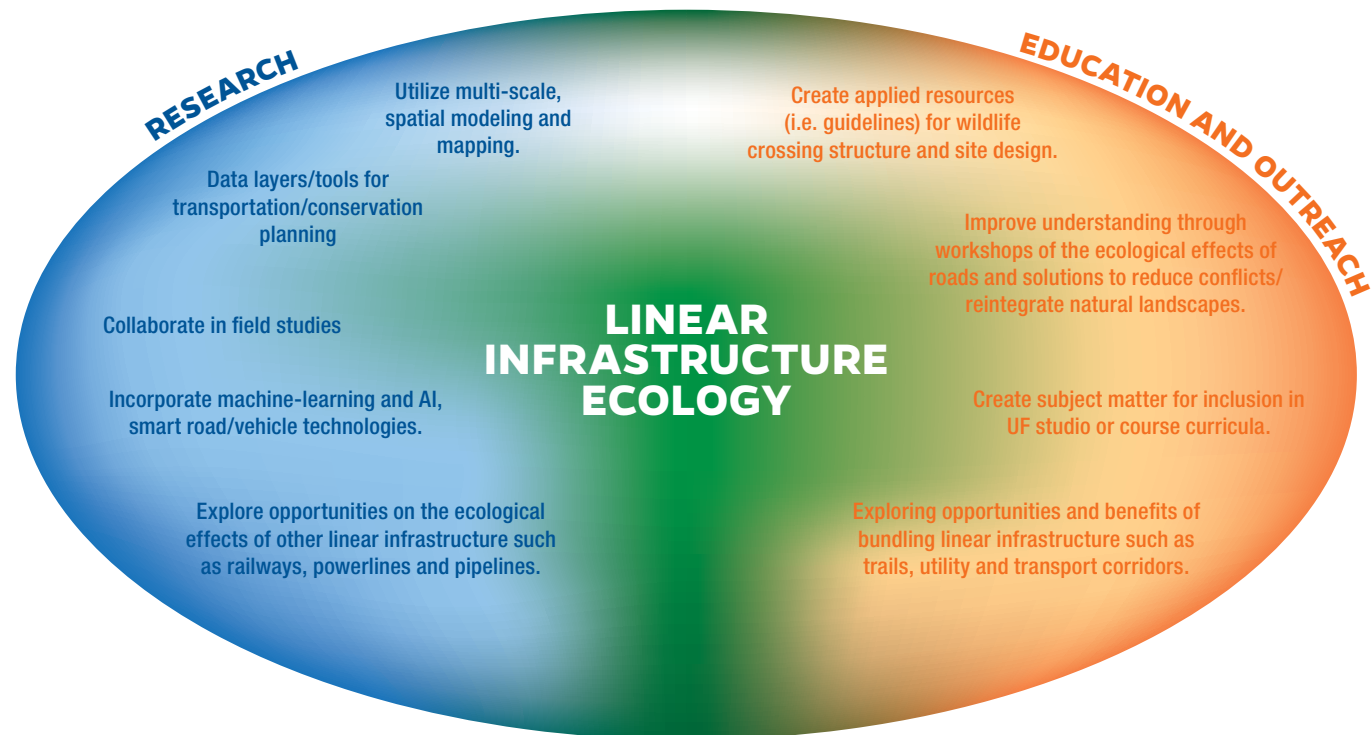
GREEN INFRASTRUCTURE DESIGN

PHOTO COURTESY OF JASON GULLEY/WILDPATH



LINEAR INFRASTRUCTURE ECOLOGY

Beginning In 2024, the Center brought Dr. Daniel Smith onto the staff to more thoroughly explore the effects of linear infrastructure on conservation objectives and planning. The Center continues to integrate conservation and transportation planning through partnerships with the Florida Department of Transportation (FDOT), other state agencies, and stakeholder groups. The diagram below outlines the research, education, and outreach elements of this initiative.



In 2024 the Center completed two significant planning resources, the **Large Animal-Vehicle Collision Hotspots Model** for the Florida Wildlife Corridor and the **Wildlife Crossing Structure Planning and Design Guide**, in addition to incorporating transportation more broadly into Corridor conservation prioritization and planning efforts.

The **Collision Hotspots Model** was based on existing data for animal-vehicle collisions and identified road segments that had a significantly higher than random proportion of observed collisions. The results identified 246 total hotspots (see map on p. 11). **The Wildlife Crossing Design Guide** provides a framework, and descriptions of the elements associated with planning and design of wildlife crossings. Key elements include identifying target species, identifying and prioritizing locations and need, structure and site design parameters, and long-term management to maintain function and effectiveness.

Ongoing work includes refining a machine learning tool developed to process and manage large databases of trail camera imagery (many thousands to millions) of wildlife activity in corridors and crossing structures (see images on p. 11). This data is critical for improving our understanding of wildlife activity and behavior in corridor bottlenecks and wildlife crossing structures.

An additional ongoing effort is an inventory of existing bridges and culverts that function as wildlife crossing structures and to develop a prioritization process that ranks new wildlife crossing structure needs and locations.



WILDLIFE-VEHICLE COLLISION HOTSPOTS



Bobcat using a wildlife underpass.



Object detection in YoloV5 identifies 2 panthers in a single image.

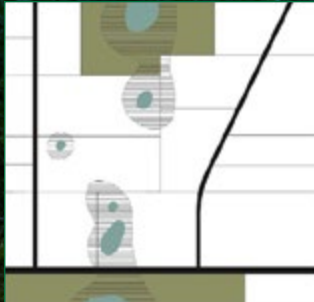
This year the Center obtained funding from FDOT to update and refine the statewide and Florida Wildlife Corridor, large and small animal-vehicle collision hotspots models and conduct other research to deliver planning resources aimed at addressing highway-wildlife conflicts and restoring functional landscape connectivity.

Additional support from the fStop Foundation and Live Wildly fund work associated with the planning and design of critical linkages (unprotected gaps) in the Florida Wildlife Corridor. There are many issues around the protection and function of these narrow, but necessary connections, among them is the

potential need to co-locate trails and greenway networks and address the influence of roadways and negative edge effects. How do we design these critical linkages to optimize function for wildlife and people?

Coordinating Conservation Subdivision (CSD) Connectivity

The Center is working with partners to provide science-based information on Corridor-compatible development design and location.



Parcels within zoning that incentivizes CSDs.

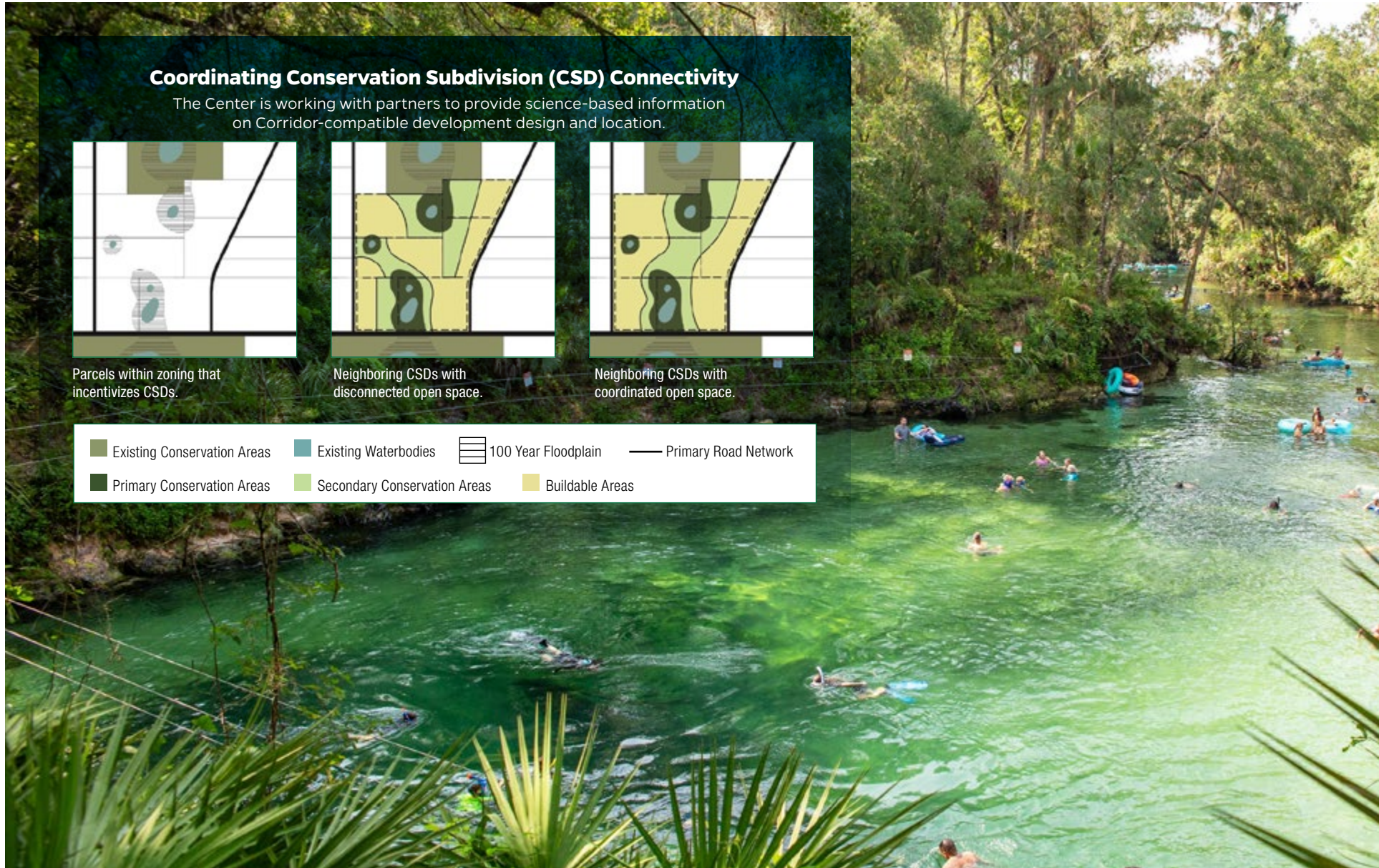


Neighboring CSDs with disconnected open space.



Neighboring CSDs with coordinated open space.

Existing Conservation Areas	Existing Waterbodies	100 Year Floodplain	Primary Road Network
Primary Conservation Areas	Secondary Conservation Areas	Buildable Areas	





COMMUNITY AND RECREATIONAL GREEN INFRASTRUCTURE

The Center continues to build an initiative focused on green infrastructure design and planning at the community and rural-urban interface.

Center staff are active members of the Florida Wildlife Corridor Foundation's Corridor Compatible Communities Collaboration Team, providing science-based guidance on criteria for the location and design of future development to protect the Corridor. The Center is also a member of the Foundation's Trails Collaboration Team and is working with the team to identify opportunities and recommendations for aligning recreational trail and conservation goals, including possible co-location of trail and conservation priorities. For more information, visit conservation.dcp.ufl.edu/ugi-initiative.



Testing public preference for climate-wise landscapes with faculty in CLUE.

The Community and Recreational Green Infrastructure Initiative engages academic, community, and agency partners to conduct applied research on the role of green infrastructure in increasing resiliency, providing ecosystem services, and maximizing ecological function in both developed landscapes and the urban-rural interface. Our particular focus is making the connection between green infrastructure planning and design at the community scale - and broader state and regional landscape conservation planning priorities including the Florida Wildlife Corridor.

In 2024, Center staff continued their partnership with the University of Florida's Historic Preservation and Florida Resilient Cities programs supporting community-scale resilient planning in Jacksonville, Cedar Key, Port St. Joe, St. Augustine, and Lee County.

We also continued work with the U.S. Forest Service, mentoring students engaged in springshed design and planning within the Ocala National Forest and assisting staff at the Cumberland Island National Seashore to develop trail suitability and wayfinding plans.

As part of our Climate-wise Landscapes Initiative, the Center has been working in partnership with the UF/IFAS Center for Land Use Efficiency (CLUE) to test public preference for landscapes that use an ecologically-focused extension of the Florida Friendly Landscape principles. During the first phase of the project, we designed and planted three landscapes at the UF/IFAS Tree Unit. During the second phase of the project, we invited the public to the plots to view and evaluate the landscapes. For more information on this and related projects, please visit: <https://dcp.ufl.edu/landscapechange>.

LAND PROTECTION



PHOTO COURTESY OF CARLTON WARD JR./WILDPATH



SCIENCE SUPPORT FOR LAND PROTECTION

The Center continued its partnership in 2024 with the Florida Conservation Group (FCG) to provide direct support for land protection. During the past year, FCG worked with ranchers and other private landowners to protect more than **12,000 acres** of land; bring **10,000 acres** to the Florida Cabinet for approval; submit more than **25,000 acres** for inclusion in Florida Forever, Natural Resources Conservation Services' Agricultural Conservation Easement programs, and the Florida Fish and Wildlife Conservation Commission's Florida Panther Payment for Ecosystem Services Program; and prepare an additional **49,000 acres** for submission to the Rural Family and Lands Protection Program in 2025.

PEACE RIVER VALLEY INITIATIVE

The Center has a long-standing partnership with the Florida Conservation Group (FCG) to support their Peace River Valley Initiative. The Peace River watershed has critical ecological, hydrological and economic significance, yet ranks among the watersheds with the lowest percentage of protected land in Florida. The Center provides GIS and analysis support for the Initiative, ensuring that land protection decisions are based on the best available science. To date, FCG has protected more than **37,000 acres** in the Peace River Watershed and was recently selected for the Natural Resources Conservation Services' (NRCS) Regional Conservation Partnership Program (RCPP) that will provide more than \$21 million in funding to enhance FCG's ongoing efforts in the region.

AQUATIC PRESERVE WATERSHEDS

The Center is collaborating with the Florida Department of Environmental Protection's Coastal Management Program to develop information for scoring land protection proposals based on their benefit to aquatic preserves. This includes an analysis of sea level rise and priorities for inland/upland migration for focal species within each watershed. A goal is to provide these criteria to state, local, and other agency partners to assist in developing conservation proposals and evaluating and ranking existing land protection projects.

RURAL AND FAMILY LANDS PROTECTION PROGRAM

The Center is also partnering with the Florida Department of Agriculture and Consumer Services (FDACS) to develop science-based criteria for evaluation of candidates for Rural and Family Lands Protection Program funding. At the request of FDACS staff, the Center has also contracted with Common Ground Ecology to conduct statewide site evaluations of candidate projects.



A photograph of a blue bird perched on a branch of a green bush. The bird is facing right and has a long tail. The background is a soft-focus green landscape with a tree trunk visible on the left. The text 'OUTREACH & ENGAGEMENT' is overlaid on the left side of the image in white, sans-serif font.

OUTREACH & ENGAGEMENT

PHOTO COURTESY OF LAUREN YOHO/WILDPATH



PUBLIC WEBINARS AND WORKSHOPS

The Center and 1000 Friends of Florida partnered with the Florida Conservation Group, Live Wildly, and Florida Wildlife Corridor Foundation to produce a four-part seminar series: **Planning to Protect the Florida Wildlife Corridor**. The webinars brought together a series of leaders to share community planning and land conservation strategies to protect the corridor. The Center and 1000 Friends also hosted a webinar to release the Agriculture 2040/2070 Project results. Online webinars attracted nearly 4,000 attendees generating 25 primary articles across Florida with a conservative reach of more than 4.2 million. To access the broadcasts and PowerPoint presentations, scan the QR link on this page.

Center staff also participated in multiple public meetings, presentations, advisory, and work groups - including the Corridor Collaboration Teams hosted by the Florida Wildlife Corridor Foundation on solar energy facilities and land use, corridor compatible communities, and trails - and led county-level workshops in coordination with 1000 Friends of Florida, the Foundation, and others focused on future land use and Corridor protection.

The Center is working with partners now to plan a new set of webinars for 2025. This includes sessions focused on the importance of good urban planning, challenges and opportunities for Florida's agricultural lands, and planning within the rural-urban interface. More information and registration are available here: <https://1000fof.org/upcoming-webinars/> or via the QR code on this page.

Center staff also continued to speak at state and national conferences highlighting the Center's wildlife corridor and green infrastructure protection work and conservation needs in Florida.



Center staff members at the Florida State Capitol for Florida Wildlife Corridor Day on February 12, 2024. Center staff connected with Sen. Jason Brodeur, Rep. Keith Truenow, and others critical to the passage of the Florida Wildlife Corridor Act in 2021.

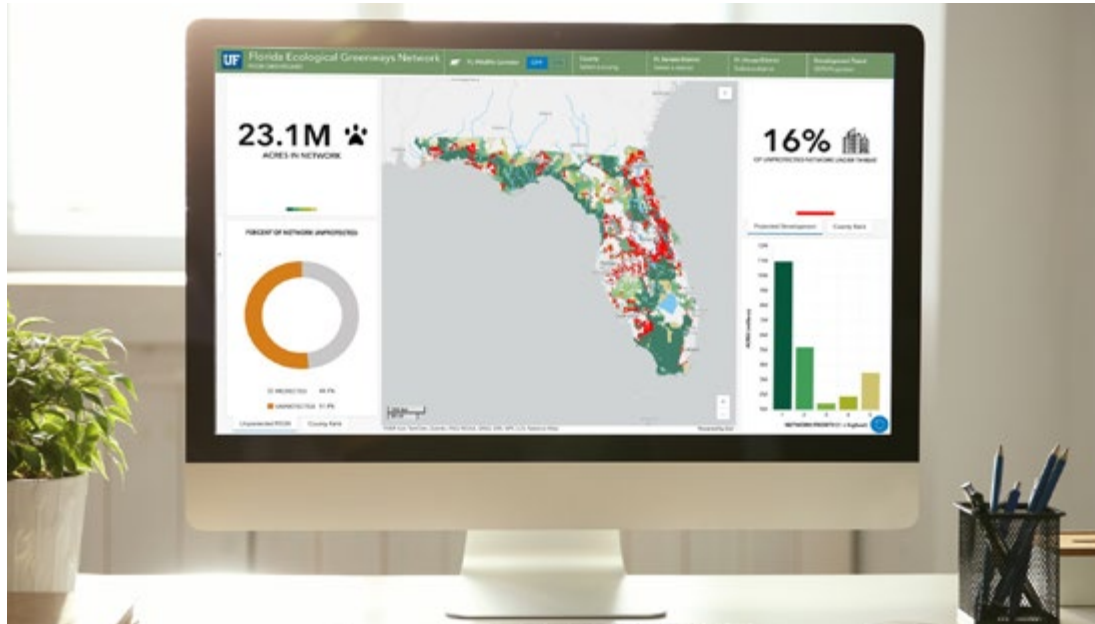
STAY IN THE KNOW!

Join **1000 Friends of Florida** for FREE monthly webinars on planning, development and growth issues facing Florida.

Scan this QR code for more information.



You can also visit <https://1000fof.org/upcoming-webinars/>



ONLINE TOOLS AND WEBSITE

Online Tools

The Center continues to develop online tools and viewers to support planning and conservation efforts throughout Florida and especially around the Florida Wildlife Corridor. These include an [FEGN Map Viewer](#), designed to provide users access to the prioritized statewide Florida Ecological Greenways Network. Together with the FEGN (2021 edition) data layer, users will find existing and proposed conservation lands, growth projections, political boundaries, sea level rise projections, and other reference layers.

The Center has also developed an [FEGN Dashboard](#) to allow users to explore specific opportunities and challenges associated with FEGN protection. Users can explore development trends, regional statistics for protected and unprotected land, and more.

This year the Center expects to release an additional planning tool, the Florida Ecological Connectivity Planning Viewer (or EcoCon), which will allow for more detailed analyses of specific protection opportunities, and continues to coordinate with the Florida Natural Areas Inventory (FNAI) staff and other partners on related viewers to track land protection within the Corridor.

STAY IN THE KNOW!

The Florida Ecological Greenways Network (FEGN) is a statewide database that identifies and prioritizes a functionally connected statewide ecological network of public and private conservation lands.

Scan this QR code
for more
information.



You can also visit
<https://conservation.dcp.ufl.edu/fegn/>

STAFF HIGHLIGHT

Center staff participated in both the 2024 Gator Day hosted by the University of Florida and Florida Wildlife Corridor Day at the Florida State Capitol. Center staff were recognized for their primary role in developing the science behind the Florida Wildlife Corridor.



Digital Murals

The Center recognizes art as a powerful tool to convey science-related information and has partnered with Kelly Quinn of Canvas of the Wild to develop digital murals that capture the significance and unique characteristics of critical linkages within the Florida Ecological Greenway Network and Florida Wildlife Corridor. There are 10 critical linkages within the Corridor, each essential for allowing wildlife movement throughout the state. Murals from Canvas of the Wild will complement other online resources, including the Center's website, as tools to educate the public, planners, and stakeholders about wildlife corridors, the FEGN, and their importance for protecting Florida's green infrastructure.

To learn more about the FEGN critical linkages, scan the QR code or visit the website on page 18.



EXHIBITIONS

Sanibel Island

Center staff helped Dr. Jules Bruck develop an exhibition titled, “Sea Change: The Legacy and Future of Sanibel Island’s 50-year Plan.” It showcased the work of renowned landscape architect Anne Whiston Spirn on Sanibel Island, which was one of the first community plans designed in accordance with principles of landscape ecology. Together the Sanibel community chose to maintain 70% of the island as conservation land and was recognized with a National Planning Landmark Award from the American Planning Association for their landscape conservation focus. A StoryMap is currently in progress using maps, periodicals, and data from this show. Visit this link to see Anne Whiston Spirn's keynote address: <https://www.youtube.com/watch?v=QYF0sljNm6k>

Wild Waters

This year, the Center began organizing an in-person exhibition utilizing the Vickers’ Collection of Florida-themed landscape artwork from UF’s Harn Museum of Art (see image). The show is slated to open in September of 2025 at the Governor’s House in St. Augustine and will incorporate public talks given by our landscape and wildlife biology experts at the Center, read-a-longs, and exhibition walk-throughs to explain the connections of the art displayed to landscape conservation work at the Center and why this work matters.

Then and Now

In addition, the Vickers’ Collection will be featured with selected photographs by Carlton Ward Jr. of Wildpath in an online exhibition titled “Then and Now.” Be sure to watch our social media posts for information and follow us on Instagram for information about additional future exhibitions: [@ourfloridalandscape_UF](https://www.instagram.com/ourfloridalandscape_UF)

Education Initiative

The Center is working with the Director of Landscape Architecture and Planning, Dr. Jules Bruck and other faculty to create a graduate certificate in “Cultural Landscapes and Conservation” including applied opportunities for students to work on Center projects. Through lectures, site visits, and applied engagement, students will focus on understanding past foundations and addressing future options that will support a more sustainable landscape. The Center also mentored Ph.D., graduate, and undergraduate students in 2024, and was engaged in teaching multiple courses in the College of Design, Construction and Planning. See some of our students highlighted here: <https://conservation.dcp.ufl.edu/student-engagement>.



George Bickerstaff, *Mystic Pool*, oil on canvas, no date, Harn Museum of Art, The Florida Art Collection, Gift of Samuel H. and Roberta T. Vickers, 2020.18.985.



CENTER STAFF

Thomas Hoctor, Ph.D.
Director

Michael Volk, MLA
Associate Director

Eve Bohnett, Ph.D.
Ecological Connectivity & Ecosystem
Service Modeling Coordinator

Tricia Kyzar, Ph.D.
Water Resource Analyst,
Research & Project Manager,
UF Center for Coastal Solutions

Reed Noss, Ph.D.
Conservation Science Coordinator
Chief Scientist, Conservation Science, Inc.

Dan Farrah, Ph.D.
Development & Land Use Analyst

Eleanor Laughlin, Ph.D.
Florida Wildlife Corridor Art
& Museum Exhibition Coordinator

Michael O'Brien, MLA, MS
GIS Manager

Crystal Gagne, BS
GIS Analyst

Tracy Shubin, BA
GIS Analyst

Asena Goren, Ph.D.
Postdoctoral Researcher

Julie Morris, MS
Conservation Policy & Programs Coordinator
Executive Director,
Florida Conservation Group

Dan Smith, Ph.D.
Transportation Infrastructure Retrofitting Analyst

Isabella Guttuso Browne, MLA
Urban & Recreational Green Infrastructure Coordinator

Belinda B. Nettles, Ph.D.
Land Protection Planning Coordinator

Elizabeth Thompson, MURP
GIS Analyst

STUDENTS



Sarah Lockhart
Ph.D. Candidate
Networking & Communications Analyst
Research Assistant



Derya Yesilkusak
Ph.D. Student
Research Assistant



Veronica Cancio Amadeo
Masters of Landscape
Architecture Student
Research Assistant




Stephanie Medo
Interdisciplinary Ecology Student
Research Assistant




Alessandra Zanardi
Sustainability and the Built
Environment Student
Undergraduate Research Assistant

An aerial photograph of a vast landscape at sunset. The sun is a bright orange orb on the horizon, casting a warm glow across the sky and the land below. The sky is a mix of deep blues and oranges, with scattered dark clouds. The landscape is a mix of green fields, dark green forests, and winding waterways. The overall mood is serene and natural.

UF | Center for Landscape
Conservation Planning
UNIVERSITY *of* FLORIDA

 conservation.dcp.ufl.edu

 [/UFCLCP](https://www.facebook.com/UFCLCP)

 [/school/ufclcp](https://www.institutional.com/school/ufclcp)

 [/ourfloridalandscape_uf](https://www.instagram.com/ourfloridalandscape_uf)