The SECAS Third Thursday Web Forum

The Georgia Low Impact Solar Siting Tool: Connecting the Blueprint with solar-focused data to support low-impact solar development

8-18-2022

Agenda

- Introduction
- Monthly topic
- Q&A and discussion
- Preview of next webinar
- Staff updates

The Georgia Low Impact Solar Siting Tool: Connecting the Blueprint with solar-focused data to support low-impact solar development

Amy Gutierrez, The Nature Conservancy

8-18-2022

The Georgia Low Impact Solar Siting Tool (GA LISST)

Amy Gutierrez
Climate and Lands Coordinator
The Nature Conservancy - Georgia

The Nature Conservancy

Low-Impact Solar Siting in Georgia

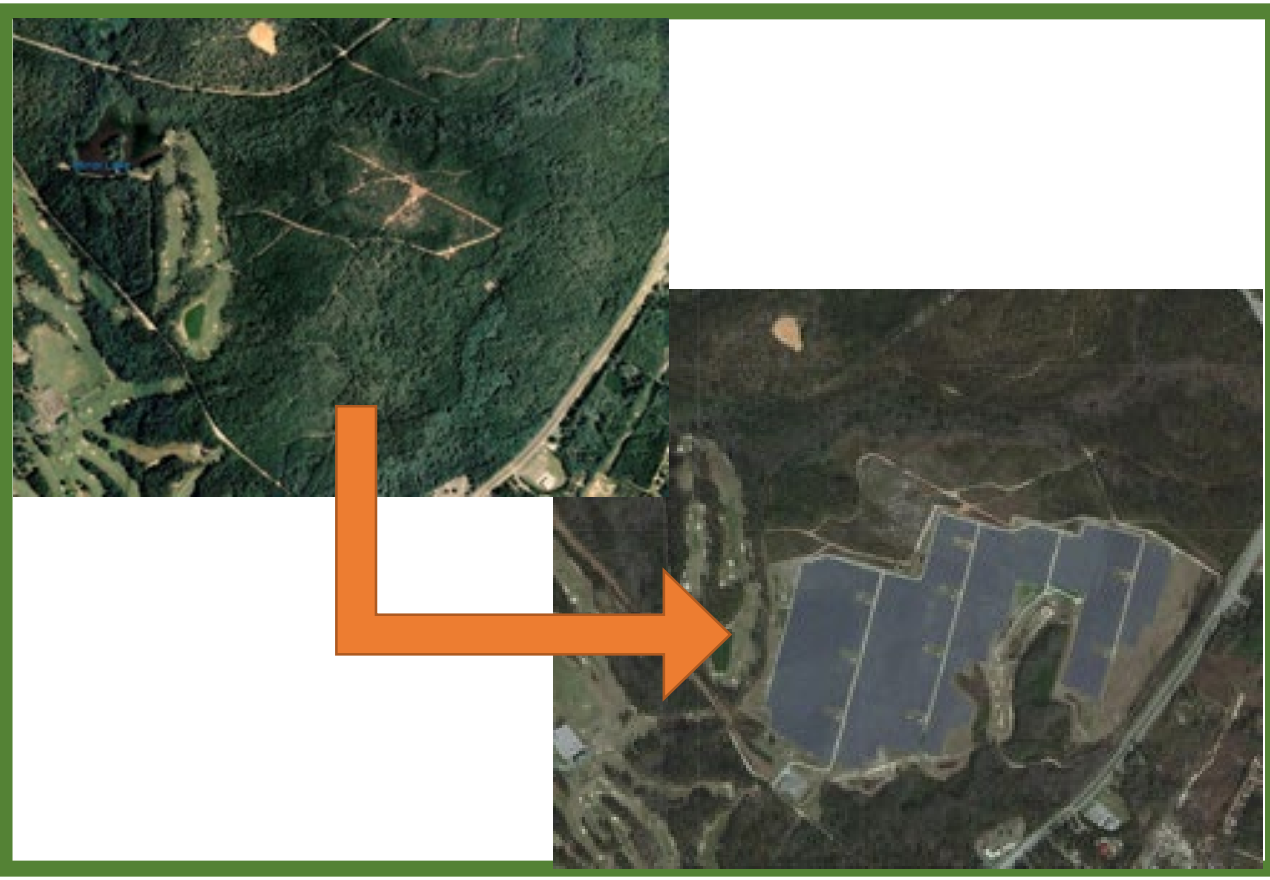
Large scale solar is an important solution to decarbonize at an impactful scale.

….but….

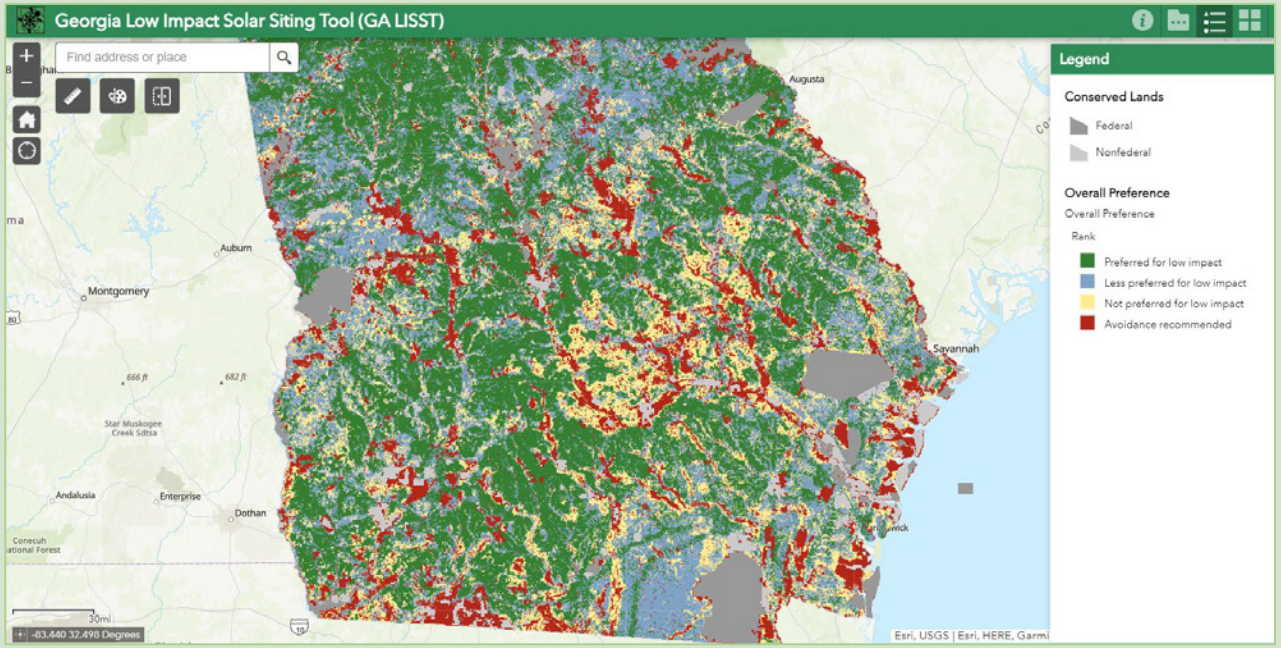
Significant land is required for this scale of renewable energy generation.

The Nature Conservancy (TNC) supports smart solar development with a proactive focus on minimizing habitat impacts.

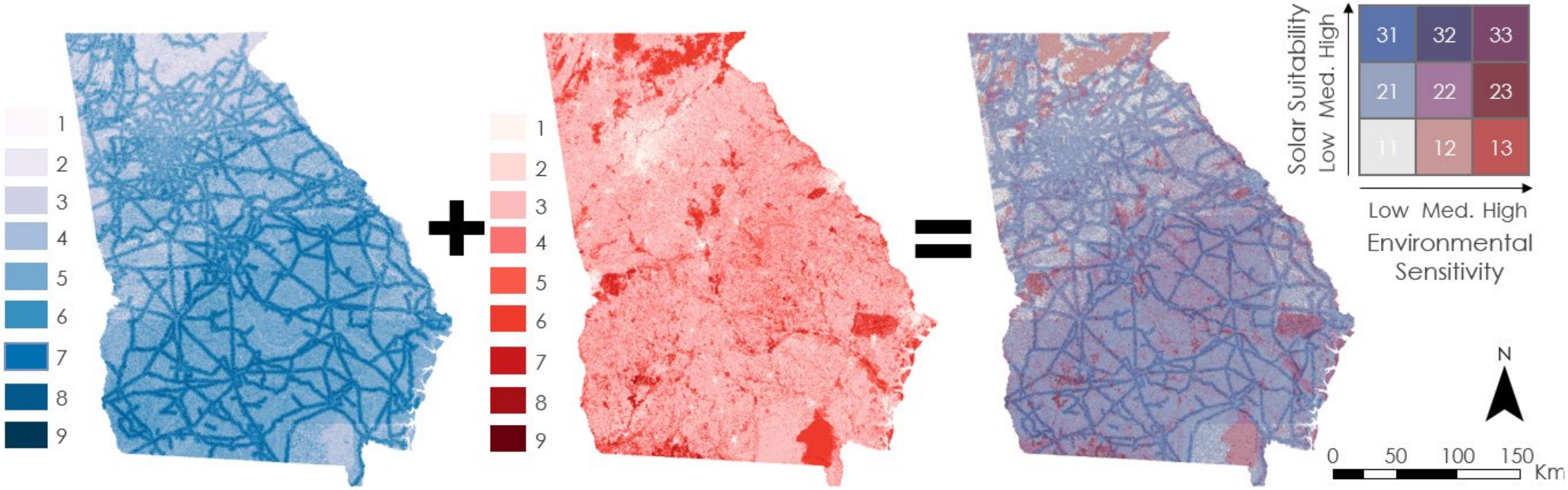
How clean is Georgia's "clean" energy?



GA LISST: the birth of an acronym

How it started (2017)	How it's going (2021)
 Why did the gopher tortoise cross the road?	The Georgia Low Impact Solar Siting Tool (GA LISST) is launched! 

Land Use Conflict Identification Strategy (LUCIS)



Solar Suitability + Environmental Sensitivity = Bivariate Conflict Map

Value = 1 2

- 2 → Environmental Score
- 1 → Solar Score

GA LISST: the early year

March 2021:

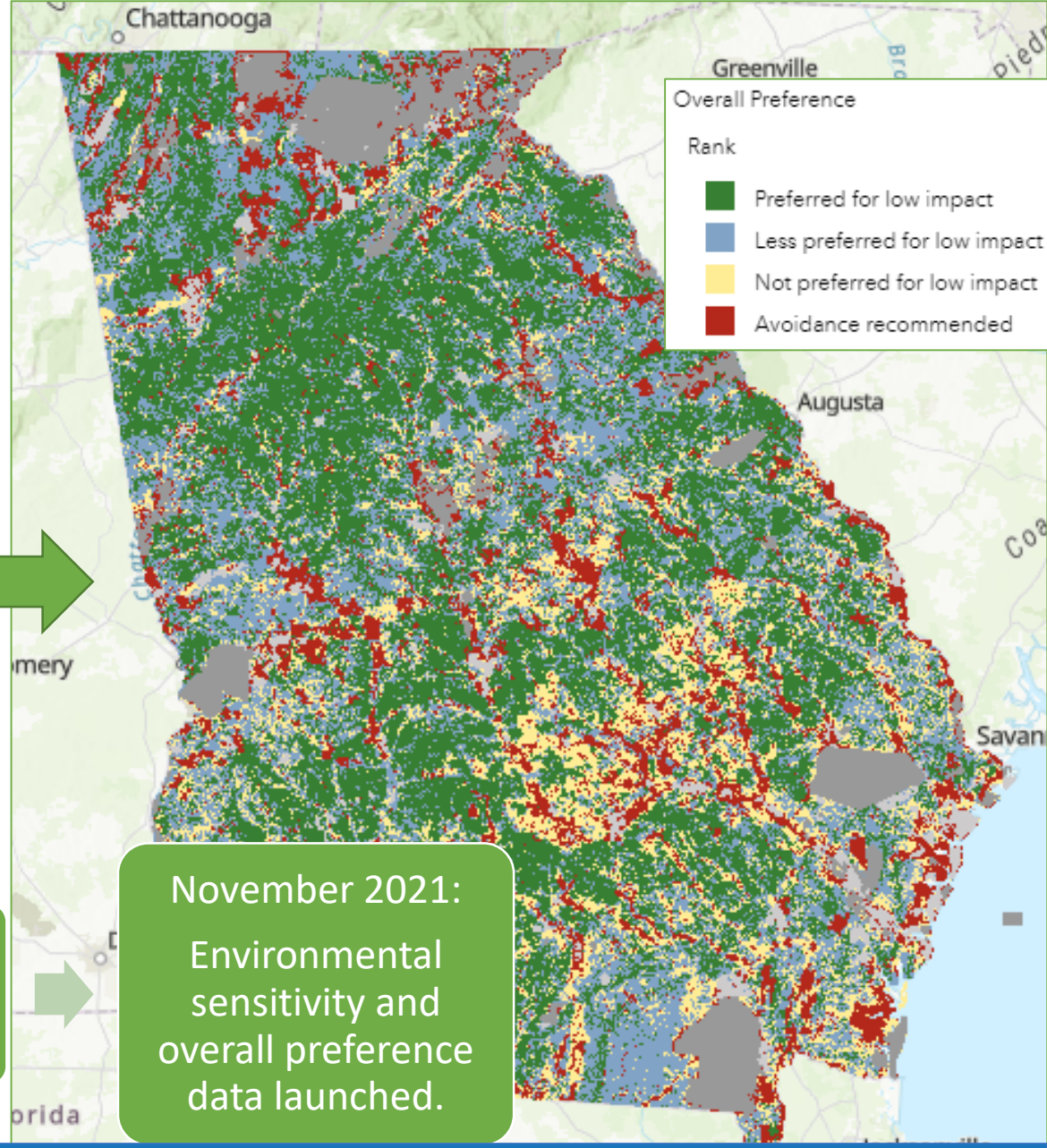
Publicly available web app launched.

Data issue identified.

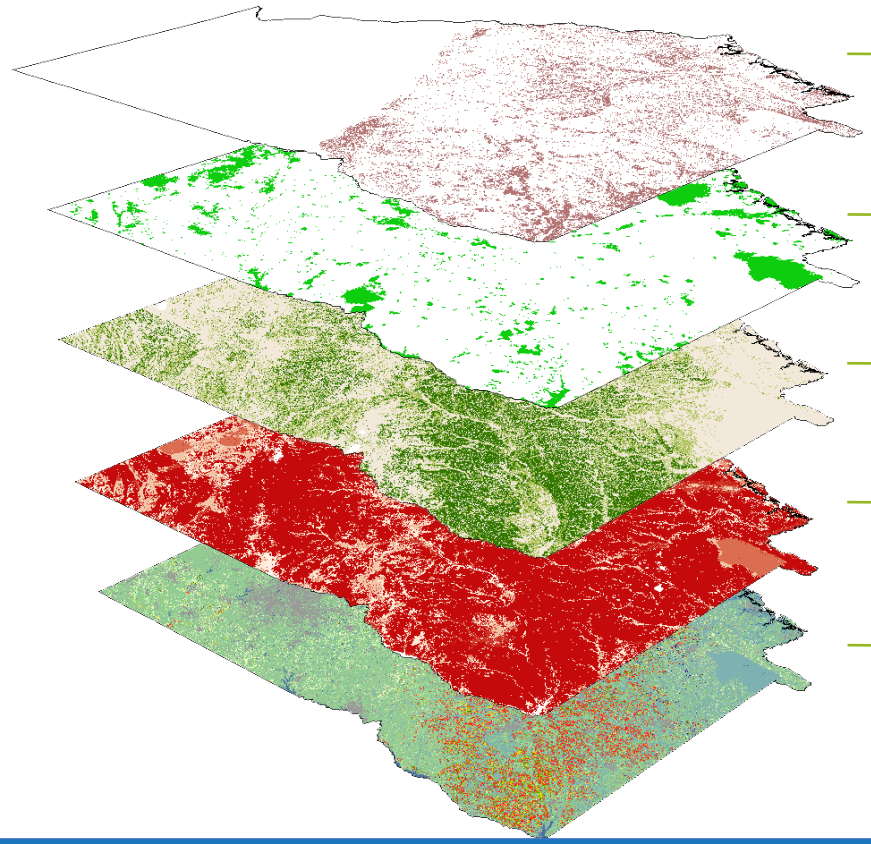
Improvise, Adapt, Overcome!

November 2021:

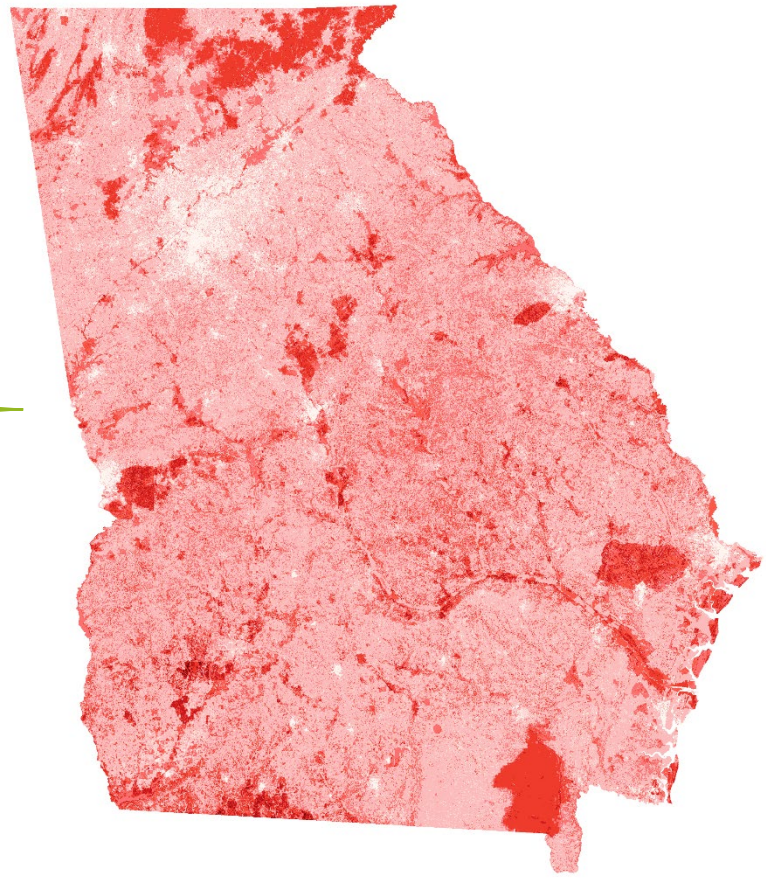
Environmental sensitivity and overall preference data launched.



Environmental Sensitivity Analysis: Take One



Input Raster	Weight of Influence
Gopher Tortoise Habitats	20%
GADNR Protected/ Conservation Lands	20%
Prime Farmland	20%
Landscape Connectivity	20%
LULC	20%



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Environmental Sensitivity Analysis: Take Two

1. Maintain weighted analysis?

- No. Weighted analysis diluted highest rankings for any given criteria.
  - **Solution**: retain highest rankings at each location based on additive ranked datasets.

2. Simplify process?

- Yes! Initial methodology required manual data acquisition and processing.
  - **Solution**: Take advantage of well-supported datasets already reviewed by partners.

3. Is anything missing?

- Yes. Certain species/habitat most at risk from solar development were not captured.
  - **Solution**: Key detailed layers (gopher tortoise, eastern indigo snake, active river areas) added in addition to base rankings.

4. How can we improve interpretation of results?

- Increase number of sensitivity rankings to capture areas without any known concern.
- Add new preference category (avoidance recommended) to highlight areas of highest concern.

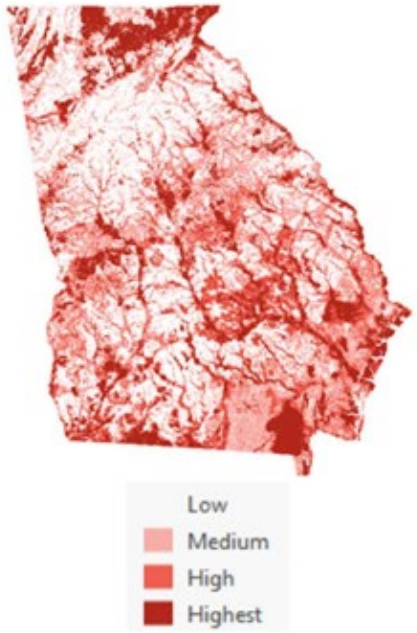
The ranking analysis classifications are as follows:

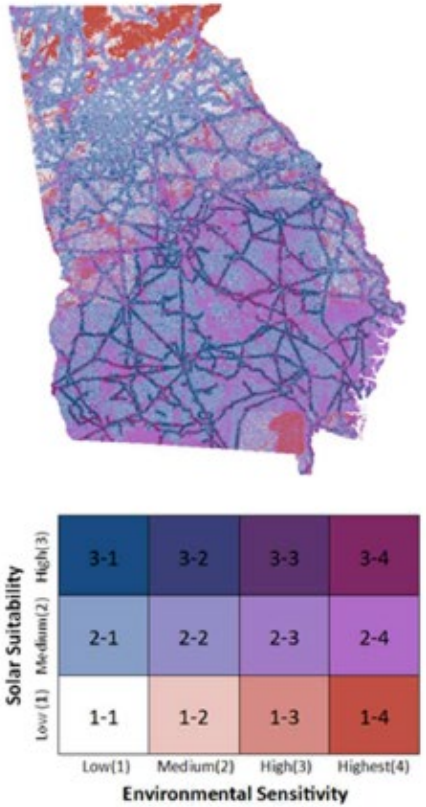
Environmental Sensitivity Rankings	Environmental Sensitivity Data Layer Classifications				
	Conservation Blueprint Data	**Resilient and Connected Lands**	**Gopher Tortoise**	**Eastern Indigo Snake**	**Rivers**
Highest (4)	Highest priority	Resilient with confirmed diversity; climate flow zones with confirmed diversity; climate corridor with confirmed diversity	Population survey	Conservation Units	Medium level rivers (200ft buffer)
High (3)	High priority	Secured resilient areas; secured climate flow zones; secured climate corridor	Suitable habitat	Modeled habitat within current USFWS range boundary	N/A
Medium (2)	Medium priority; priority connections	Unsecured resilient areas; vulnerable climate flow zones; vulnerable climate corridor	Sandhill survey	Modeled habitat outside current USFWS range boundary	Active River Areas
Low (1)	Not of concern	Vulnerable	N/A	N/A	N/A

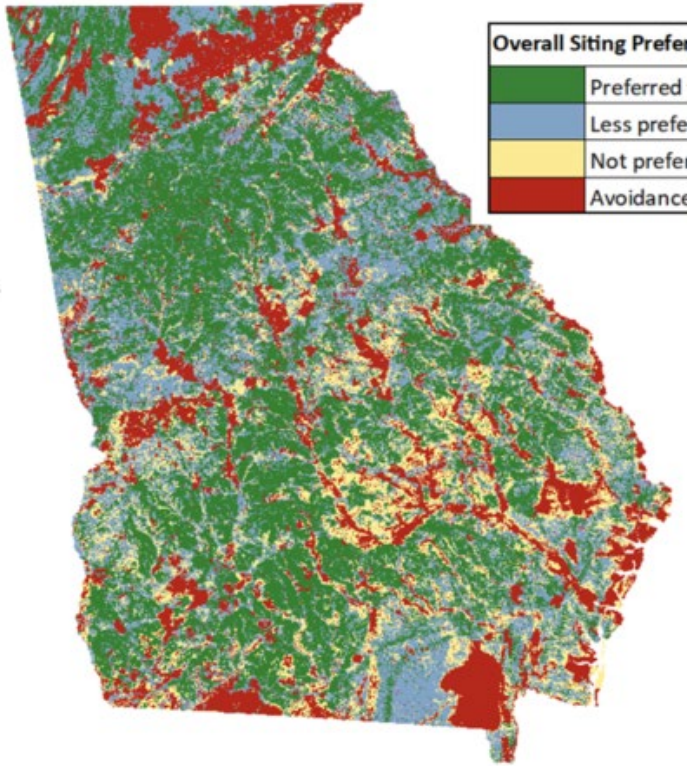
Note: The highest rank from any category was retained throughout analysis.

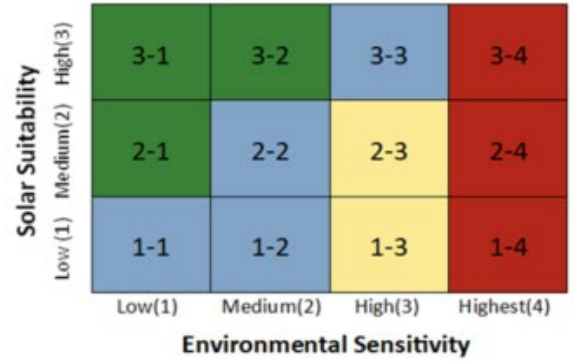
Overall Preference Map

Solar Suitability + Environmental Sensitivity = Conflict Analysis Map









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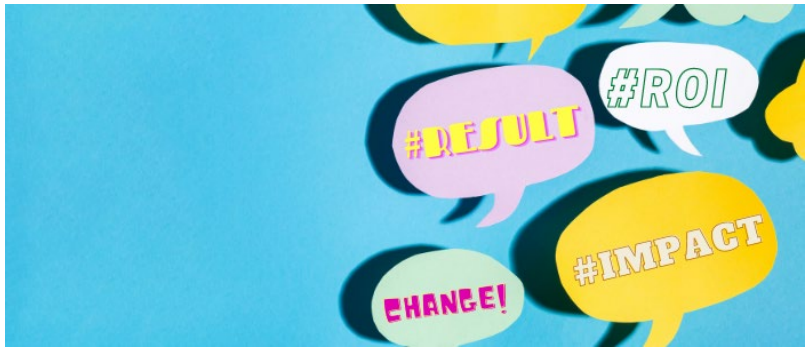
Tracking impacts



1. Partner alignment:
   - Updated rankings utilize comprehensive datasets already supported by partners.
   - USFWS and GA DNR were integral in data refinement process and now direct developers to the tool.
   - Representatives from Georgia Power and The Orianne Society contributed to data revision process to increase buy-in.
2. Tool use and interest:
   - User statistics indicate greater rates of daily access.
   - Inquiries have been received from solar developers, consultants, and solar investors regarding specific projects and/or counties of interest.
   - Ranking datasets have been requested by solar developers.
   - State agencies and USFWS offices across the country have expressed interest in implementing our methodology.
3. Education and awareness:
   - Connections with Drawdown Georgia and Drawdown Georgia Business Compact have expanded audience.
   - Project was featured on Yale Climate Connections podcast.
   - Georgia Solar Energy Association and SERPPAS (Southeast Regional Partnership for Planning and Sustainability) both reference tool as a resource.

Next steps

BOOKMARK THE TOOL:
http://bit.ly/GALowImpactSolar

- Data and modeling refinement
- Corporate engagement
- Continued outreach to developers, utilities, and planners

Thank you! Please reach out for more information (or potential funding/partnership opportunities):
Amy.Gutierrez@tnc.org

Georgia Climate Conference 2021
Jekyll Island's landfill solar project

Next Third Thursday Web Forum

9-15-2022

10:00 am

Yvonne Allen

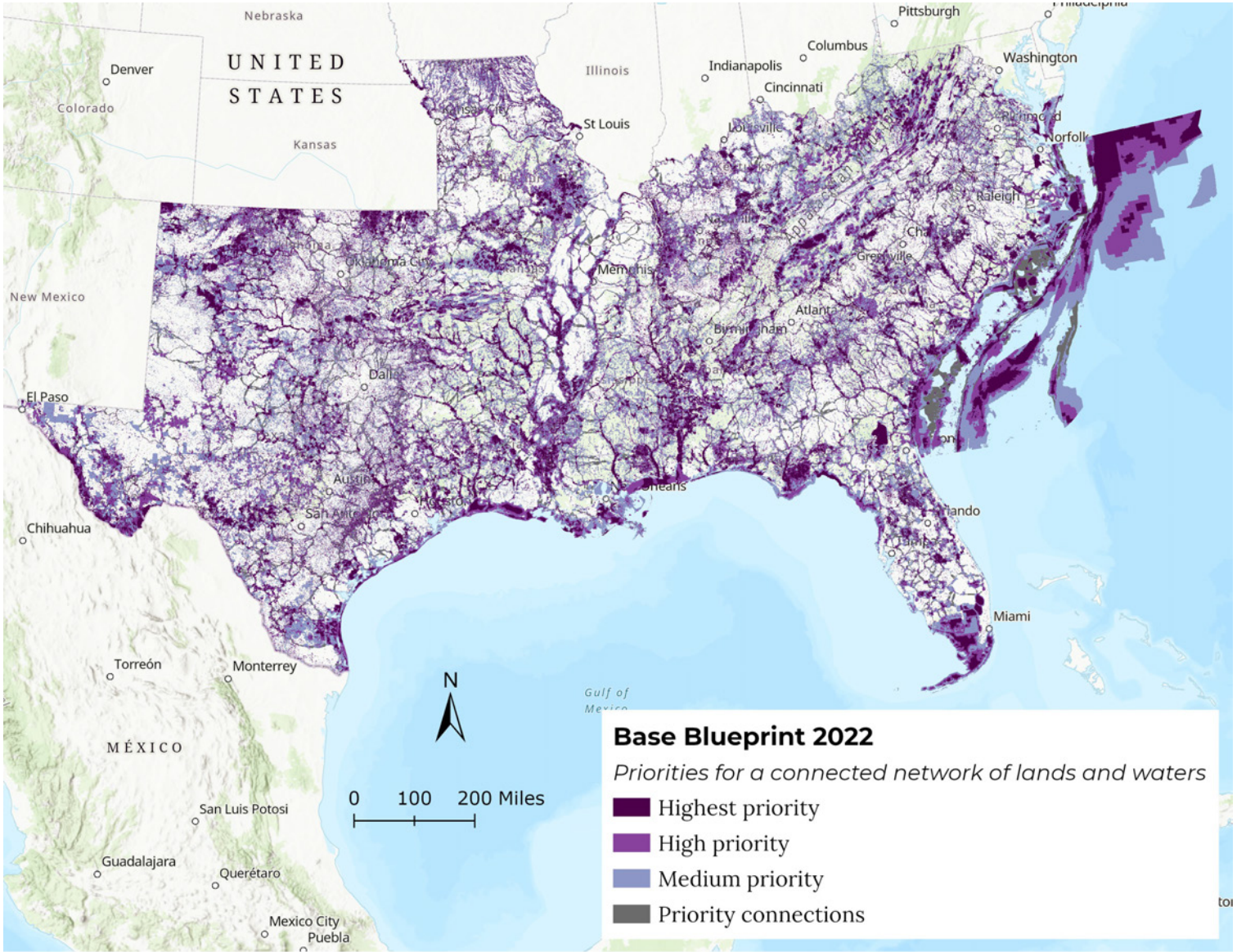
U.S. Fish and Wildlife Service

Landscape scale assessment of floodplain inundation Frequency using Landsat imagery

Staff updates

- Progress on Southeast Blueprint 2022

Progress on Southeast Conservation Blueprint 2022



How to get involved in SECAS

- Sign up for the SECAS newsletter

  secassoutheast.org

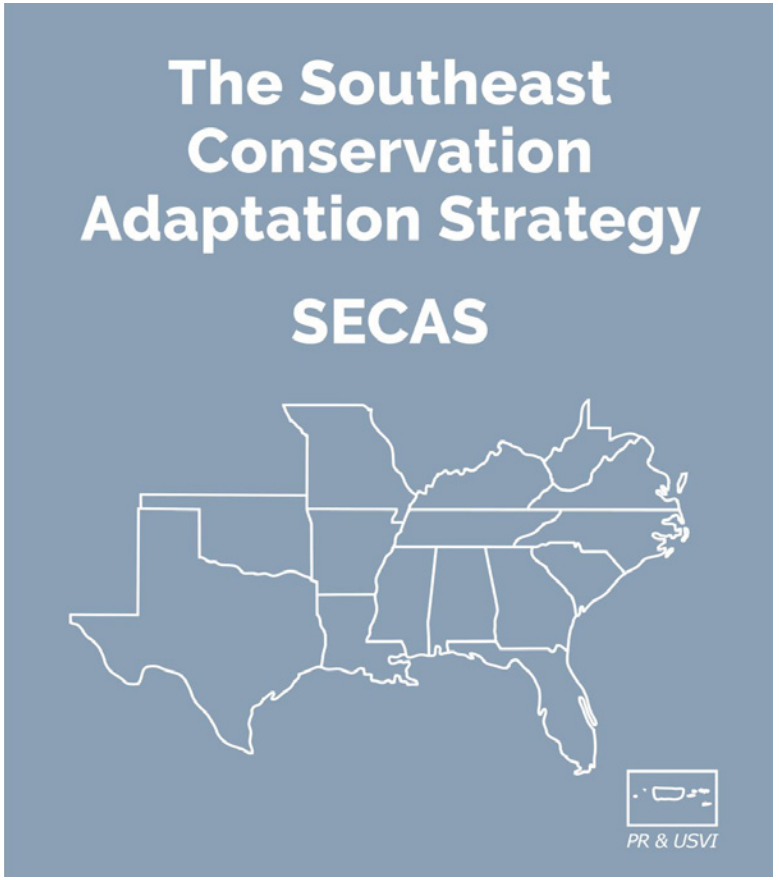
- Connect with SECAS staff or partners

  secassoutheast.org/staff

  secassoutheast.org/partners

- Explore the Southeast Conservation Blueprint

  secassoutheast.org/blueprint




Questions?