

Old Lyme Land Trust Conservation Prioritization

GIS Overlay Analysis



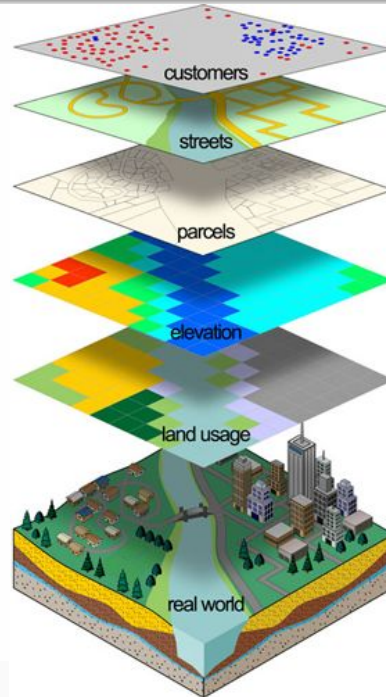
Purpose

- Determine the spatial distribution of natural resources in Old Lyme
- Determine parcels of land that contain high values of natural resources
 - Other conservation criteria targeted by the LT
- **Goal:** Produce a “conservation value” of each parcel in town

Overlay Analysis Basics

INPUT 1				INPUT 2		
3	3	1	+	11	12	10
4	2	2		12	12	10
3	1	1		14	12	11

OUTPUT		
14	15	11
16	14	12
17	13	12



- **Overlay Analysis** - Technique to apply a common scale to diverse inputs to create an integrated analysis.

Inputs

Natural Resource Inputs

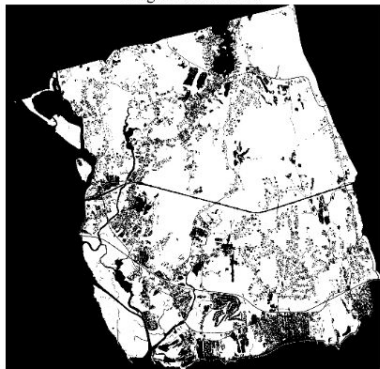
1. Large Natural Areas
2. Core Forest Areas
3. Early Successional Habitat Area
4. Surface Hydrology
5. Critical Habitats
6. Natural Diversity Database Areas
7. Geological Areas

Parcel Considerations

1. Adjacent to existing Land Trust preserves/properties
2. Lot size
3. Ownership

Input Layers

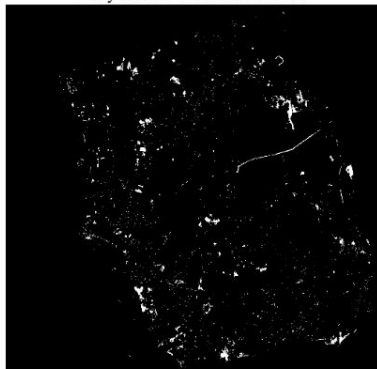
Large Natural Areas



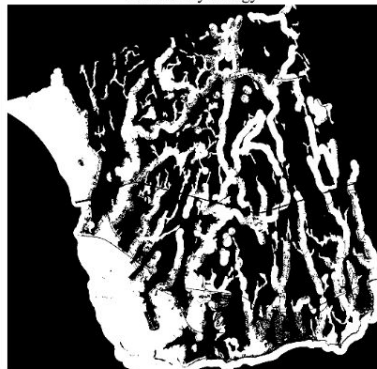
Core Forest Areas



Early Successional Habitat Areas



Surface Hydrology



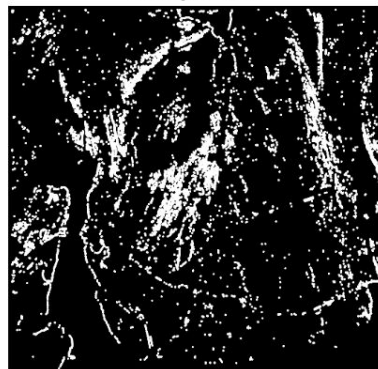
Critical Habitat Areas



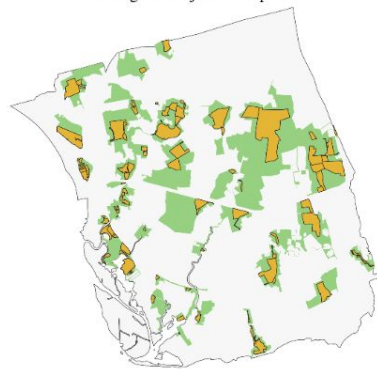
Natural Diversity Database Areas



Geological Areas



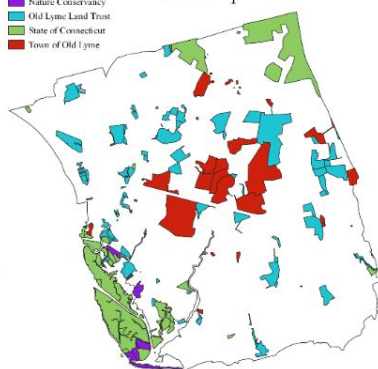
Existing and Adjacent Properties



Area Ratio



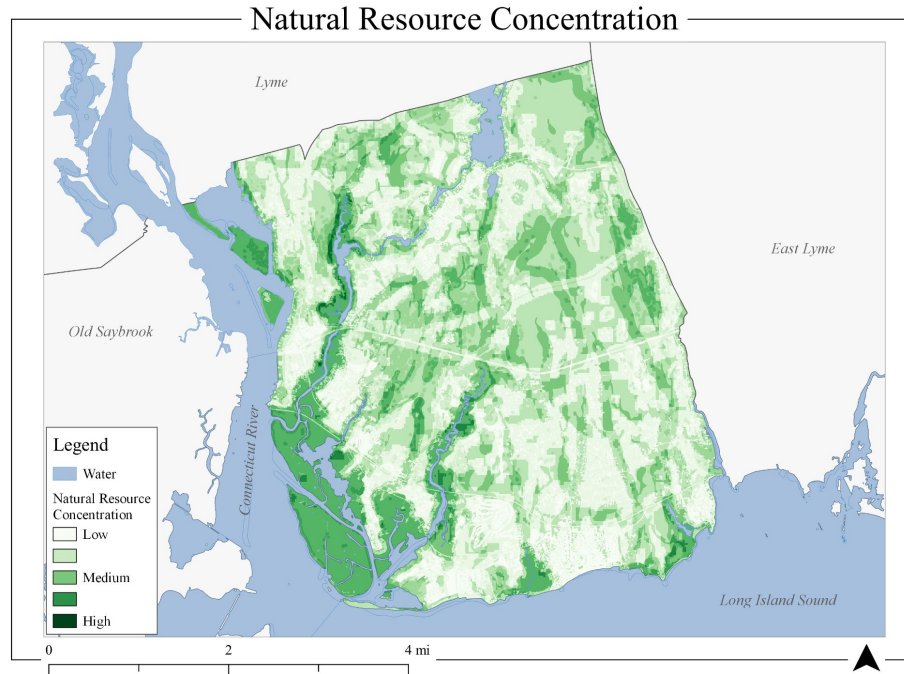
Ownership



Weight Input Layers

Category	Criteria	Initial Weight
Natural Resource	Large Natural Area	1
	Core Forest Area	2
	Early Successional Habitat	1
	Surface Hydrology	2
	Critical Habitats	2
	Natural Diversity Database Area	1
	Geological Area	1
Parcel	Proximity to Existing Preserves	1
	Lot Size	1: 0.5
	Ownership	1

Result - Natural Resource Concentration



Result - Parcel Conservation Values

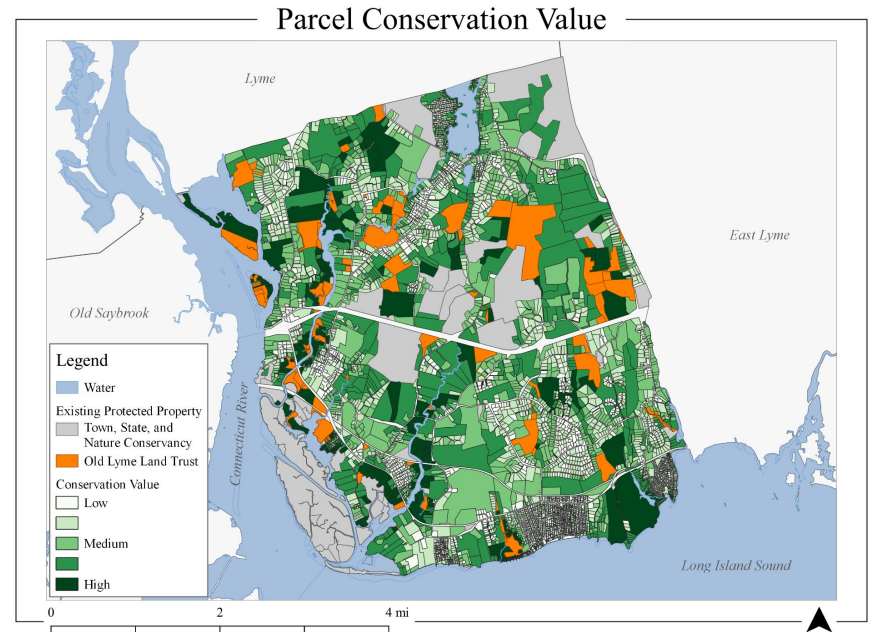
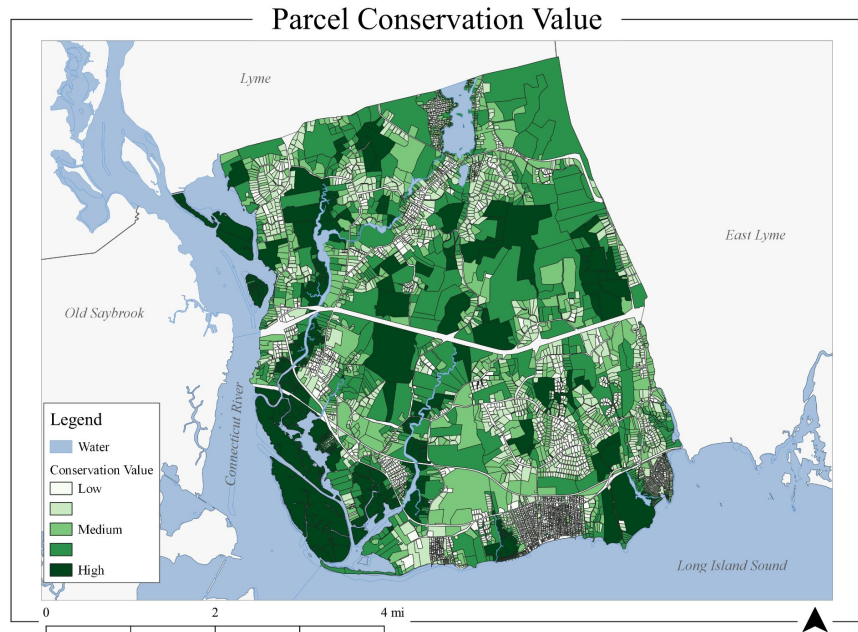


Table of Values

Map_Par_Id	Site Address	Owner	Mean Natural Resource Value	Area Value	Proximity Value	Final Parcel Value
21-27-8			8.035	0	1	9.04
26-2			6.266	1	1	8.27
7-5	35-1 SMITHS NECK RD	STATE OF CONNECTICUT	6.003	1	1	8.00
21-65			6.252	0.5	1	7.75
21-27-9			6.709	0	1	7.71
11-12	DUCK RIVER	STATE OF CONNECTICUT	6.130	0.5	1	7.63
11-8	CONNECTICUT RIVER	NATURE CONSERVANCY INC	6.038	0.5	1	7.54
11-OTHER			5.948	0.5	1	7.45
12-37-2			6.938	0.5	0	7.44
21-27-23			6.433	0	1	7.43
26-1	GOOSE ISLAND	OLD LYME LAND TRUST INC	6.384	1	1	7.38
21-69	5-2 CANDLEWICK LA	STATE OF CONNECTICUT	6.355	0	1	7.36
48-68	45 SHORE RD	OLD LYME LAND TRUST INC	6.197	1	1	7.20
21-27-A-E			6.183	0	1	7.18
21-27-A-E			6.181	0	1	7.18
12-37-3			7.169	0	0	7.17
1-4	GREAT ISLAND - CT RIVER	STATE OF CONNECTICUT	6.095	1	0	7.10

- Use the Map_Par_ID to search for properties: <https://oldlymect.mapgeo.io/>

Possible Additions/Improvements

- Criteria weights are easily adjustable
- Possible new layers
 - Historical sites/lots
 - Preserve linkage
 - Sea level rise

Feedback: Potential for use and changes