DEVELOPMENT CONSTRAINTS MAP

City of San Marcos
Comprehensive Plan

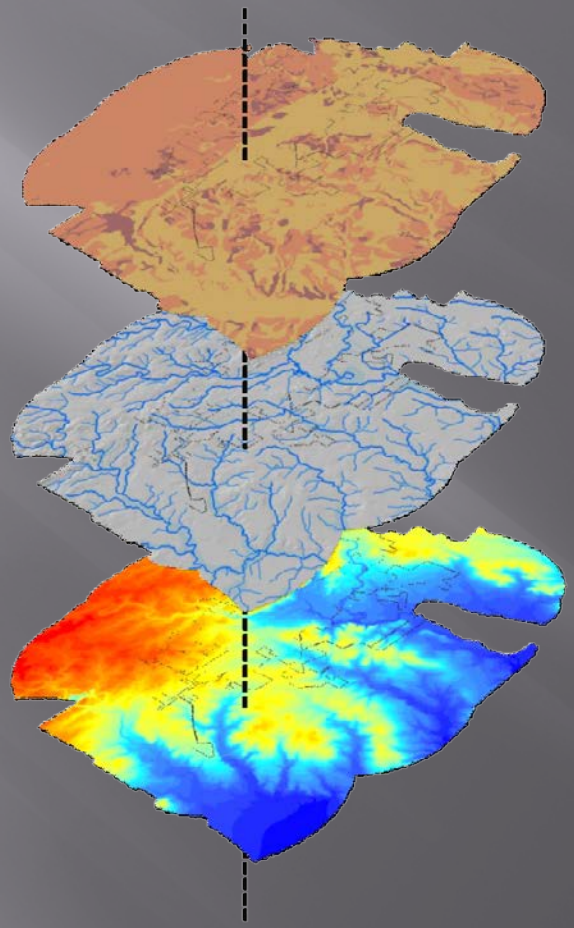
September 10, 2012

Land Use Planning

- Important component of Comprehensive Plan
- Directs growth to where you want it and away from where you don't.
- Opportunity to analyze current growth trends in the area, protect environmental and cultural features that the community values, and to maximize efficient use of existing and future investments such as utility and transportation infrastructure.

GIS-based land use suitability analysis

- Accomplished using a geographic overlay
- Useful for determining areas that are more or less suitable for development
- Community values on a number of environmental constraints are expressed as weights an d summed basec on a 10′ X 10′ grid.
- On this map 10 different classes of regulatory constraints, environmentally sensitive features, and important cultural sites have been assigned a weight from 1 to 5.



Soils

Floodplains

Elevation Model

Environment and Resource Protection

We envision San Marcos to be a community of outstanding stewards of our irreplaceable, unique, natural environment. We value our resource and energy efficiency and our community's health, well being, and prosperity.

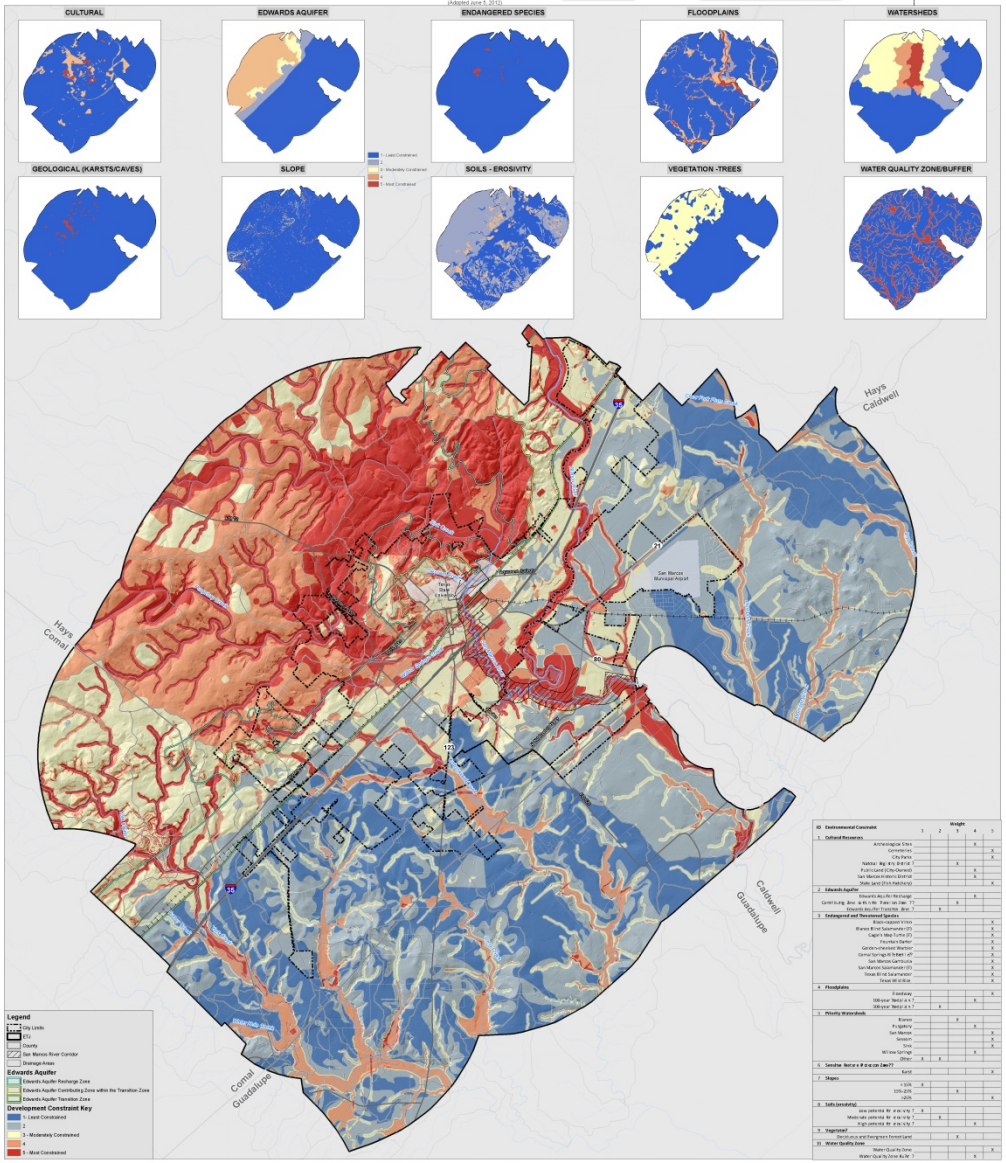
Land Use

We envision San Marcos as a community with balanced and diverse land uses including protection for our historical, cultural, and natural resources.

-Dream San Marcos Vision Statements
(Adopted June 1, 2012)

This suitability map is intended to clearly articulate which locations within the current ETJ boundary of the City of San Marcos are best positioned to accomodate future growth from an environmental standpoint. It is for use during the land use planning/ preferred scenario excercises involved with the development of the San Marcos Comprehensive Plan.

A development constraint or land use suitability map involves overlaying layers of information in a GIS environment such as soils, floodplains, slopes, and elevation data in order to help determine which areas are better suited for future developement. On this map 13 different classes of regulatory constraints, environmentally sensitive features, and important cultural sites have been been assigned a weight on a scale of 1 to 5 based on the aggregated weight of all the constraints are shown in the table below. All areas within the Extra-Territorial Jurisdiction (ETJ) of the City of San Marcos were overlaid with a 10' X 10' grid and each cell within that grid assigned a value based on the aggregated weight of all the constraints at that location.



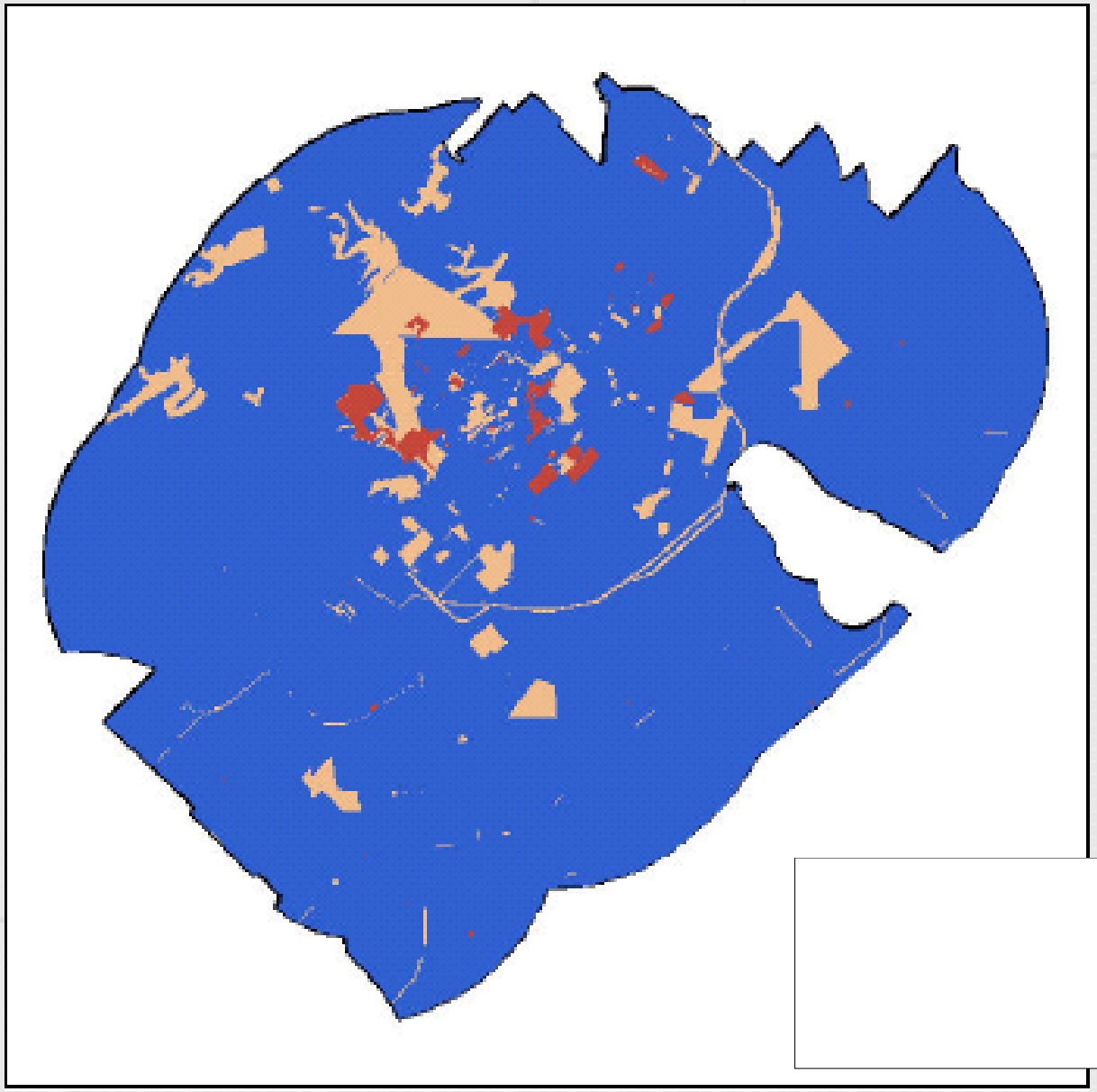
ID	Environmental Constraint	Weight 1	2	3	4	5
1	**Cultural Resources**					
	Archeological Sites			X		
	Cemeteries					X
	Parks					X
	National Register of Historic Places		X			
	Public Land (City Owned)			X		
	San Marcos Historic District			X		
	State Land (Trails Preserves)					X
2	**Edwards Aquifer**					
	Edwards Aquifer Recharge			X		
	Contributing Zone within the Transition Zone		X			
	Edwards Aquifer Transition Zone	X				
3	**Endangered and Threatened Species**					
	Black-capped Vireo					X
	Blanco Blind Salamander (E)					X
	Capon's Mud Turtle (E)					X
	Fountain Darter					X
	Golden-cheeked Warbler					X
	Comal Springs Riffle Beetle					X
	San Marcos Gambusia					X
	San Marcos Salamander (E)					X
	Texas Blind Salamander					X
	Texas Wild Rice					X
4	**Floodplains**					
	Floodway					X
	100-year Residential ≥ 1'				X	
	100-year Residential ≥ 1'	X				
5	**Priority Watersheds**					
	Blanco		X			
	Purgatory			X		
	San Marcos					X
	Sessom					X
	Willow					X
	Mill Creek Springs			X		
	Other	X	X			
6	**Sensitive Natural Areas (Zone 7)**					
	Karst					X
7	**Slopes**					
	< 15%	X				
	15%-25%		X			
	>25%					X
8	**Soils (erosivity)**					
	Low potential for erosivity ?	X				
	Moderate potential for erosivity ?		X			
	High potential for erosivity ?			X		
9	**Vegetation?**					
	Deciduous and Evergreen Forest Land		X			
10	**Water Quality Zone**					
	Water Quality Zone					X
	Water Quality Zone Buffer ?			X		

DEVELOPMENT CONSTRAINTS MAP
COMPREHENSIVE PLAN
CITY OF SAN MARCOS, TEXAS

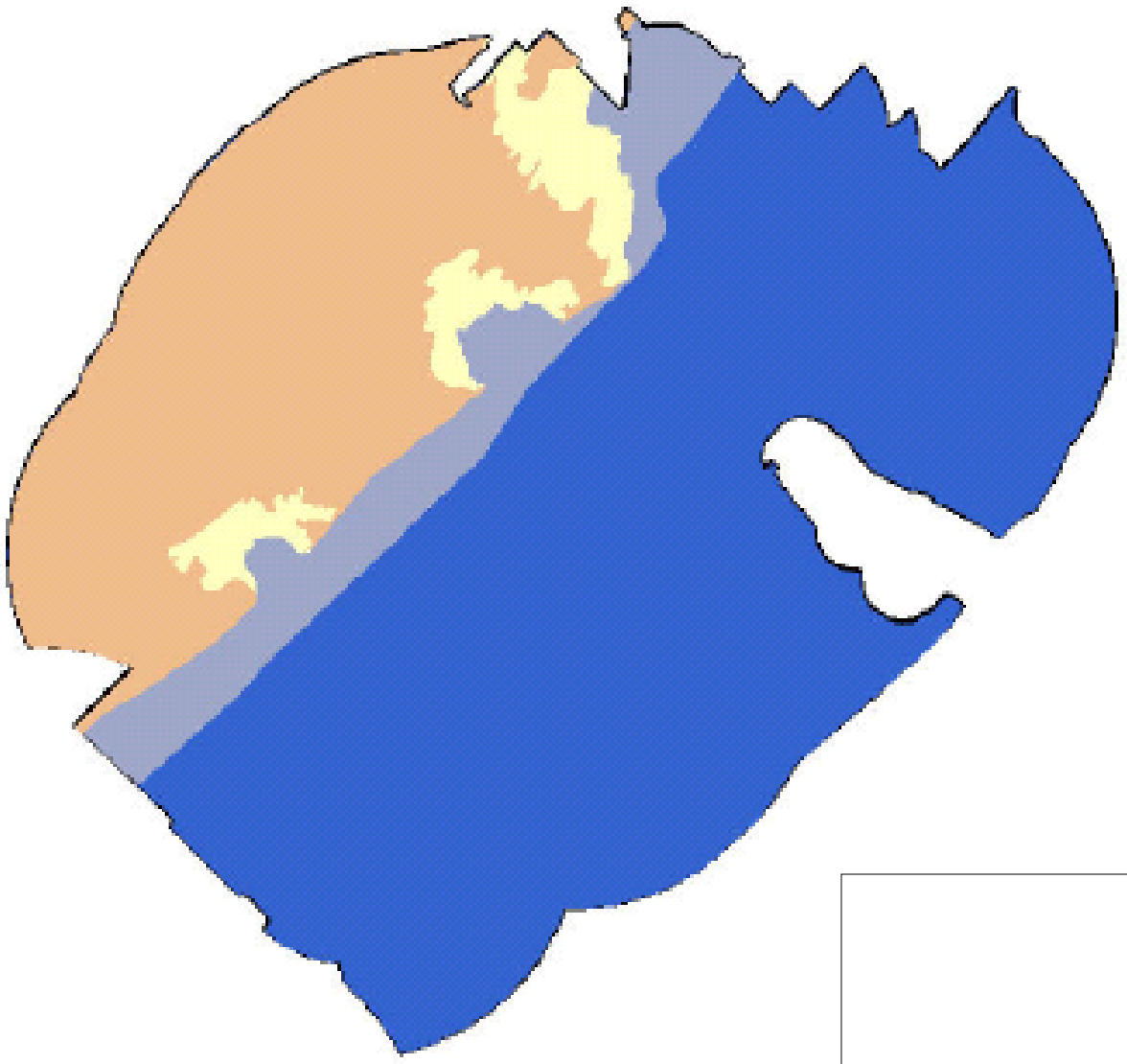
This suitability map is intended to clearly articulate which locations within the current ETJ boundary of the City of San Marcos are best positioned to accomodate future growth from an environmental standpoint. It is for use during the land use planning/ preferred scenario excercises involved with the development of the San Marcos Comprehensive Plan.

CULTURAL

ID	Environmental Constraint	Weight				
		1	2	3	4	5
1	**Cultural Resources**					
	Archeological Sites				X	
	Cemeteries					X
	City Parks					X
	National Registry District			X		
	Public Land (City-Owned)				X	
	San Marcos Historic District				X	
	State Land (Fish Hatchery)					X



EDWARDS AQUIFER



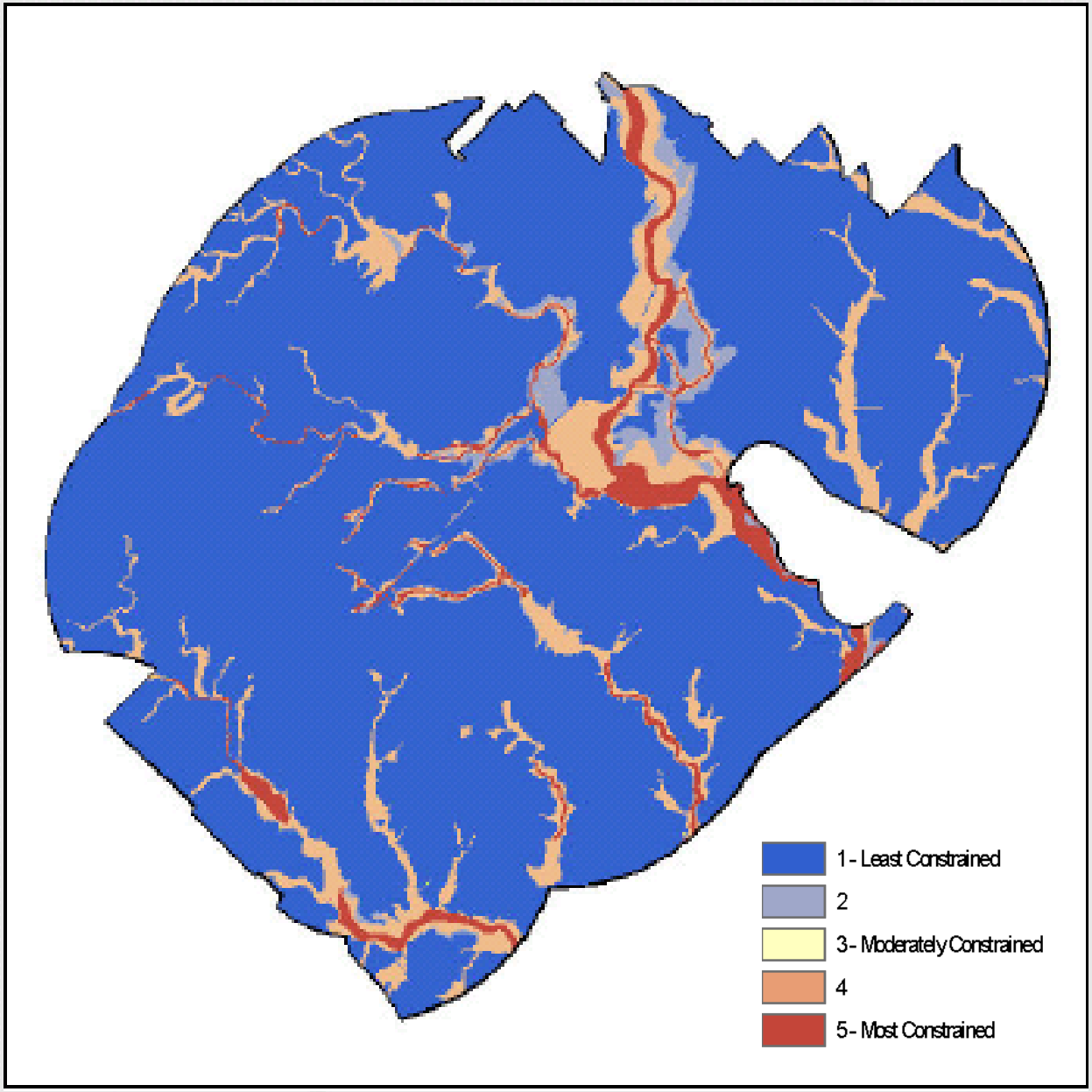
ID	Environmental Constraint	Weight				
		1	2	3	4	5
2	**Edwards Aquifer**					
	Edwards Aquifer Recharge				X	
	Contributing Zone within the Transition Zone			X		
	Edwards Aquifer Transition Zone		X			

ENDANGERED SPECIES

ID	Environmental Constraint	Weight				
		1	2	3	4	5
3	**Endangered and Threatened Species**					
	Black-capped Vireo					X
	Blanco Blind Salamander (T)					X
	Cagle's Map Turtle (T)					X
	Fountain Darter					X
	Golden-cheeked Warbler					X
	Comal Springs Riffle Beetle					X
	San Marcos Gambusia					X
	San Marcos Salamander (T)					X
	Texas Blind Salamander					X
	Texas Wild Rice					X

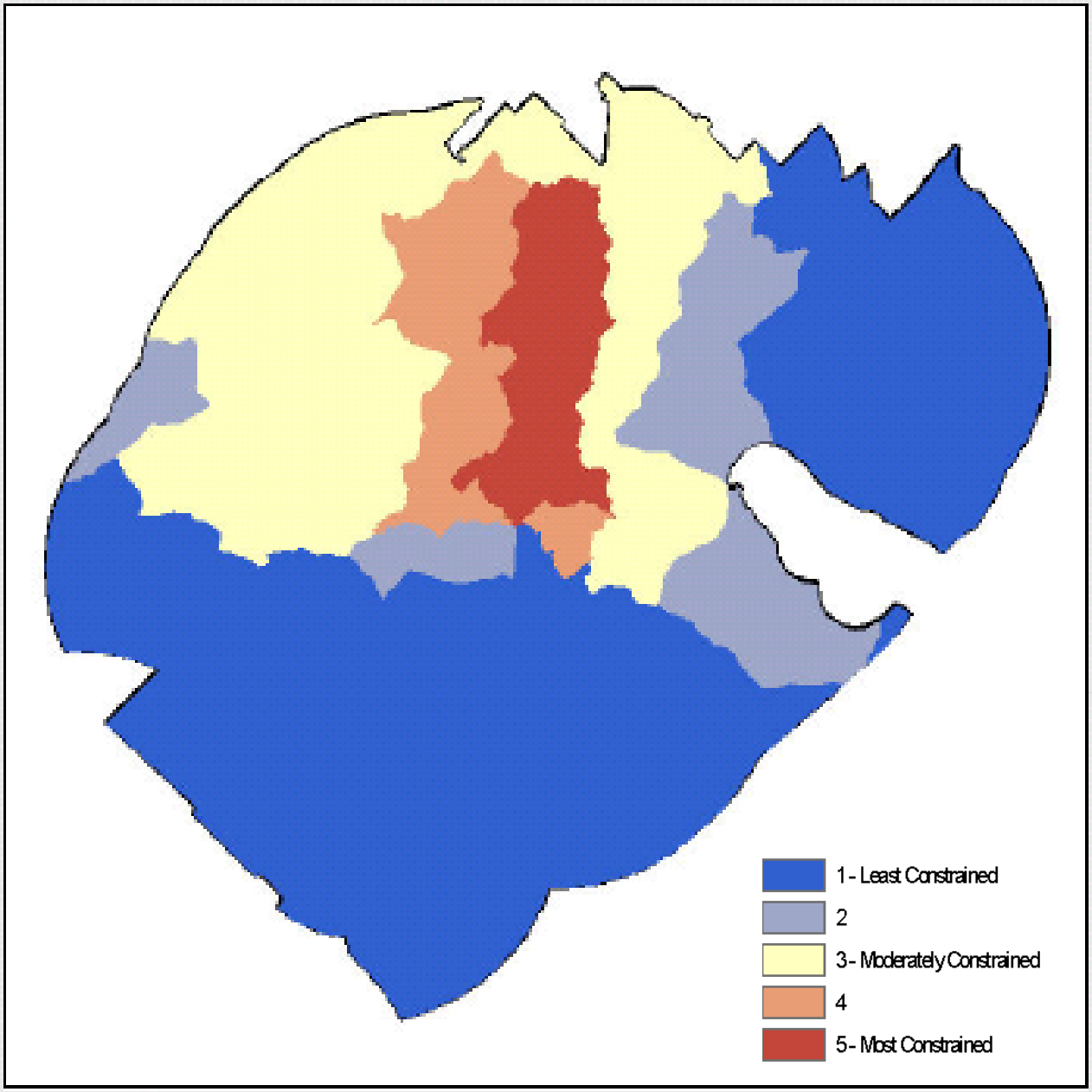
FLOODPLAINS

ID	Environmental Constraint	Weight				
		1	2	3	4	5
4	**Floodplains**					
	Floodway					X
	100-year floodplain				X	
	500-year floodplain		X			



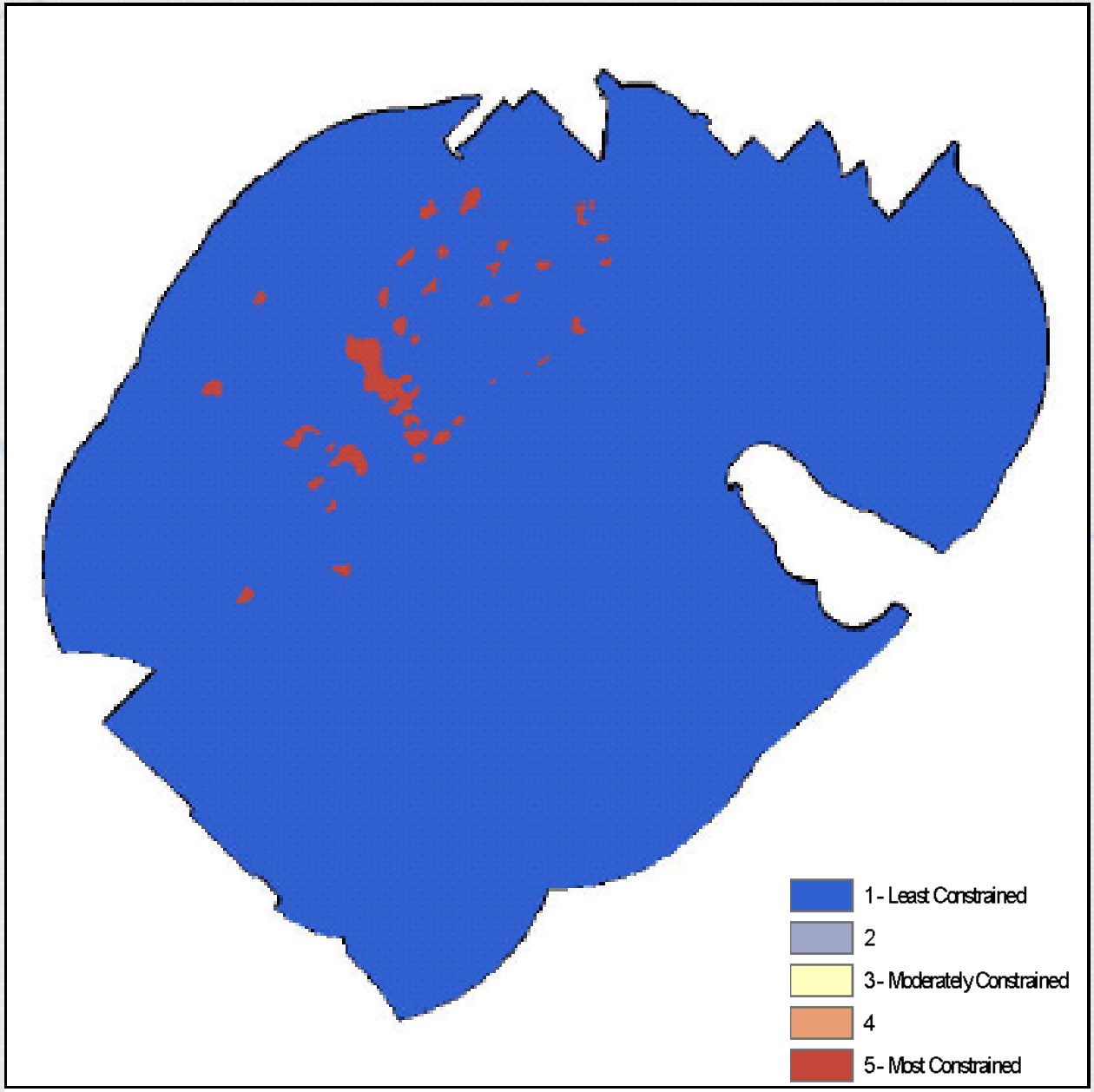
WATERSHEDS

ID	Environmental Constraint	Weight				
		1	2	3	4	5
5	Priority Watersheds					
	Blanco			X		
	Purgatory				X	
	San Marcos					X
	Sessom					X
	Sink					X
	Willow Springs				X	
	Other	X	X			



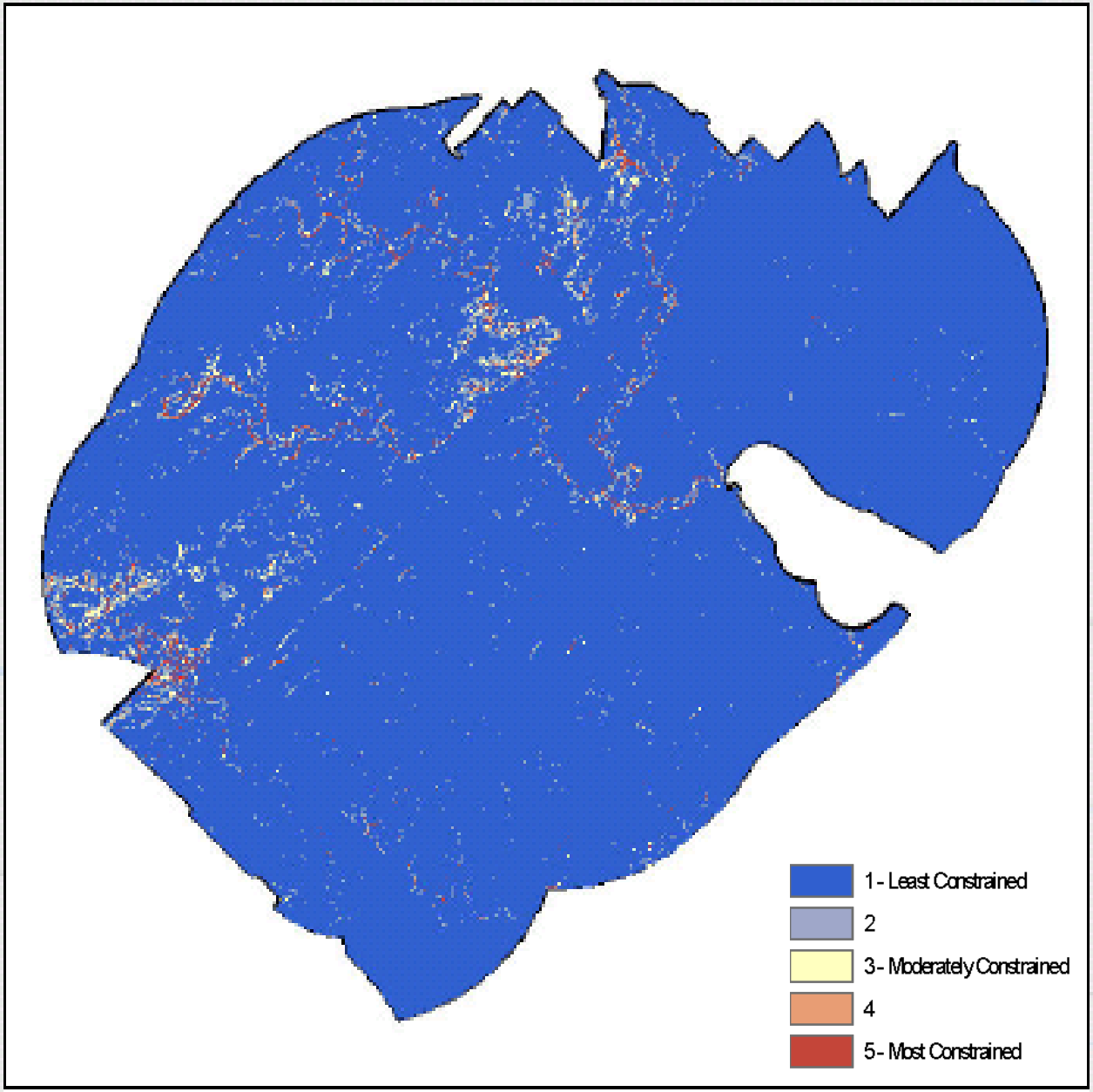
GEOLOGICAL (KARSTS/CAVES)

ID	Environmental Constraint	Weight				
		1	2	3	4	5
6	Sensitive Feature Protection Zone					
	Karst					X



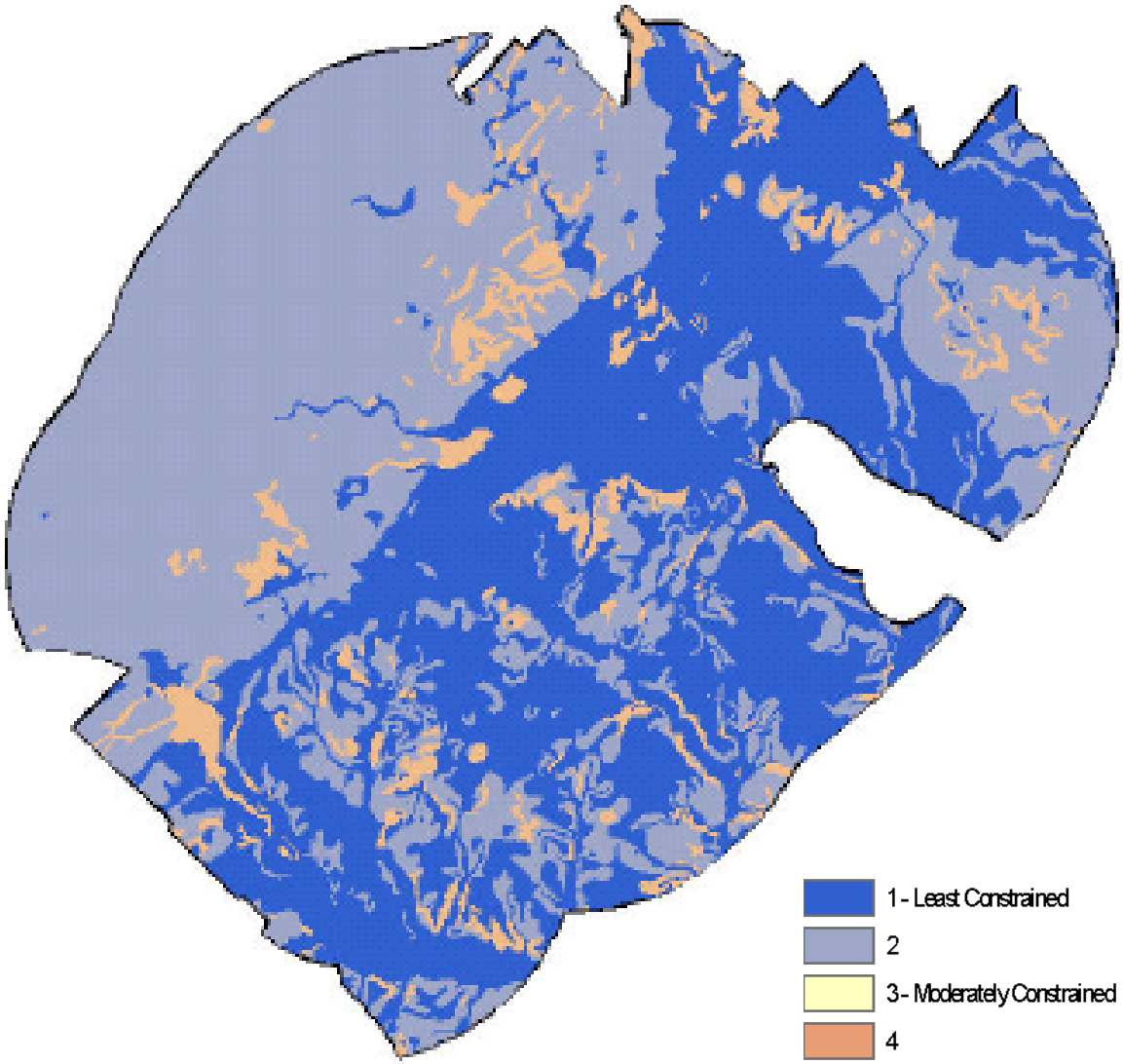
SLOPE

ID	Environmental Constraint	Weight				
		1	2	3	4	5
7	Slopes					
	< 15%	X				
	15%-25%			X		
	>25%					X



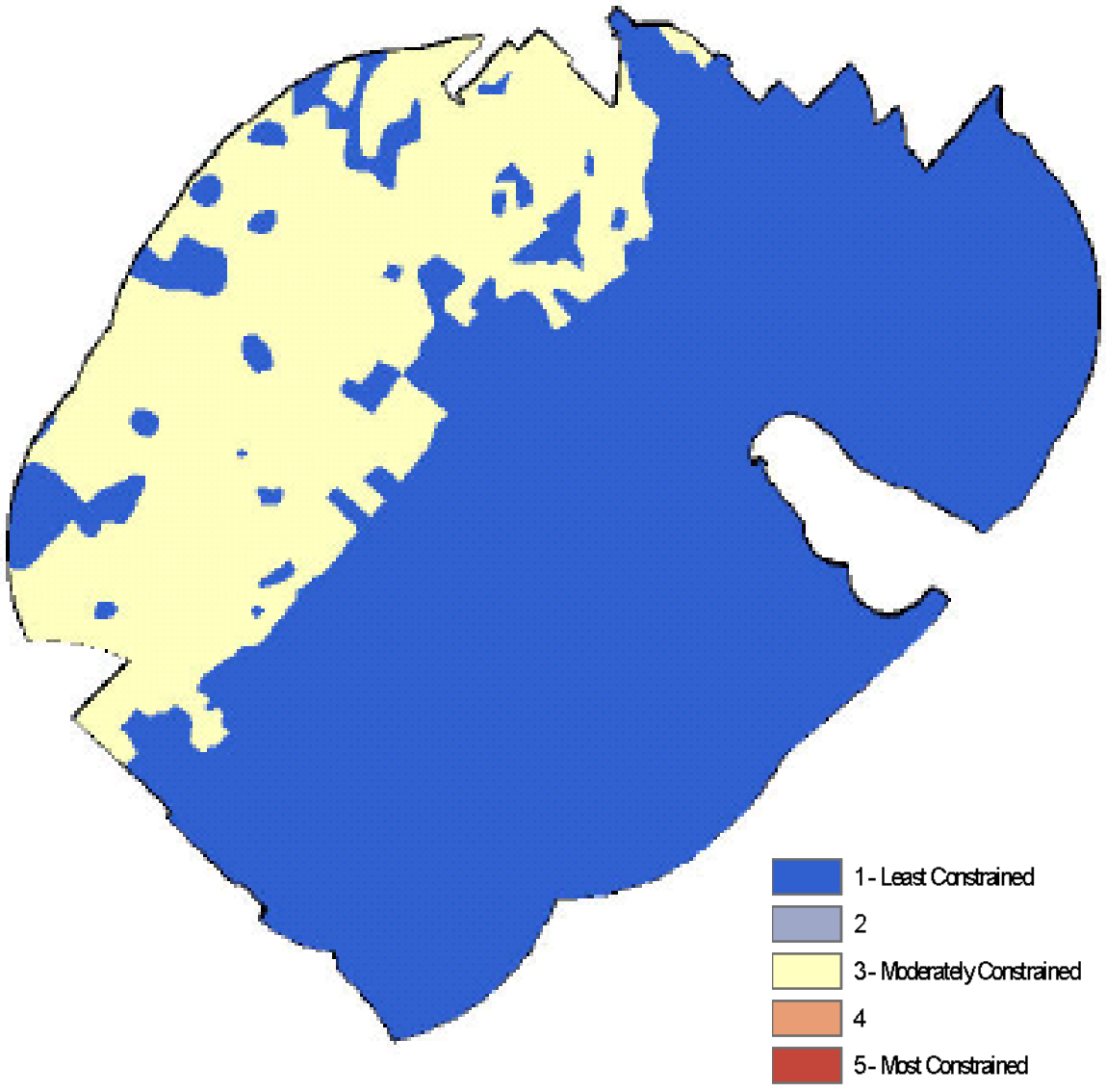
SOILS - EROSIVITY

ID	Environmental Constraint	Weight				
		1	2	3	4	5
8	Soils (erosivity)					
	Low potential for erosivity	X				
	Moderate potential for erosivity		X			
	High potential for erosivity				X	



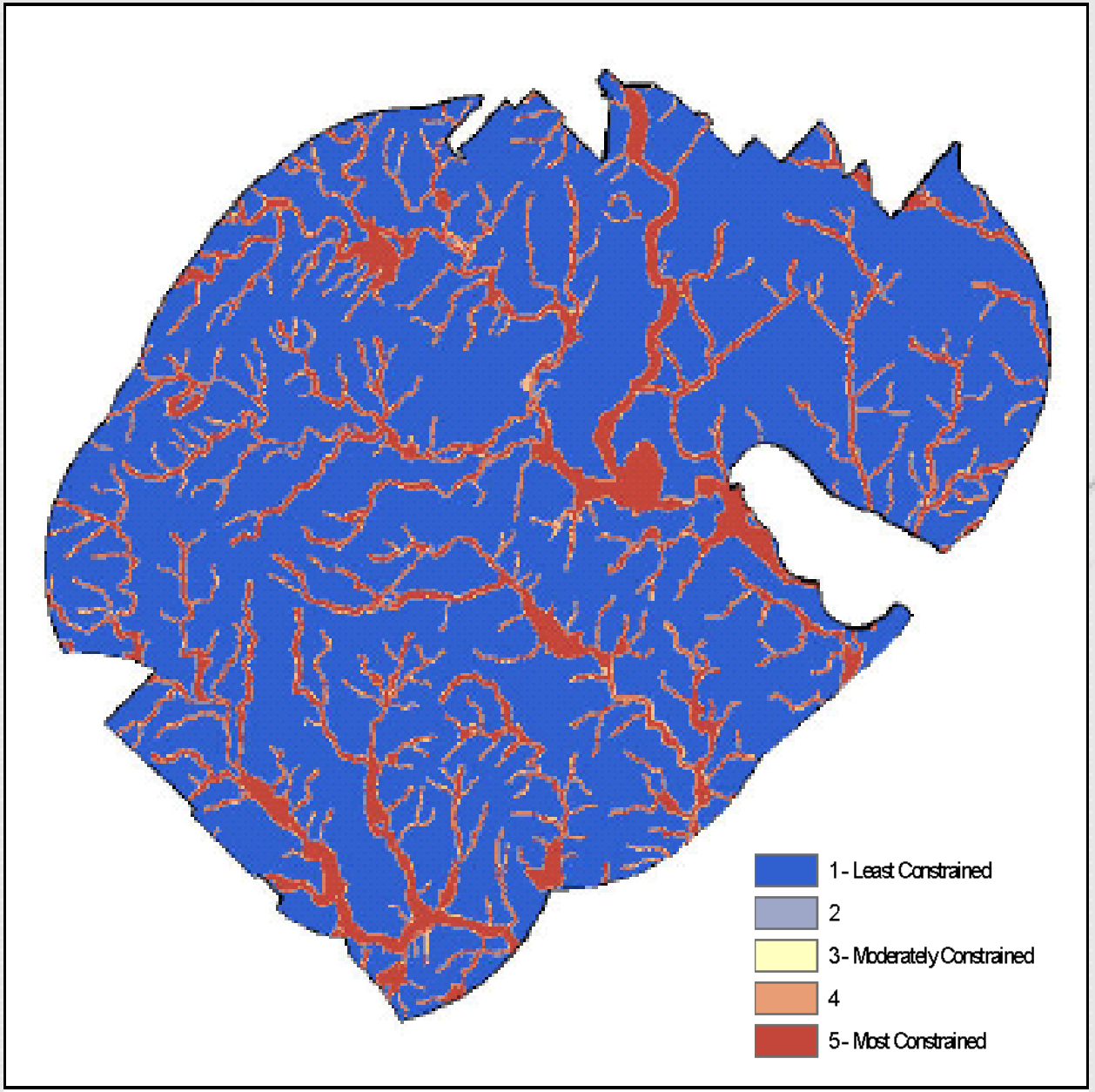
VEGETATION -TREES

ID	Environmental Constraint	Weight				
		1	2	3	4	5
9	**Vegetation**					
	Deciduous and Evergreen Forest Land			X		



WATER QUALITY ZONE/BUFFER

ID	Environmental Constraint	Weight				
		1	2	3	4	5
10	**Water Quality Zone**					
	Water Quality Zone					X
	Water Quality Zone Buffer				X	



CAC Feedback

- On July 25, 2012 these assumptions were presented to the Citizens Advisory Committee.
- Input was received on the weights given to each constraint and incorporated into the suitability model

Questions/ Comments

Thank You

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