

Building Science-Based Spatial Decision Support Tools to Promote Environmental Sustainability

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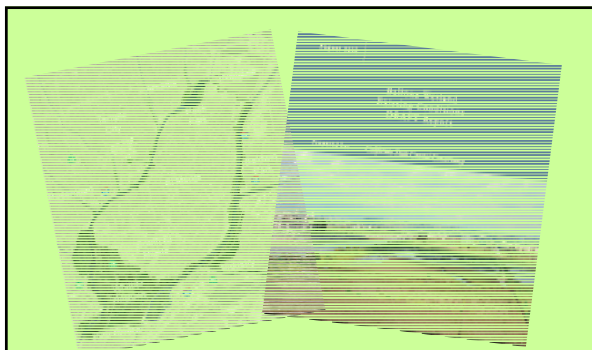
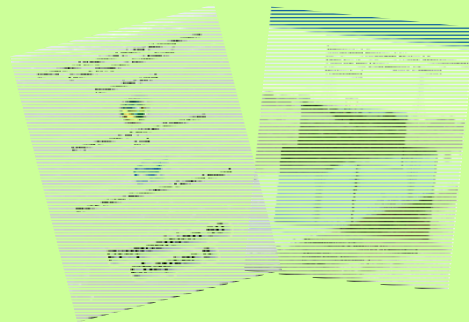
Outline

- Environmental advocacy and management in a digital age
- The Green Visions Plan for 21st Century Southern California
- Geographically explicit inventory and modeling studies
- Spatial decision support tools to support distributed, science-based management



Protecting / restoring natural resources in Los Angeles is challenging

Granting agencies must prioritize competing proposals



Regional comparisons are difficult

The Green Visions Plan provides information about entire region



The Green Visions Plan online tools designed to support decisions

THE GREEN VISIONS PLAN
for 21st century southern california

Green Visions Plan balances habitat, watershed, and open space goals

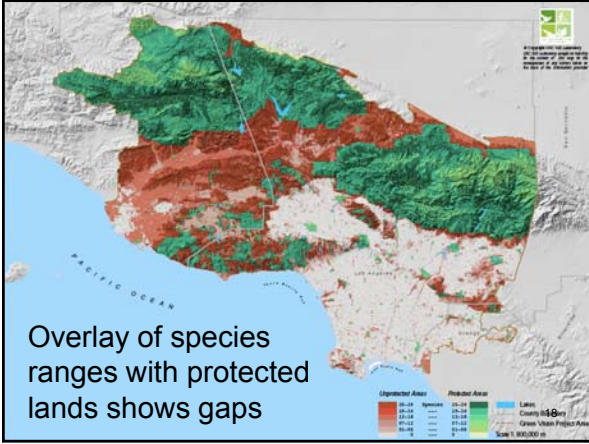
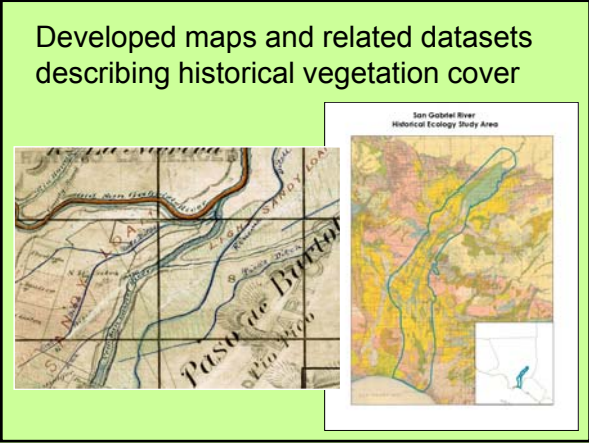
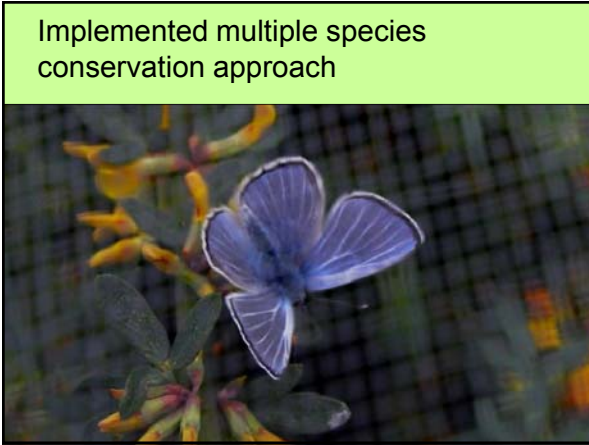
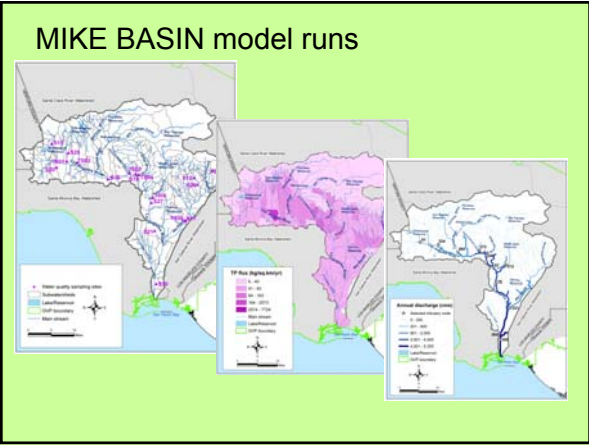
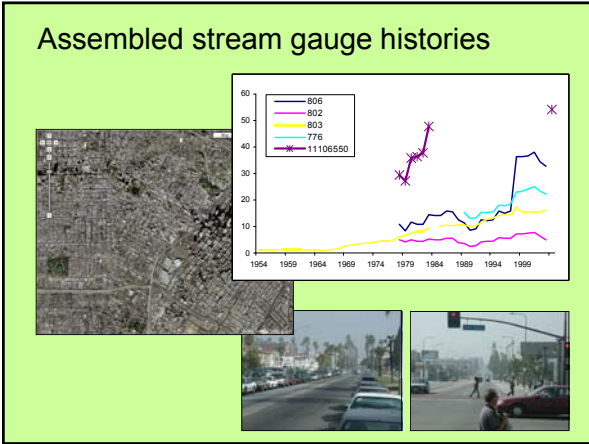
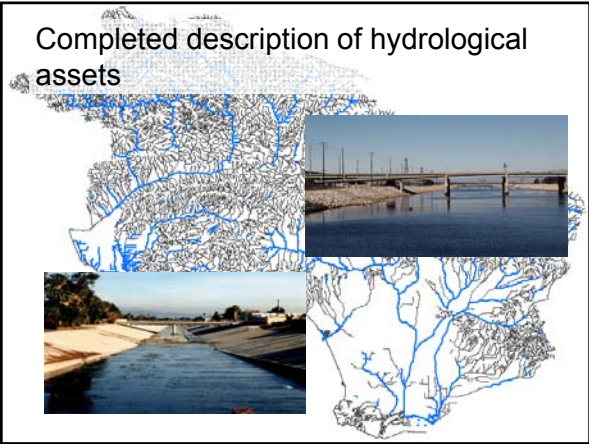
Protect and restore native biodiversity

Improve watershed health

Increase access to recreational open space

Leverage funds with multiple use projects

Broadus School, Sun Valley

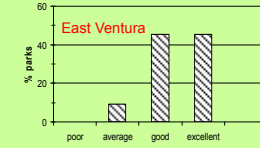


Conducted extensive audit of recreational open space

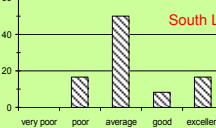


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First regional comparison of open space quality and quantity



Lang Ranch Park, Thousand Oaks

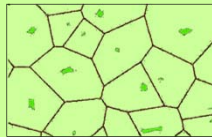


Theresa Lindsay Park, Los Angeles

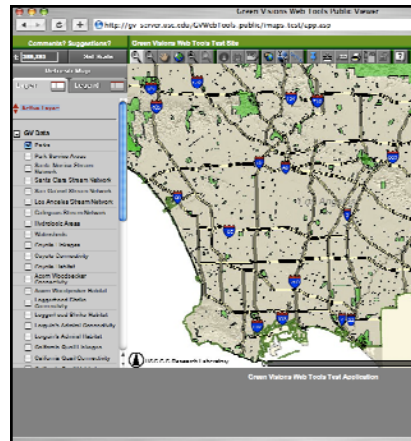
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Calculated mismatch between park supply and park need

- **Park congestion** – demand for parks assuming everyone uses nearest park at some uniform rate
- **Park service areas** – network variant of map equity approach adopted by Wolch et al. (2005)

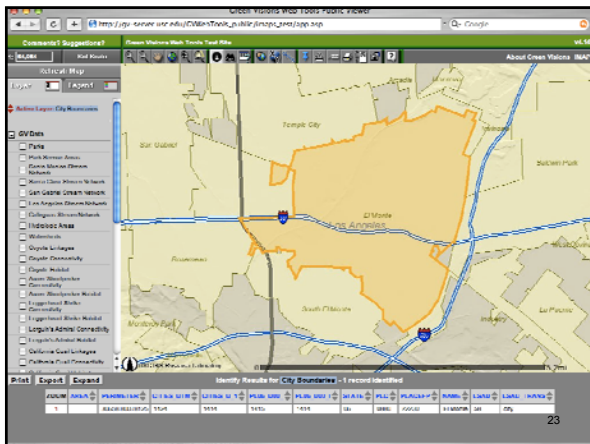


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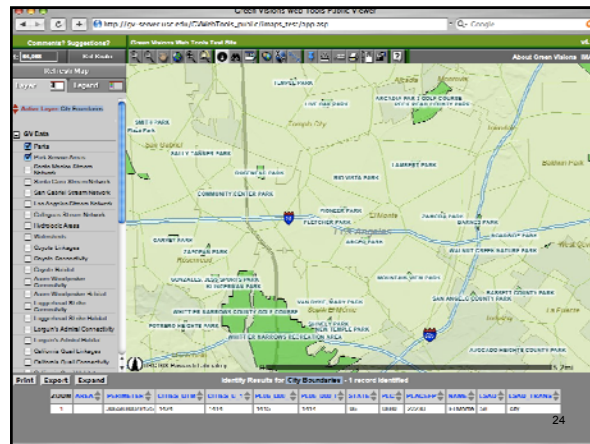


Developed set of online tools for decision support

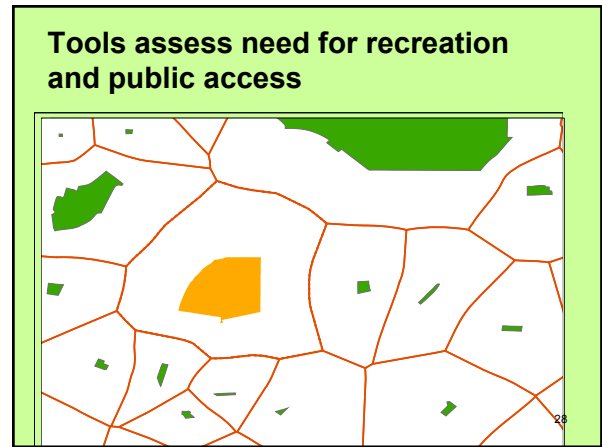
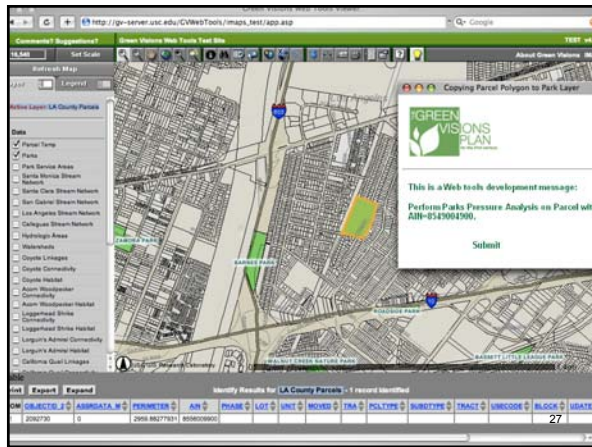
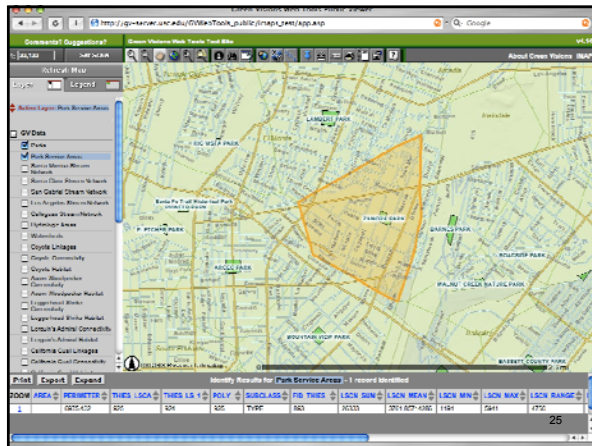
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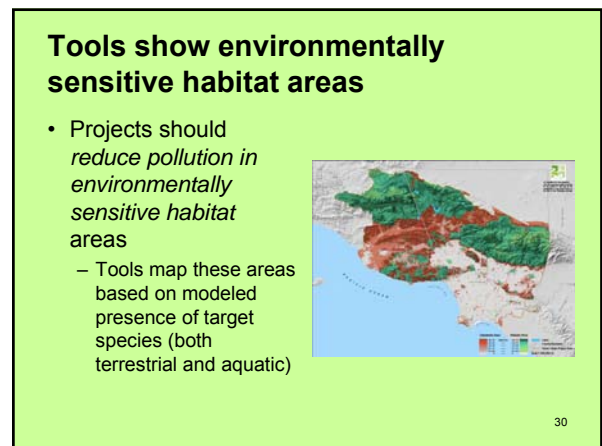


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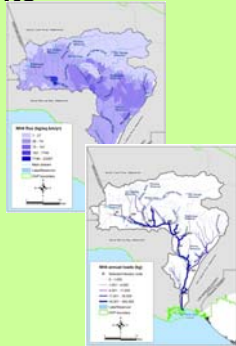
Park Analysis Results ...

Parks	People per park hectare	
	Existing	New
New Park	2,000-7,000	233
Peck Rd County Park	213	165
Barnes Park	3,733	1,582
Roadside Park	6,606	4,213
Morgan Park	7,144	4,037
Santa Fe Dam Rec. Area	20	18
Lambert Park	15,250	2,839
Zamora Park	20,140	7,321
Bassett Lit. League Park	16,634	15,997



Tools identify sites needing water quality improvements

- Region-wide predictive water quality model
 - Identifies those areas most in need of water quality improvements
 - Assesses need for storm water capture and management



Web Links / Questions ...



<http://gislab.usc.edu>

<http://greenvisionsplan.net>

http://gv-server.usc.edu/GVWebTools_public/imaps_test/app.asp