

# mapping green



## infrastructure oasis nyc

matt arnn asa usda forest service new york city

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“ultra urban”



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pressure



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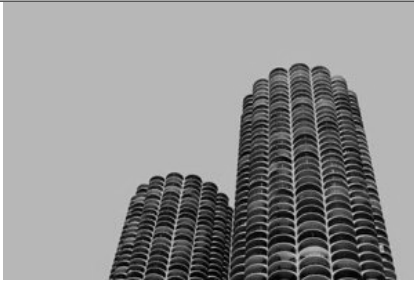
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natural and designed places

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parks

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gardens



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forests



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open spaces



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learning landscapes



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orchards and groves



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botanical gardens



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## recreational landscapes



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## commercial landscapes



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## street trees



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MARC



**DAVEY**  
RESOURCE GROUP

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MARC

**DAVEY**  
RESOURCE GROUP

## What is OASIS?



- The Open Accessible Space Information System, a web-based tool to help locate open space resources in New York City, evaluate potential open spaces like vacant lots or properties, compare neighborhood open space statistics, view the latest aerial photos of the city, and more. ([www.oasisnyc.net](http://www.oasisnyc.net))
- Specifics (what can you do with OASIS):
  - *Create* maps of open space on demand.
  - *Identify* key open-space resources near a preferred location.
  - *Compare* spatial patterns of geographic features.
  - *Calculate* statistics based on open-space patterns.

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## Why OASIS?

- Green infrastructure data inaccessible to communities.
- Independent greening efforts; inefficient replication of open space mapping.
- Large, complex pool of spatial data in NYC.
- Incomplete City data.
- OASIS enables communities to nurture open space with modern technology.

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## What's on OASIS?

Maps .. Aerial Photos .. Census Data..Open Space Resources  
Links to Organizations .. Process Information

### Environmental Data

- NRG Natural Areas Management Plans
- NRG Landcover/Vegetation Mapping
- NRG Environmentally Sensitive Habitats
- USEPA Drainage Basins
- USFWS National Wetlands Inventory
- USGS National Hydrographic Dataset
- NYSDEC Tidal Wetlands
- NYSDEC State Soils & Geology

### Terrain Data

- NYCMAP Topographic Contours
- Topographic Surveys
- USGS DEMs
- USGS Hypsography
- USACE Bathymetry

### Infrastructure Data

- NYCMAP Planimetric Basemap
- NYCMAP Digital Orthophotos
- Parks and other Surveys
- USGS Digital Line Graphs
- NYCDOP LION File

### Regulatory/Administrative Data

- NRG Park Boundaries
- NYCDOP COGIS & LION
- NYSDEC Regulated Freshwater Wetlands
- USGS National Hydrographic Dataset
- USGS Digital Line Graphs

### Landuse & Ownership Data

- NYCDOP COGIS File
- Parklands Database
- RPAD Database



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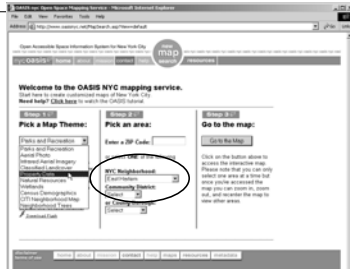
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# OASIS in NYC



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... and more!

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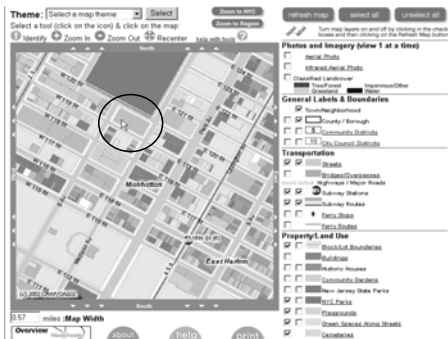
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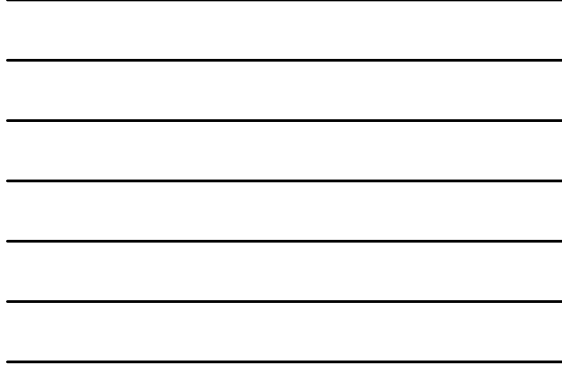
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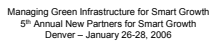
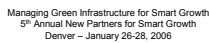
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[illegible][illegible]



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## Neighborhood Tree Inventory



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## Tools



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## Partners



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## OASIS History

- Meeting called by the US Forest Service in late 2000 to coordinate the efforts of:
  - People creating GIS data on open space resources
  - with*
  - People who desire accessibility to this data to improve the quality and quantity of open space throughout New York City.
- Inventory of available data layers done and OASIS website model developed.
- Data collection and modification begins including: standardization for map projection, scale issues explored, and attribute information assessed.
- GROW workshops organized to better define the needs of the target audience: the grassroots, community-based planning and advocacy organizations of New York City.

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## OASIS Charter/Mission

The **New York Open Accessible Space Information System Cooperative (NYC OASIS)** is comprised of private and public sector representatives that seek to develop an accessible information system that helps enhance the stewardship of open space to ensure areas are linked, diverse and sustainable for the benefit of all NYC residents.

### The purpose of the OASIS Cooperative is to:

Work together in harmony to support projects and initiatives that contribute to developing and sustaining an accessible, useable information system;

- Work together in harmony to support projects and initiatives that contribute to developing and sustaining an accessible, useable information system;
- Provide leadership through facilitation of groups and ideas and build a team approach to developing the system;
- Share existing resources, skills and expertise; and
- Strive to develop new resources to achieve the vision and ensure sustainability of the information system.

The OASIS participants agree to designate one representative to the NYC OASIS Steering Group. The representative will act on its behalf and, when possible, provide technical assistance and support of project planning and implementation.

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## OASIS Data Vision

### How Government Agencies see the City – done and being updated

- Official New York City Basemap including aerial photos
- Real Property Assessment Data (RPAD) from Dept. of Finance
- Wetlands and Federal lands from Federal data providers

### What's actually there – some included, some being collected

- Community Gardens from the CENYC
- Corrected land use for some Community Boards from CENYC

### Visions and plans of how communities COULD be – need the participation of more organizations

- Plans from Community based organizations on what they would like their community to look like

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## Data Providers

- Work with OASIS team to provide data that is compatible with the OASIS interface.
- Provide accurate and timely updates as OASIS expanded.
- Develop, or help find funding and staff to develop, attribute information to make the data more useful and informative to the OASIS users.
- Seek funding for collecting and processing data that would be a useful addition to OASIS.

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## Tech Advisors/Supporters



- Help develop the OASIS mapping tools.
- Advise on the necessary hardware and software for a complex interactive map project
  - ✓ ESRI was key early supporter with vision and software
- Provide staff time and computers for demonstrations and trainings.

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## Staying in touch with OASIS Users

- Relationships developed through the GROW workshops.
- Supporting open relationships with groups using website for community education – such as Open Road and New Yorkers for Parks.
- Soliciting feedback via the OASIS website.



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## Prototype

- **Organizational participation**
  - ✓ disparate agencies, organizations, and individuals work together
- **Information delivery**
  - ✓ Reach over 1 million users per year with OASIS maps and data sets.
  - ✓ Thousands of students trained in basic mapping and natural resource inventory techniques.
  - ✓ Forum for residents to make observations about open space issues
  - ✓ Primary delivery of open space and green infrastructure information to schools, libraries and community technical centers.
  - ✓ Groups continue to meet regularly to plan projects ...



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## How to build a Community GIS

- Introduce a project concept
- Get groups to the table
- Work collectively to outline a vision, mission and define a target audience
- Create subcommittees to manage tasks
- ✓ **Vision Team**
  - 'Own' The User Experience
- ✓ **Resource Team**
  - Web Design
  - Map Design
  - GIS Application
  - GIS Database
- 5. Look for near term successes
- 6. Sell it and Tell it

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## Get groups to the table

- Give them a reason to contribute
- Give them a voice in the process
- Share credit
- Leadership must not compete with partnership.

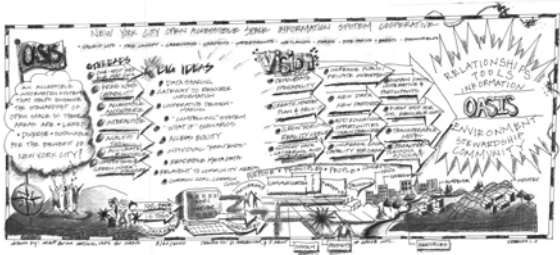
### Benefits of Data Sharing

- Encourages cross-disciplinary use of the data to enhance decision support
- Discourages redundant data collection
- Promotes standardization in data collection
- Encourages data maintenance and updates

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## Create a vision statement



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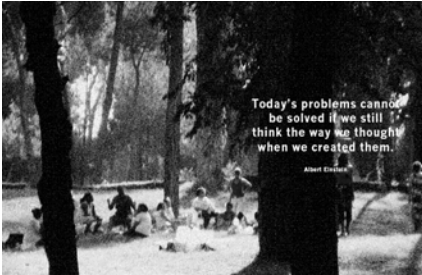


## Next Steps

- Strategic planning for sustainability
- Documenting "lessons learned" and sharing with other cities
- Developing educational programming using OASIS to teach map-making/reading skills, urban planning basics, and more
- Providing more robust feedback mechanisms
- Leveraging new technologies (web services, open source, Google Maps) to link systems together

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