

Preserved Land and Open Space Mapping in New Jersey

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Outline

- Context: land records in a home rule state
- Inception, but not from the usual source
- Stakeholders and their information needs
- Data modeling outcomes
- System design

The Goal

A one-stop source for data on preserved land and open space – of all types – in New Jersey

- Conservation
- Agricultural
- Horticultural
- Historic/Cultural
- Recreation



Land Preservation: Many Players, Many Methods

Ownership/Control

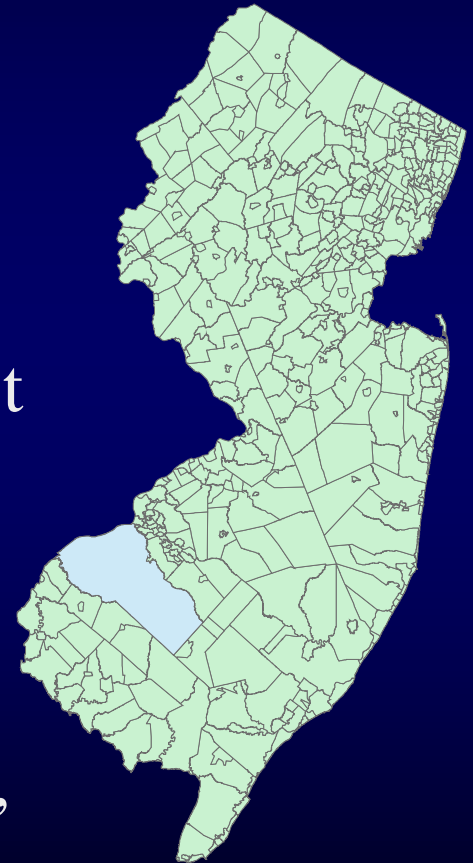
- Federal
- State
- County/Local
- NGO
- Private

Protection

- Statutory
- Easement/Deed
Restriction
- TDR
- Contract
- Subdivision set-aside
- Lease

Land Records in NJ

- Tax map and tax list kept at municipal level (county level in 1 county)
- 541 municipalities + 1 county
- State regs define tax map content, don't explicitly require all easements
- Tax maps are paper (digital option soon), tax list is 1970's mainframe DB
- GIS parcel data derived from tax maps, maintained separately



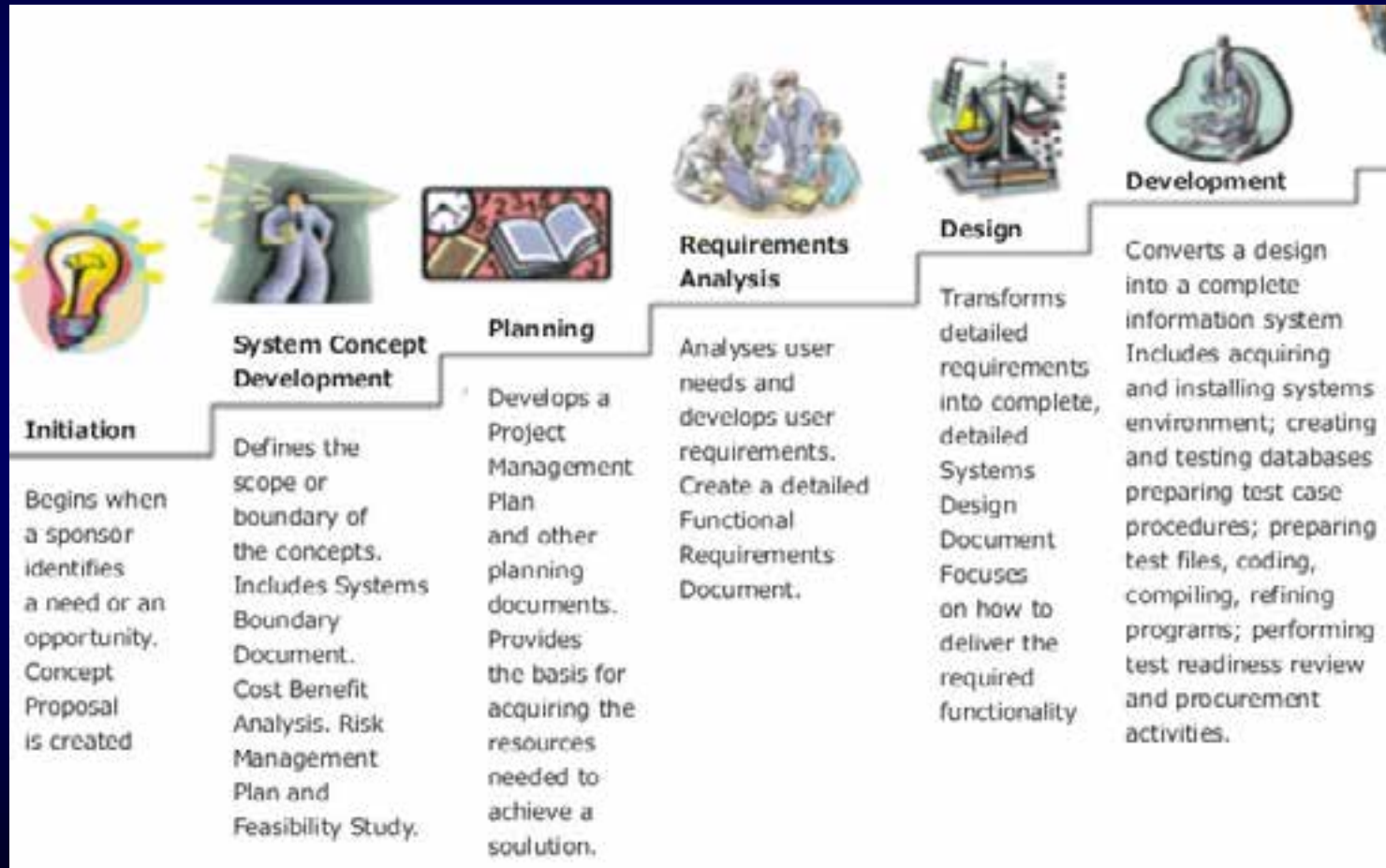
Record Identifiers

- Tax map maintained separately from tax list
- Parcels identified by muni code + block + lot + qual
- Problems w/ leading 0's etc.
- Block/Lot numbers can change after town-wide reassessment!



GIS.Cad_parcel_mod4							
PAMS_PIN *	PCL_MUM *	PCLBLOCK *	PCLLOT *	COUNTY	PROP_CLASS	PROP_LOC	OWNER_NAME
1111_3901_13	1111	3901	13	MERCER	4A	300 N WILLOW ST	A A AND B A HOLDNG COMPANY, INC.

The Standard SDLC



SDLC of This Project

- State Division of Taxation not GIS-enabled, did not see compelling need to track preserved land differently
- Wide array of would-be consumers of the data pressed for a solution
- Statewide GIS coordinating council formed a task force to explore
- Task force did initiation, concept. Then we pulled in a sponsor – state Green Acres program



Stakeholders

- State: Green Acres program “own” the system, will enter and use data
- County/local: land preservation programs will enter data and use for open space inventory & reporting
- NGOs: land conservancies and ordinance holders will contribute data. Trust for Public Land and Ducks Unlimited have been involved in planning since early stages, as have several NJ land conservation orgs.
- Federal: Records will be exported for PAD-US, GAP
- All: Non-sensitive data will be available publicly in a number of forms



Information Modeling

- Task force undertook an expansive process to ensure wide variety of purposes could be served by the database
- Categories – what land to be included
- Definitions – e.g., “preserved,” “open space”
- Attributes

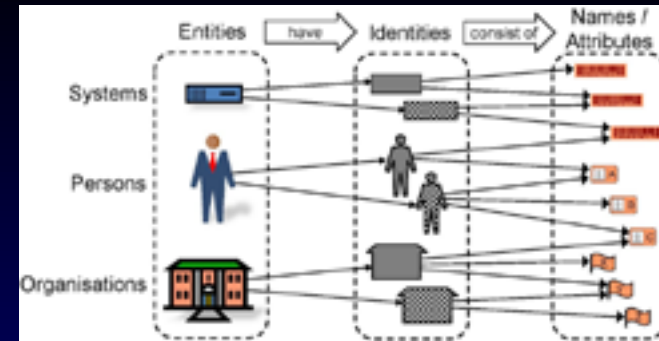
Attributes

- Parcel attributes: parcel ID, acreage, owner, etc.
- Type/use:
 - Agricultural, Horticultural
 - Conservation
 - Historic/Cultural
 - Recreation
- Protection status
- Encumbrances
- Acreage preserved
- Funding sources, amounts
- Date of preservation
- Name/features
- Owner/manager
- Data source and date
- Ancillary documents – Deeds, tax maps, subdivision or site plans, surveys, lease agreements, photos

System Architecture

- Data maintenance will be via web-based GIS app
- ArcGIS Server – feature services
- Javascript app for interface
- Enterprise geodatabase on Oracle
- Documents as attachments in GDB
- Exports and ETL for external uses

Identity Management



folk.io.no

- State has a centralized authentication/ authorization capability for web apps
- Users create accounts
- Role manager in program unit grants authorization to their app
- Preserved land app will only allow the owner of each record to access/edit it

Thank You

Funders:

- NJDEP Green Acres Program
- USGS (PAD-US)

Primary Project Partners:



Contact Info

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