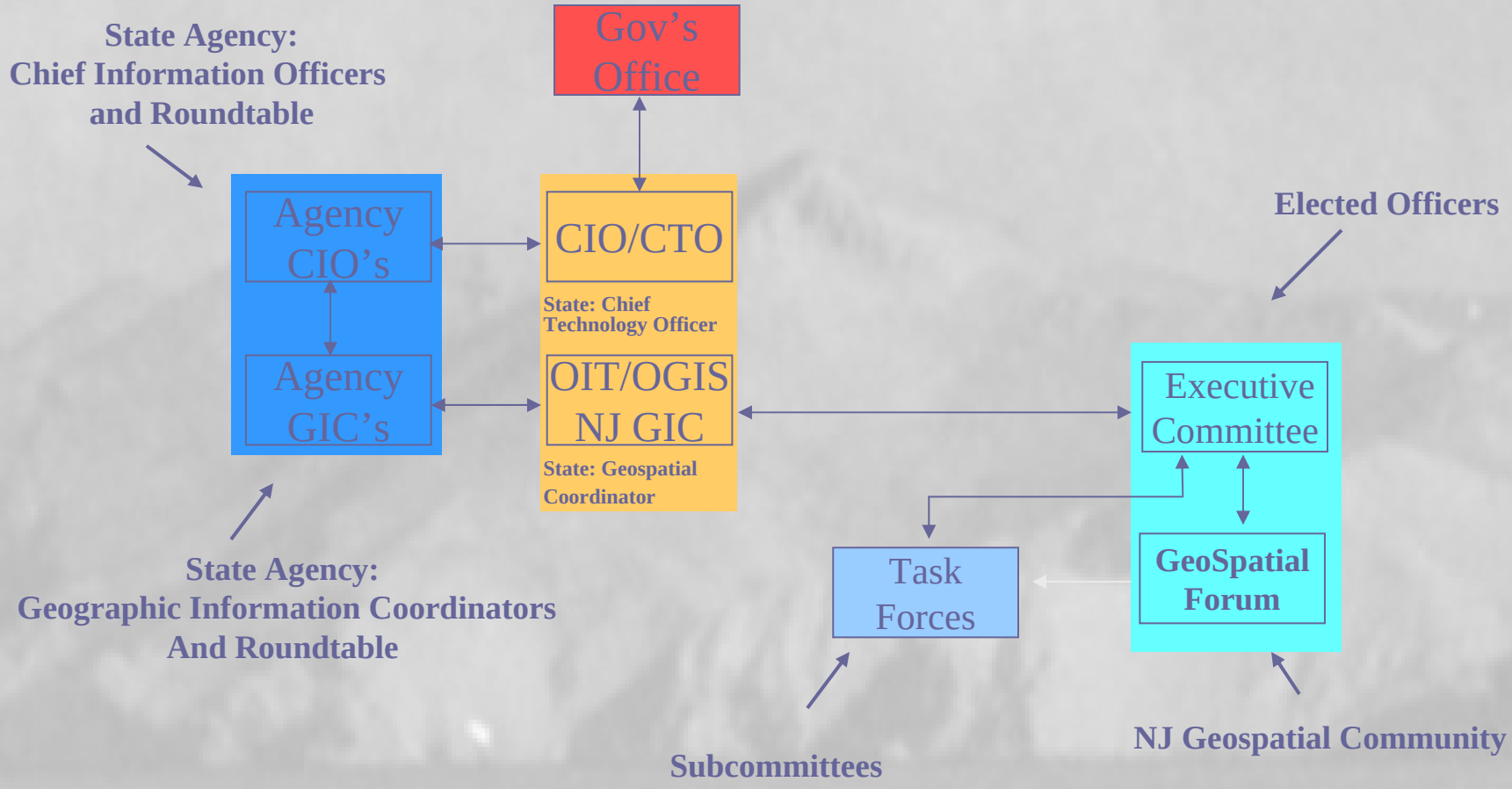
Geospatial Information Technology Governance Model



Geospatial Information Technology Governance Model

Adopted by CIO-Roundtable January 28th, 2006; Presented to Forum, February 10, 2006.

"Seeking Spatial Intelligence with NJ-GeoWeb"

Geographic Information Technology by the New Jersey Department of Environmental Protection

NJDEP GIS - Bureau of Geographic Information Systems - Microsoft Internet Explorer

www.nj.gov/dep/gis

njhome | citizen | business | government | services A to Z | departments

newjersey department of environmental protection

GIS bureau of geographic information systems

"Mapping the Present to Protect New Jersey's Future"

- Interactive Mapping
  - i-MapNJ ArcIntelligence
  - i-MapNJ Child Care Centers
  - i-MapNJ DEP
  - i-MapNJ Geology
  - i-MapNJ NJEMS
  - i-Map Delaware River Basin
- Downloads
- Standards
- GPS
- Resources
- Training
- FAQs

nnual NJDEP Mapping Contest

Wednesday, April 25, 2007

at the Trenton War Memorial

And the winners are ...

Send Us Your Feedba

Monday, June 11, 2007

June 2007

Sun	Mon	Tue	Wed	Thu
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28

meetings articles

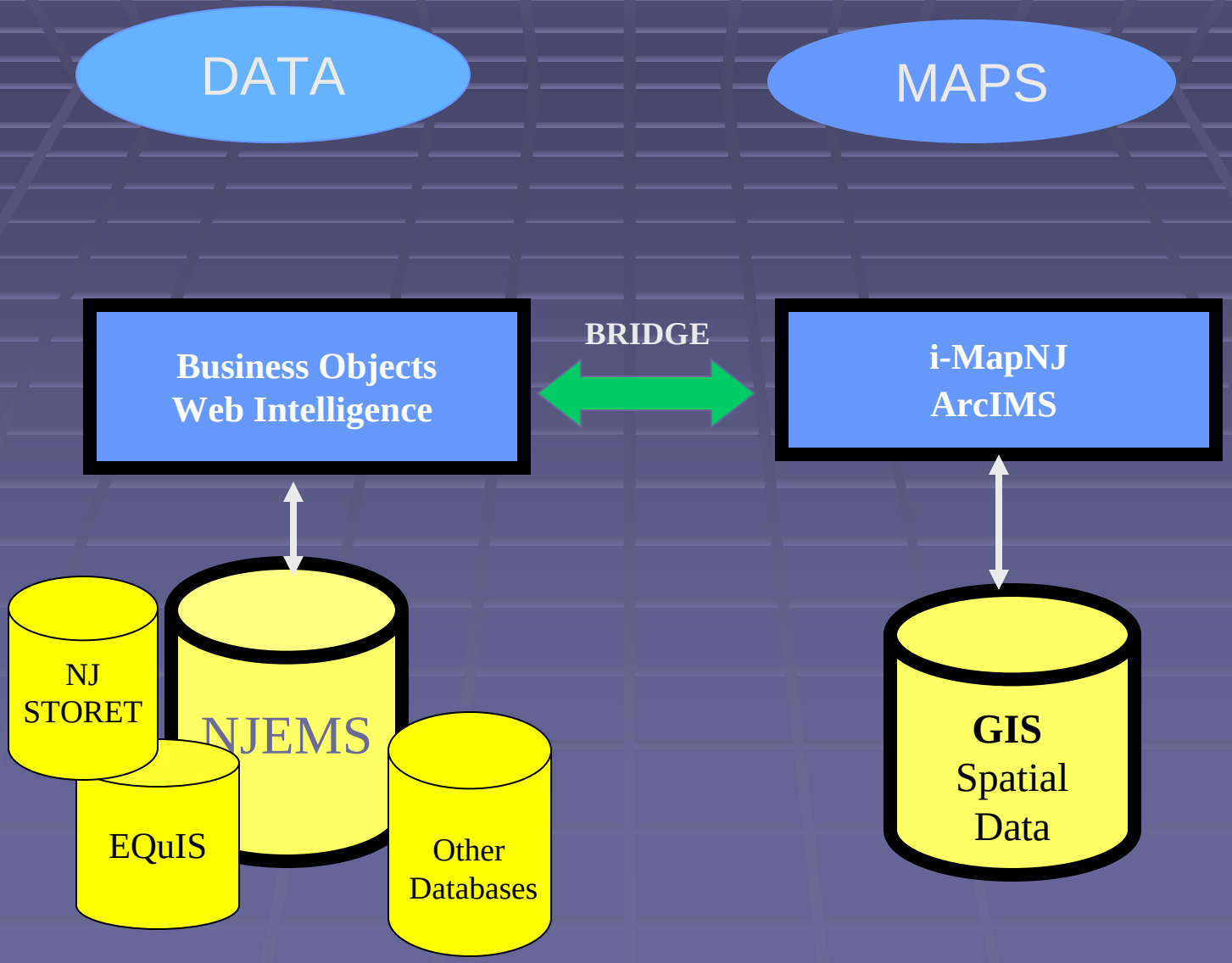
View Events Calendar

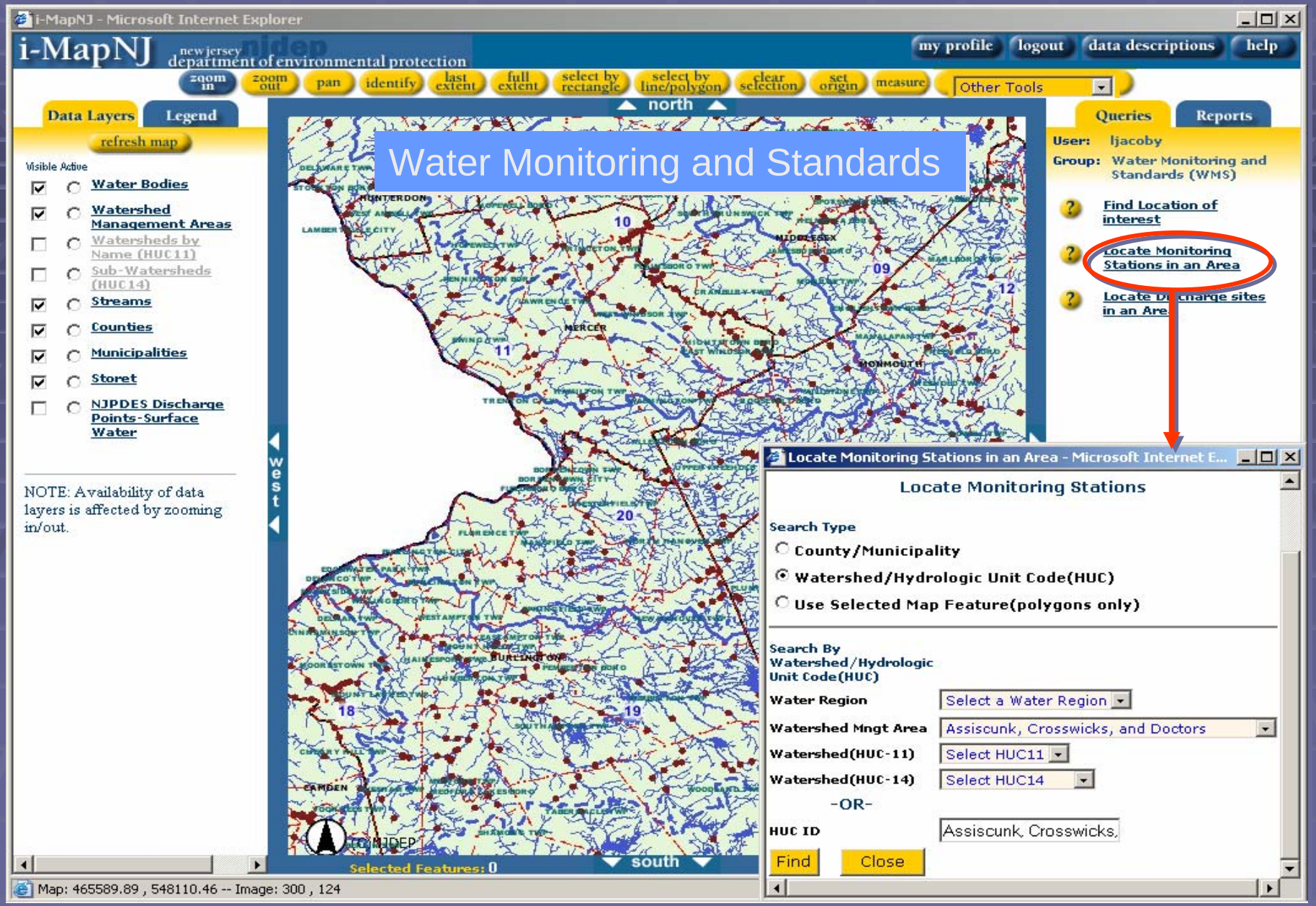
The data server for DEPView has cha
tcshared.
DEPView Users:

(Internet Explorer 6.x or higher strongly recommended).

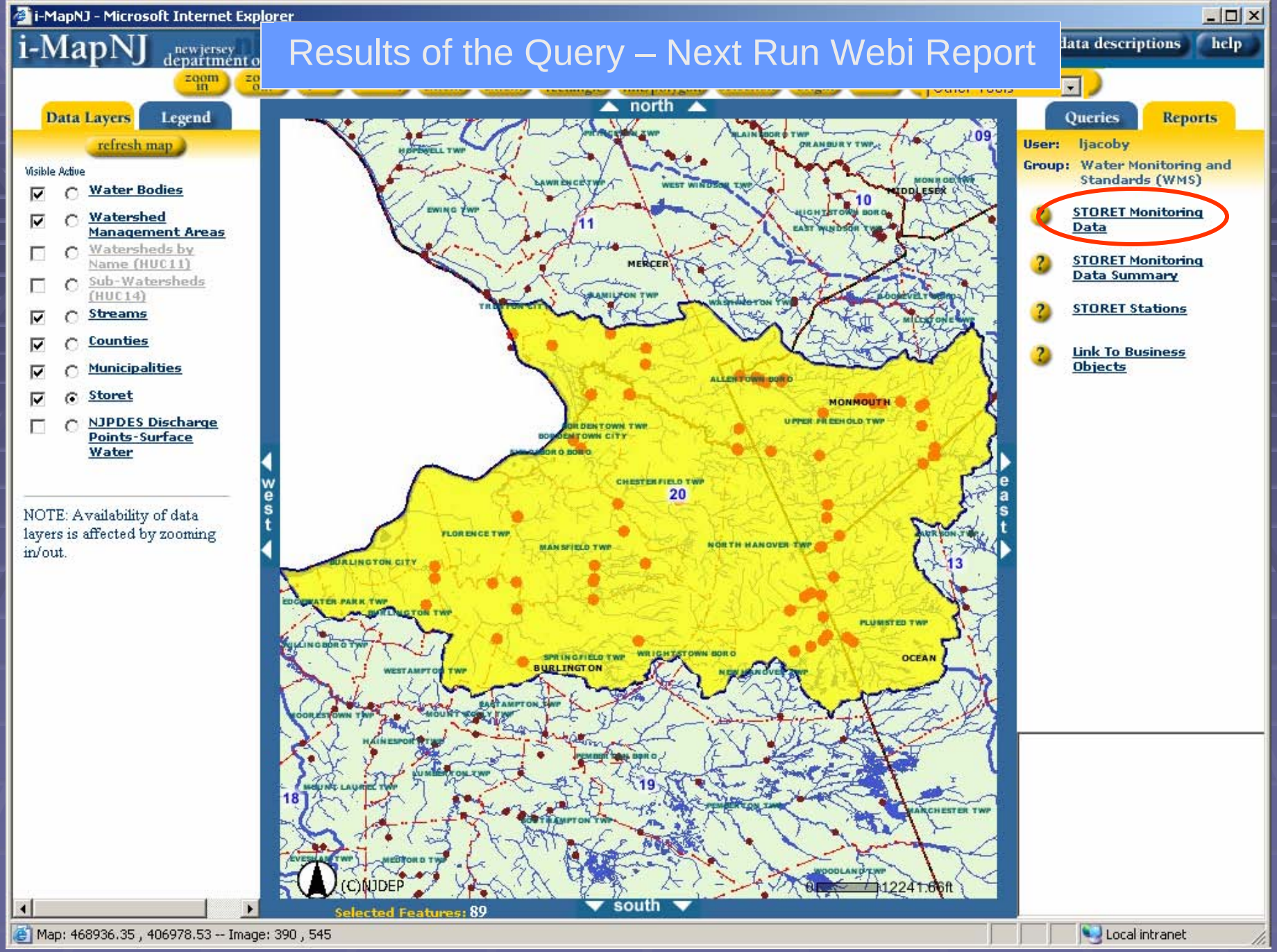
contact bgis | contact dep | privacy notice | legal statement | acces

i-MAPNJ ArcIntelligence

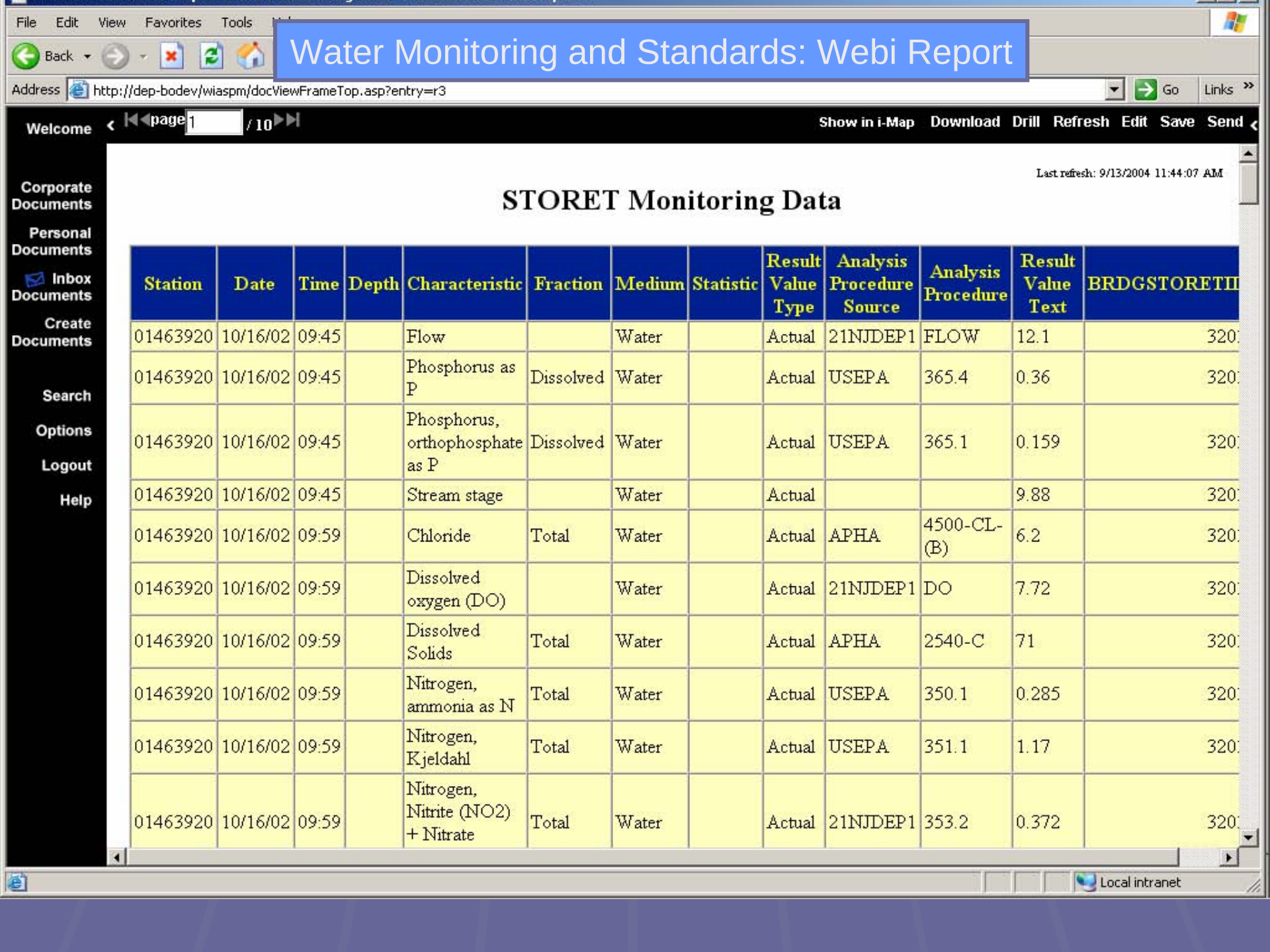



i-MapNJ - Microsoft Internet Explorer
i-MapNJ
new jersey department of environmental protection
my profile
logout
data descriptions
help
zoom in
zoom out
pan
identify
last extent
full extent
select by rectangle
select by line/polygon
clear selection
set origin
measure
Other Tools
Data Layers
Legend
refresh map
Visible Active
Water Bodies
Watershed Management Areas
Watersheds by Name (HUC11)
Sub-Watersheds (HUC14)
Streams
Counties
Municipalities
Storet
NJPDES Discharge Points-Surface Water
NOTE: Availability of data layers is affected by zooming in/out.
north
west
south
Water Monitoring and Standards
Selected Features: 0
Queries
Reports
User: ljacoby
Group: Water Monitoring and Standards (WMS)
Find Location of interest
Locate Monitoring Stations in an Area
Locate Discharge sites in an Area
Locate Monitoring Stations in an Area - Microsoft Internet E...
Locate Monitoring Stations
Search Type
County/Municipality
Watershed/Hydrologic Unit Code(HUC)
Use Selected Map Feature(polygons only)
Search By Watershed/Hydrologic Unit Code(HUC)
Water Region
Select a Water Region
Watershed Mngt Area
Assiscunk, Crosswicks, and Doctors
Watershed(HUC-11)
Select HUC11
Watershed(HUC-14)
Select HUC14
-OR-
HUC ID
Assiscunk, Crosswicks,
Find
Close
Map: 465589.89 , 548110.46 -- Image: 300 , 124

Results of the Query – Next Run Webi Report



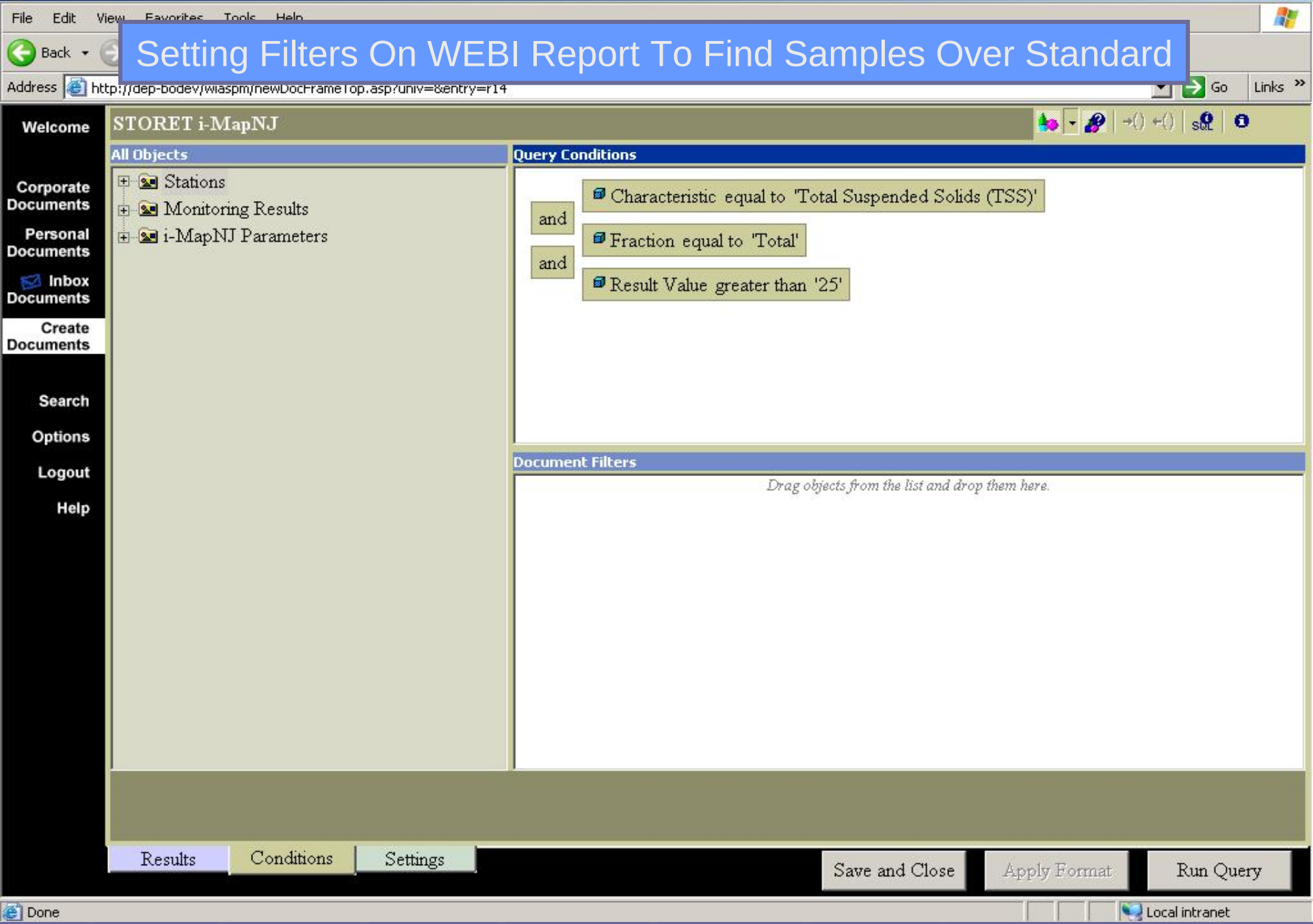
Water Monitoring and Standards: Webi Report

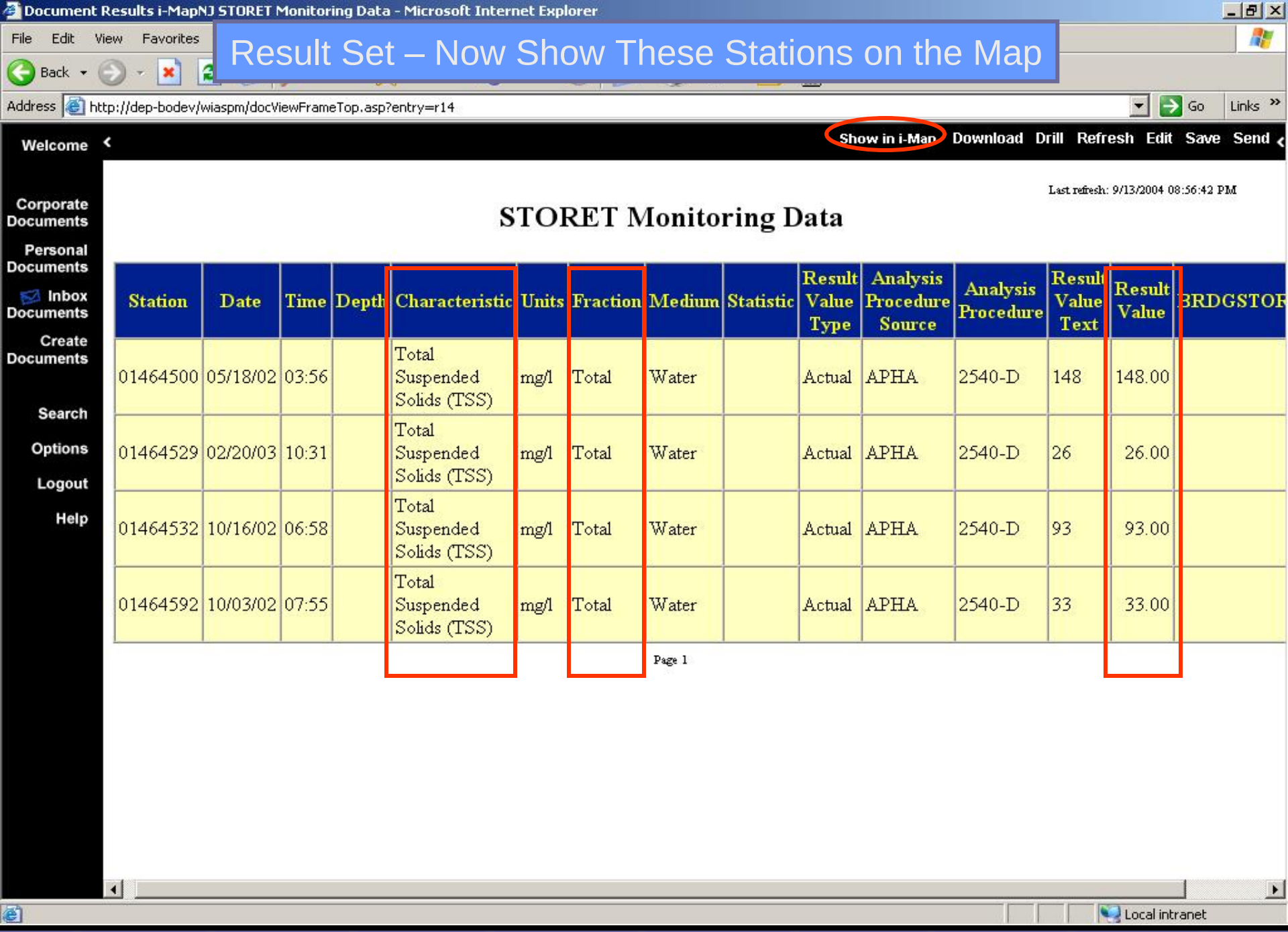


STORET Monitoring Data

Station	Date	Time	Depth	Characteristic	Fraction	Medium	Statistic	Result Value Type	Analysis Procedure Source	Analysis Procedure	Result Value Text	BRDGSTORETID
01463920	10/16/02	09:45		Flow		Water		Actual	21NJDEP1	FLOW	12.1	320
01463920	10/16/02	09:45		Phosphorus as P	Dissolved	Water		Actual	USEPA	365.4	0.36	320
01463920	10/16/02	09:45		Phosphorus, orthophosphate as P	Dissolved	Water		Actual	USEPA	365.1	0.159	320
01463920	10/16/02	09:45		Stream stage		Water		Actual			9.88	320
01463920	10/16/02	09:59		Chloride	Total	Water		Actual	APHA	4500-CL-(B)	6.2	320
01463920	10/16/02	09:59		Dissolved oxygen (DO)		Water		Actual	21NJDEP1	DO	7.72	320
01463920	10/16/02	09:59		Dissolved Solids	Total	Water		Actual	APHA	2540-C	71	320
01463920	10/16/02	09:59		Nitrogen, ammonia as N	Total	Water		Actual	USEPA	350.1	0.285	320
01463920	10/16/02	09:59		Nitrogen, Kjeldahl	Total	Water		Actual	USEPA	351.1	1.17	320
01463920	10/16/02	09:59		Nitrogen, Nitrite (NO2) + Nitrate	Total	Water		Actual	21NJDEP1	353.2	0.372	320

Setting Filters On WEBI Report To Find Samples Over Standard





Result Set – Now Show These Stations on the Map

Document Results i-MapNJ STORET Monitoring Data - Microsoft Internet Explorer

File Edit View Favorites

Back

Address http://dep-bodev/wiaspm/docViewFrameTop.asp?entry=r14 Go Links

Welcome

Show in i-Map Download Drill Refresh Edit Save Send

Corporate Documents

Personal Documents

Inbox Documents

Create Documents

Search

Options

Logout

Help

Last refresh: 9/13/2004 08:56:42 PM

STORET Monitoring Data

Station	Date	Time	Depth	Characteristic	Units	Fraction	Medium	Statistic	Result Value Type	Analysis Procedure Source	Analysis Procedure	Result Value Text	Result Value	BRDGSTOR
01464500	05/18/02	03:56		Total Suspended Solids (TSS)	mg/l	Total	Water		Actual	APHA	2540-D	148	148.00	
01464529	02/20/03	10:31		Total Suspended Solids (TSS)	mg/l	Total	Water		Actual	APHA	2540-D	26	26.00	
01464532	10/16/02	06:58		Total Suspended Solids (TSS)	mg/l	Total	Water		Actual	APHA	2540-D	93	93.00	
01464592	10/03/02	07:55		Total Suspended Solids (TSS)	mg/l	Total	Water		Actual	APHA	2540-D	33	33.00	

Page 1

Local intranet

Visible Active

- [x] Water Bodies
- [x] Watershed Management Areas
- [ ] Watersheds by Name (HUC11)
- [ ] Sub-Watersheds (HUC14)
- [x] Streams
- [x] Counties
- [x] Municipalities
- [x] Storet
- [ ] NJPDES Discharge Points-Surface Water

NOTE: Availability of data layers is affected by zooming in/out.

Selected Features: 4

Queries | Reports

User: ljacoby

Group: Water Monitoring and Standards (WMS)

- Find Location of interest
- Locate Monitoring Stations in an Area
- Locate Discharge sites in an Area

NJ-GeoWeb

A New Vision for Seeking Spatial Intelligence

Integrating customized GIS and analysis tools
with enterprise databases for
improved decision-making
on the Internet

What is: NJ-GeoWeb

- DEP's next generation i-MapNJ on the Interent. Replaces ArcIntelligence on the intranet.
- Uses profiles (roles) that access default data layers and reports (ie. Child Care, What's in My Neighborhood, Smart Growth, Business Viewer…)
- Allows Internet users to view, interact with, analyze and submit points, lines and polygons
- Links to departmental databases (DataMiner, eNJEMS, etc).
- Uses "enterprise" data from all Agencies (and serves from the Web)
- Links to external services on the web.
- Working with OIT make NJ-GeoWeb a state agency resource.

“NJ-GeoWeb”

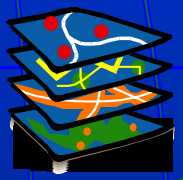
Permitting
Compliance
Enforcement

Surveillance
Inspections
ePermits

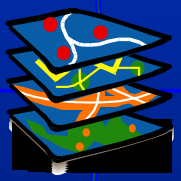
Clean & Plentiful Water

Water/Sewer Infrastructure
Water Allocation
Storm Water Runoff
Monitoring

What’s in My Backyard

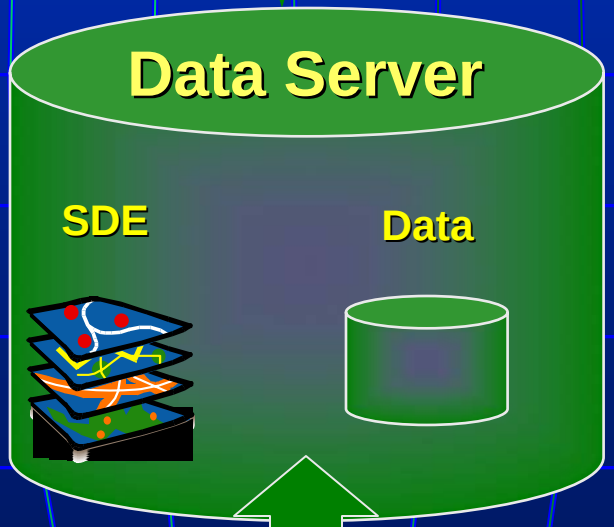


Regulated Sites
Incident Mgmt
Flood Mapping
Endangered Species



Sustainable
Growth

Align Economic and Env. Goals
Env. Sensitive Areas
Green Technologies

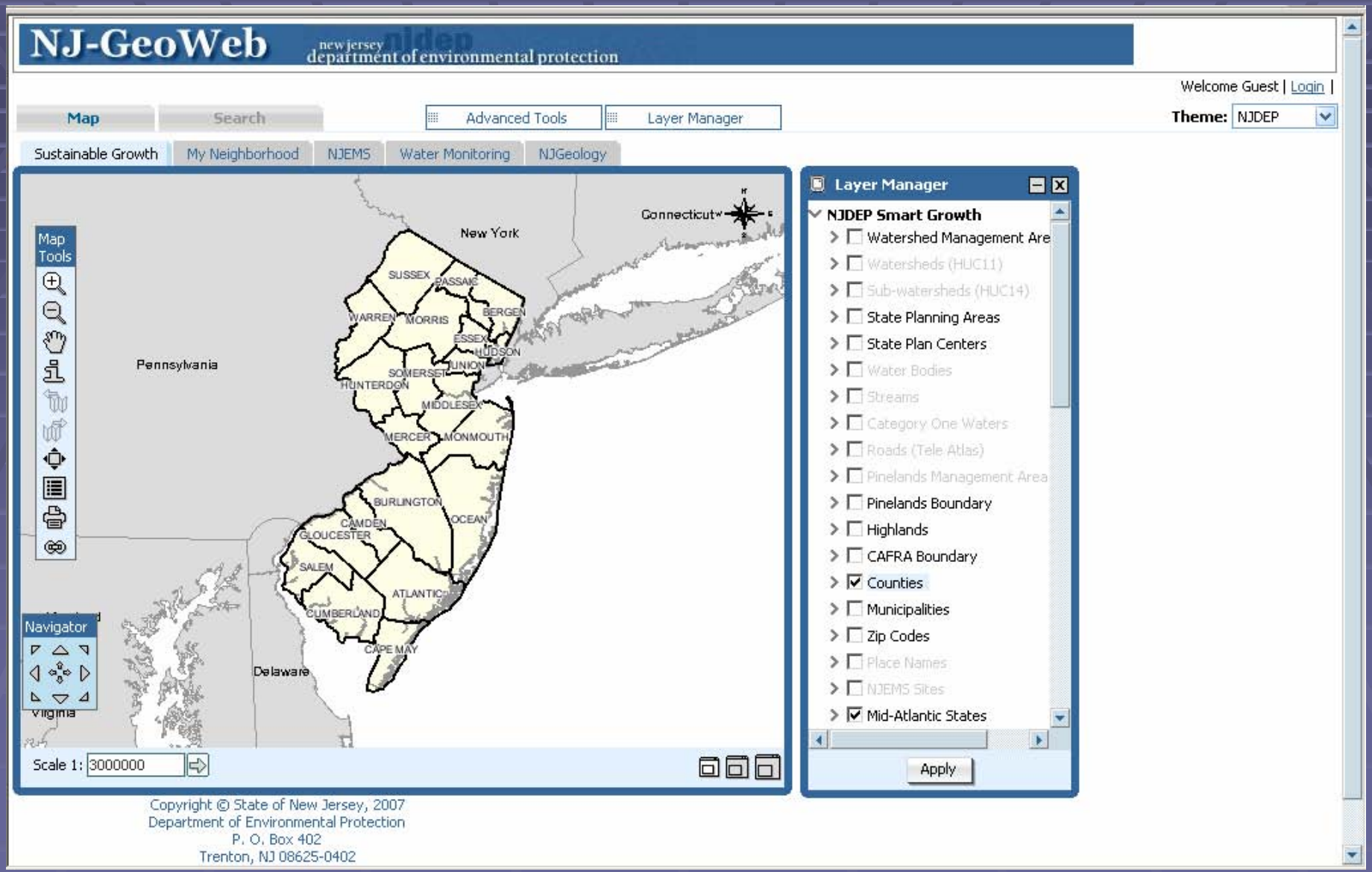


Taking care of Business

Economic Incentives
Employment Info
Revitalize and Redevelop

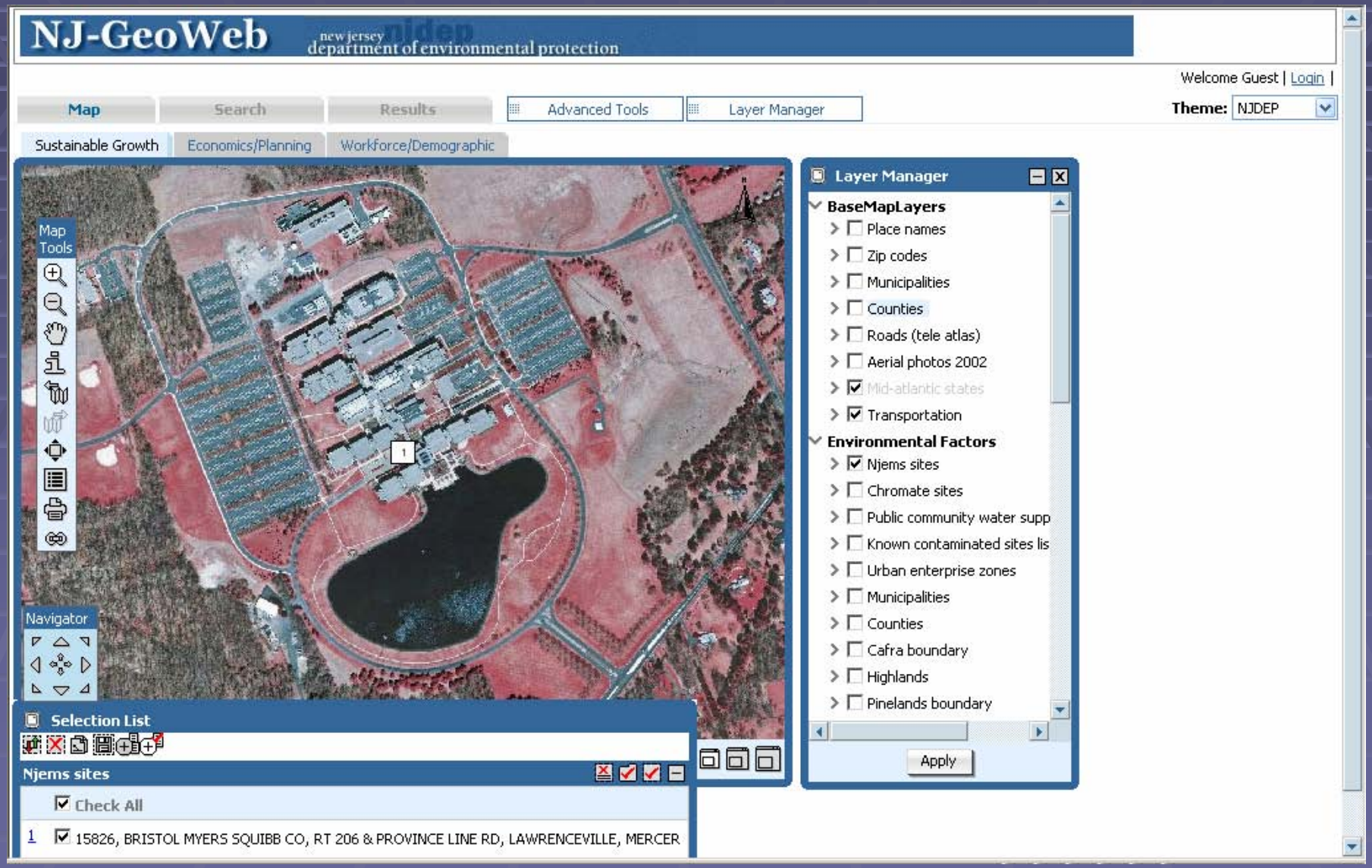
L.awrence Thornton, NJDEP

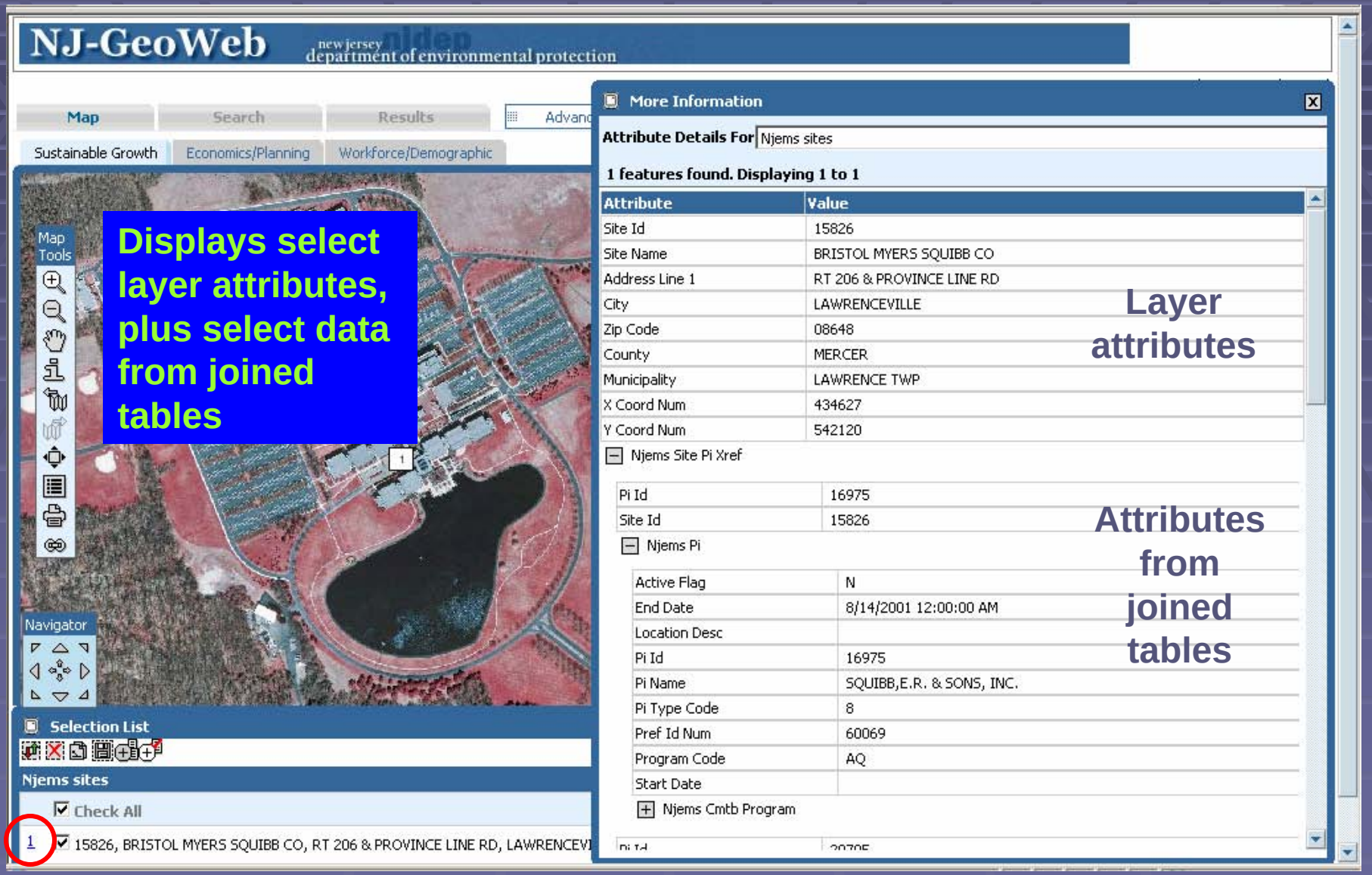
NJ-GeoWeb…….. a vanilla prototype



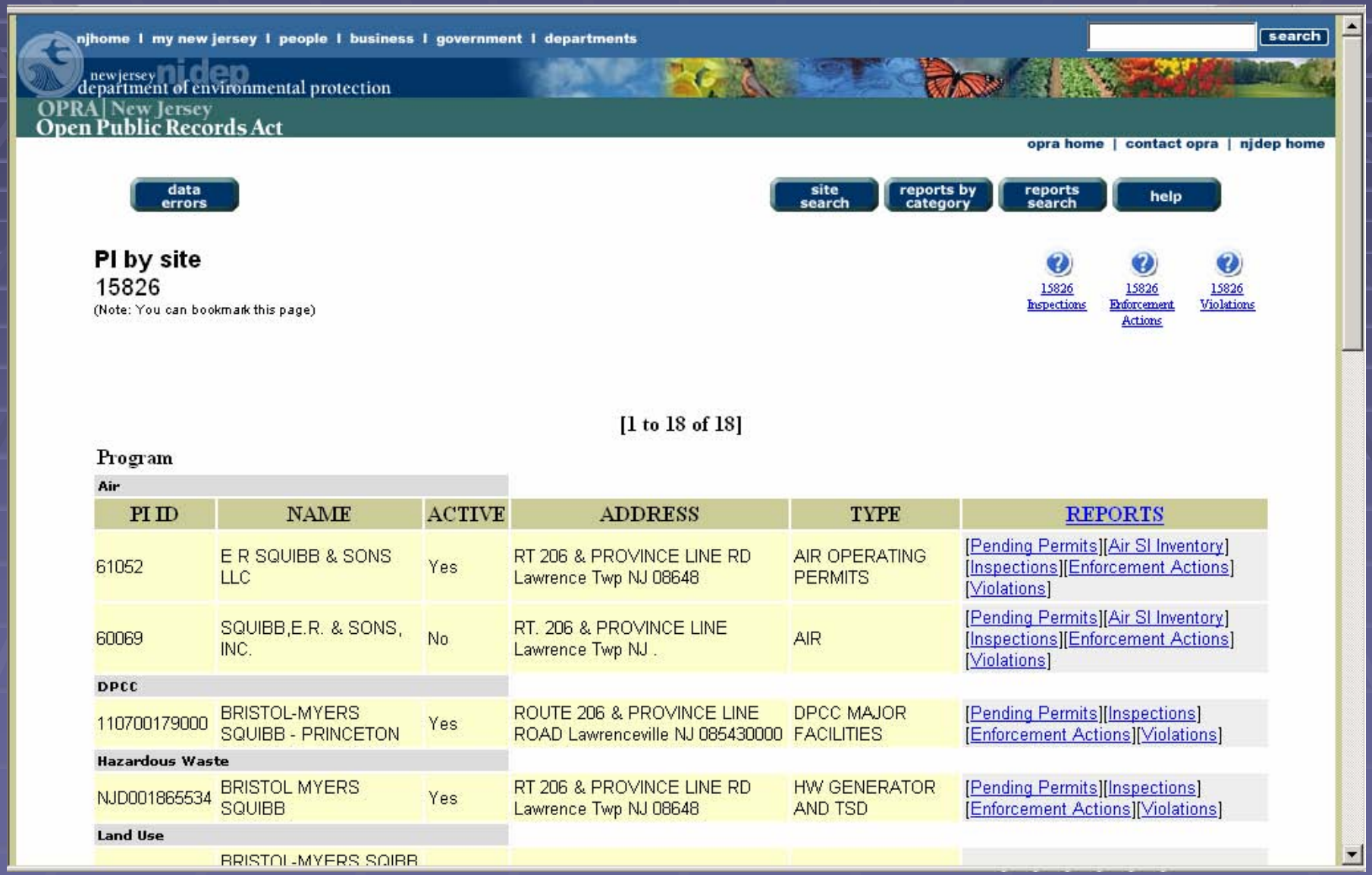
Search Wizard Functionality to Get User to Location or Area of Interest

Search Result




NJ-GeoWeb
new jersey department of environmental protection
njdep
Map
Search
Results
Sustainable Growth
Economics/Planning
Workforce/Demographic
Map Tools
Navigator
Displays select layer attributes, plus select data from joined tables
Selection List
Njems sites
Check All
1
15826, BRISTOL MYERS SQUIBB CO, RT 206 & PROVINCE LINE RD, LAWRENCEVI
More Information
Attribute Details For Njems sites
1 features found. Displaying 1 to 1
Attribute
Value
Site Id 15826
Site Name BRISTOL MYERS SQUIBB CO
Address Line 1 RT 206 & PROVINCE LINE RD
City LAWRENCEVILLE
Zip Code 08648
County MERCER
Municipality LAWRENCE TWP
X Coord Num 434627
Y Coord Num 542120
Njems Site Pi Xref
Pi Id 16975
Site Id 15826
Njems Pi
Active Flag N
End Date 8/14/2001 12:00:00 AM
Location Desc
Pi Id 16975
Pi Name SQUIBB,E.R. & SONS, INC.
Pi Type Code 8
Pref Id Num 60069
Program Code AQ
Start Date
Njems Cmtb Program
Layer attributes
Attributes from joined tables

NJDEP Data Miner Report Program Interests



njhome | my new jersey | people | business | government | departments

search

new jersey department of environmental protection

OPRA | New Jersey Open Public Records Act

opra home | contact opra | njdep home

data errors | site search | reports by category | reports search | help

PI by site

15826

(Note: You can bookmark this page)

15826 Inspections | 15826 Enforcement Actions | 15826 Violations

[1 to 18 of 18]

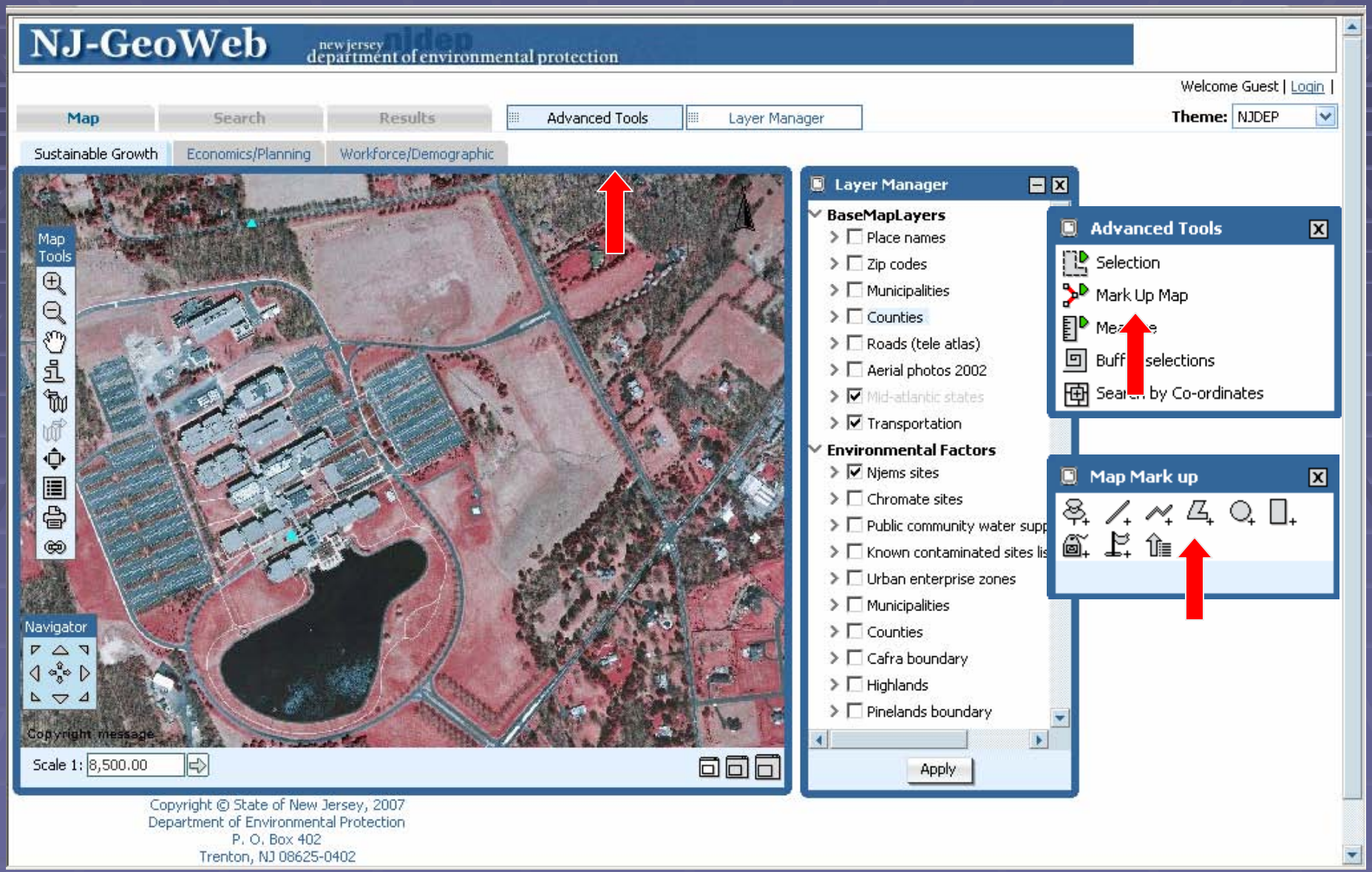
Program

PI ID	NAME	ACTIVE	ADDRESS	TYPE	REPORTS
Air					
61052	E R SQUIBB & SONS LLC	Yes	RT 206 & PROVINCE LINE RD Lawrence Twp NJ 08648	AIR OPERATING PERMITS	[Pending Permits][Air SI Inventory] [Inspections][Enforcement Actions] [Violations]
60069	SQUIBB,E.R. & SONS, INC.	No	RT. 206 & PROVINCE LINE Lawrence Twp NJ .	AIR	[Pending Permits][Air SI Inventory] [Inspections][Enforcement Actions] [Violations]
DPCC					
110700179000	BRISTOL-MYERS SQUIBB - PRINCETON	Yes	ROUTE 206 & PROVINCE LINE ROAD Lawrenceville NJ 085430000	DPCC MAJOR FACILITIES	[Pending Permits][Inspections] [Enforcement Actions][Violations]
Hazardous Waste					
NJD001865534	BRISTOL MYERS SQUIBB	Yes	RT 206 & PROVINCE LINE RD Lawrence Twp NJ 08648	HW GENERATOR AND TSD	[Pending Permits][Inspections] [Enforcement Actions][Violations]
Land Use					
	BRISTOL-MYERS SQIBB				

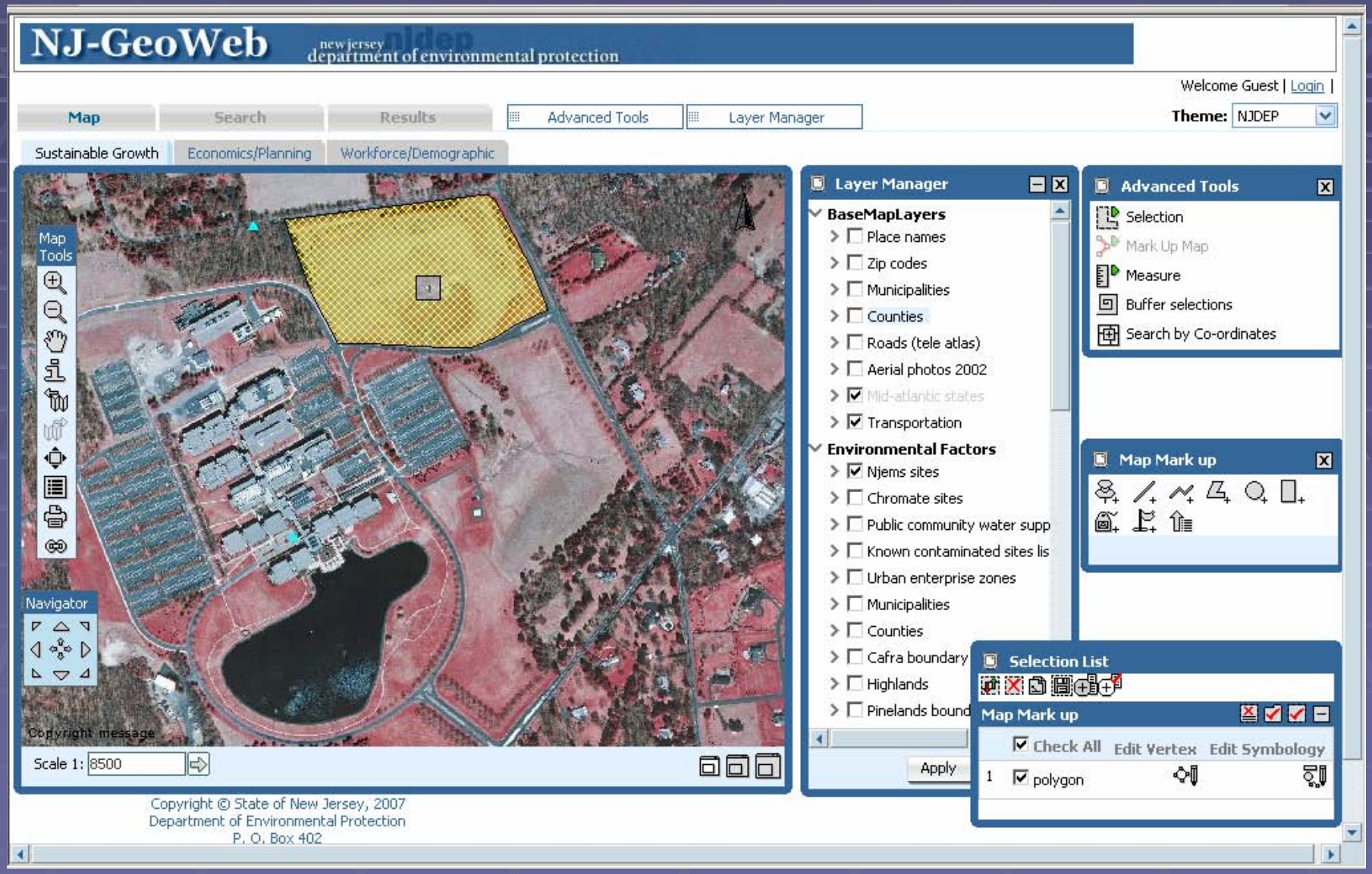
Mark Ups to ArcMap

- Mark ups can also be imported to ArcMap
- Requires install of Orion Tools toolbar in ArcMap
- Enables connection to OnPoint database, and retrieval of saved mark ups as graphics
- Can be saved in ArcMap to a shapefile

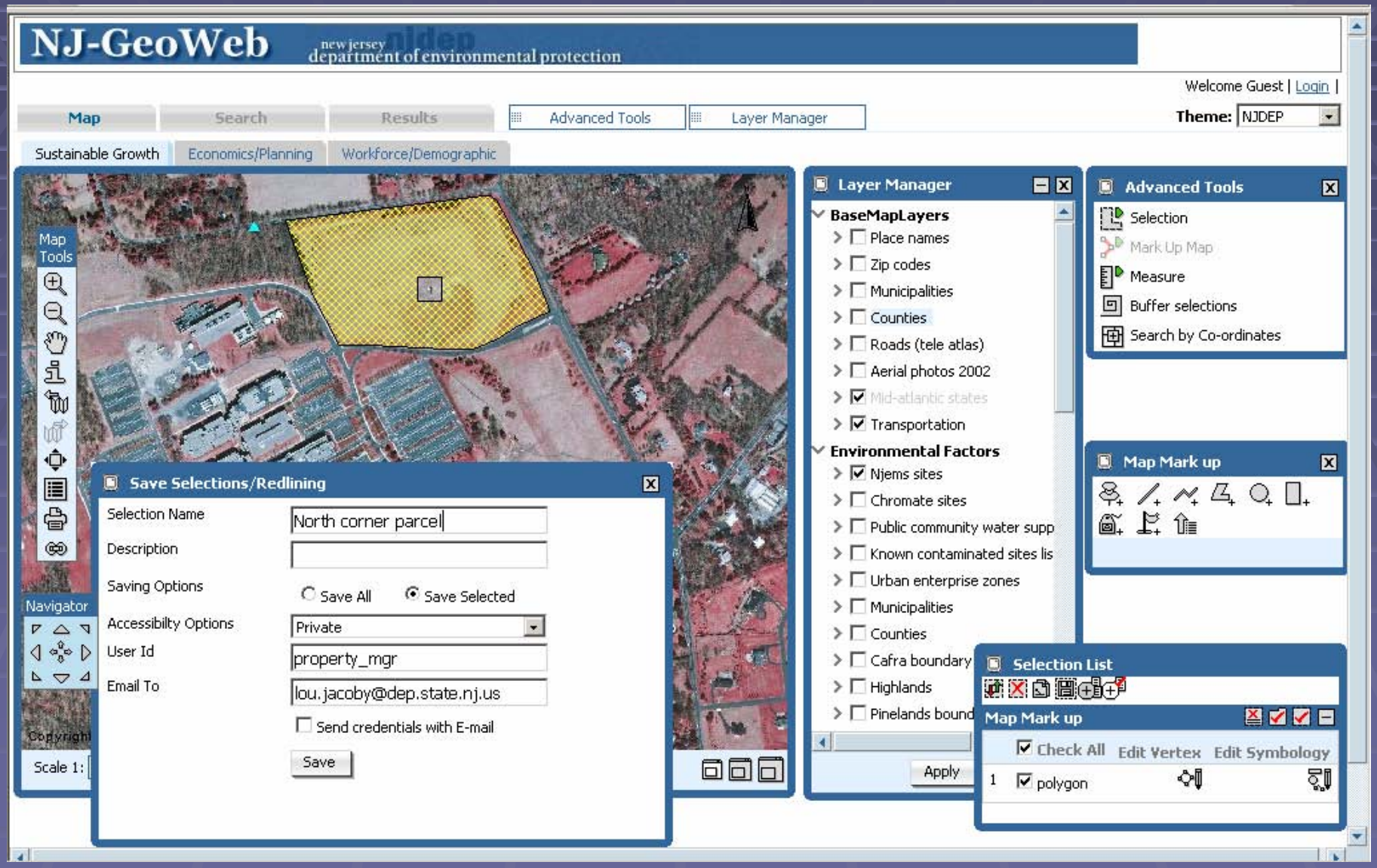
Mark Up Tool Enables Collaboration Between Users



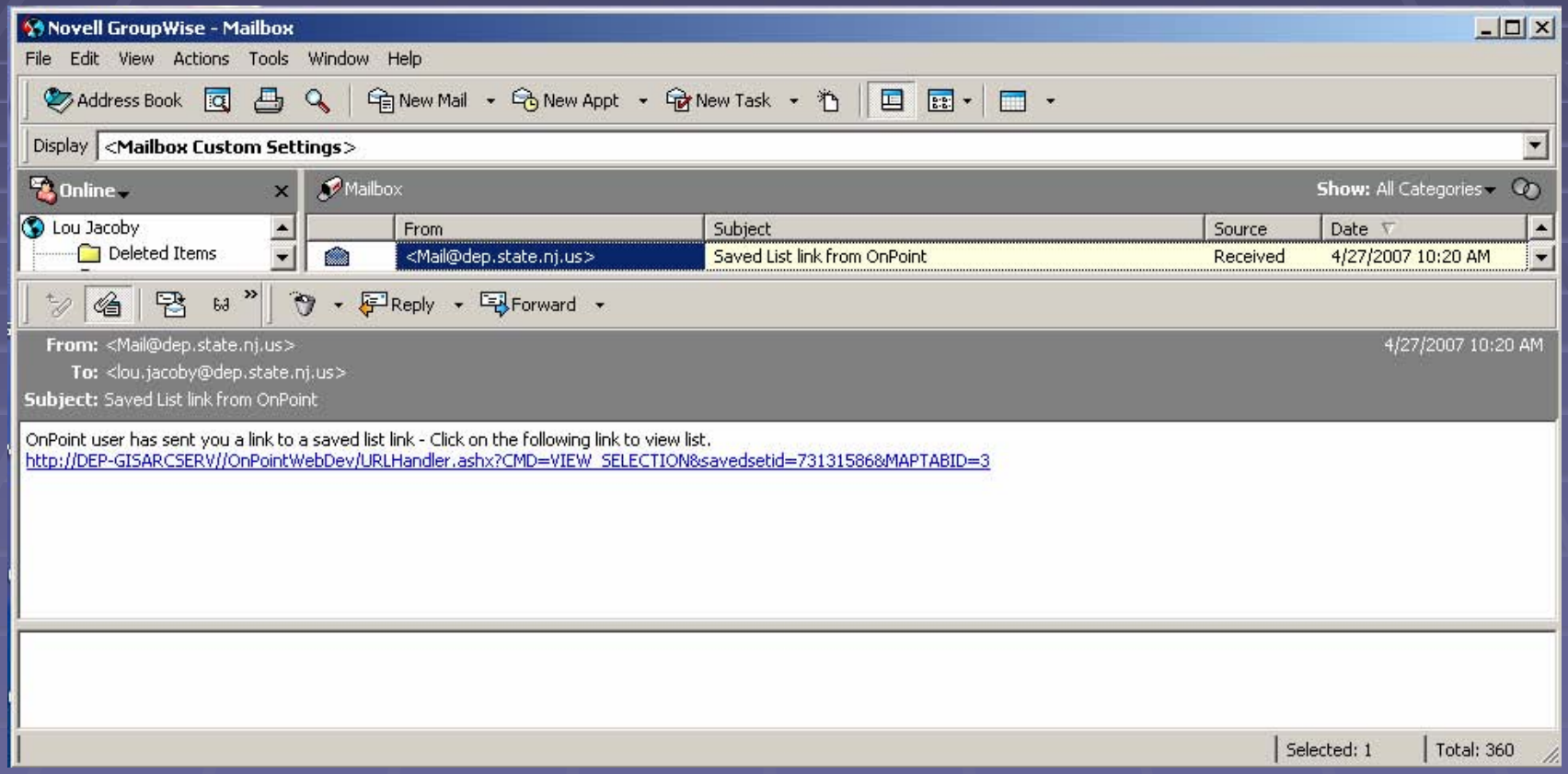
User May Mark Up the Map with Points, Lines, Polys, & Labels



User May Save, Retrieve, or Email Mark Ups to Other Users

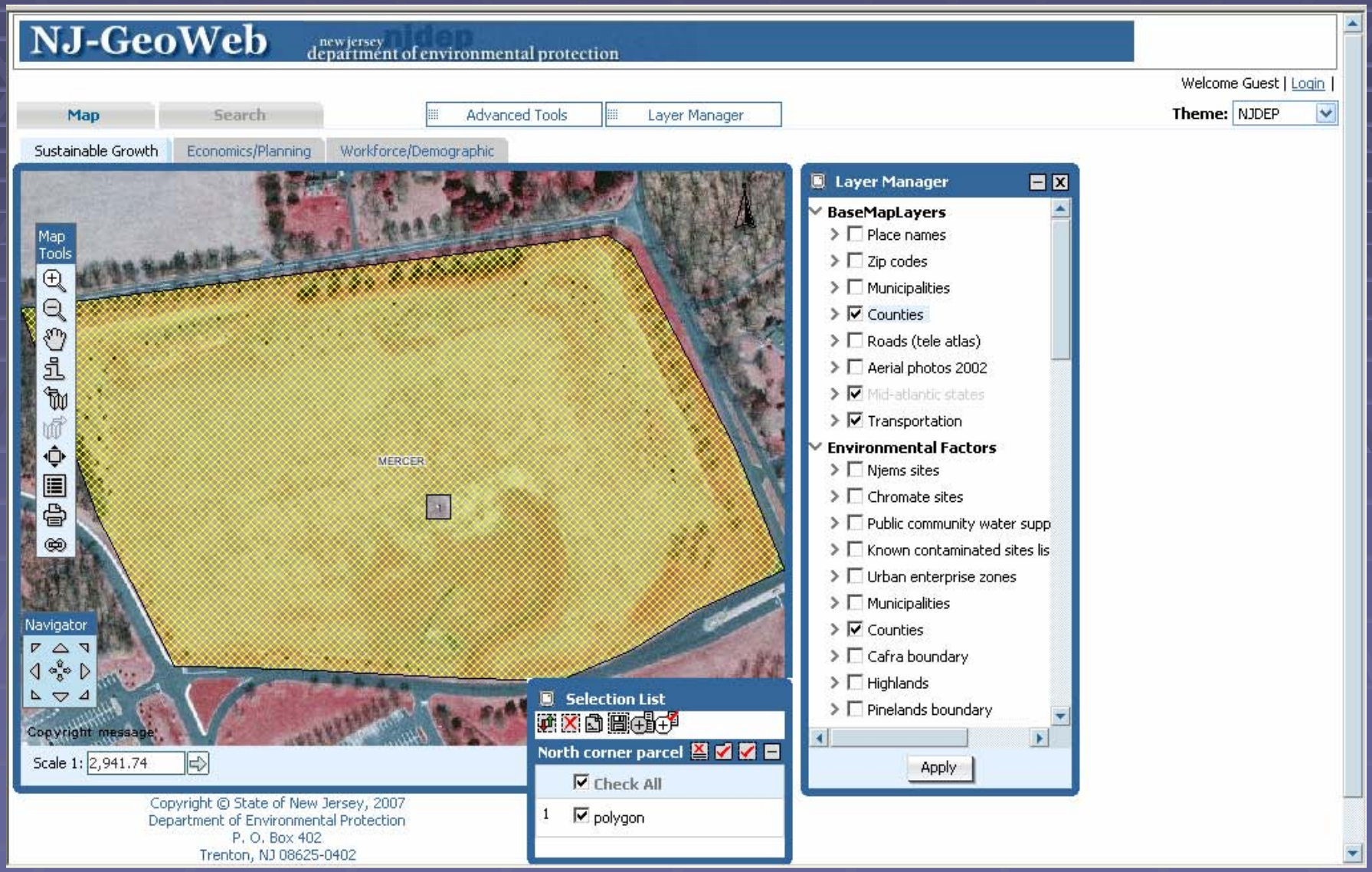


Email Received by Other User Provides URL to Mark Up in NJ-GeoWeb



The URL Launches NJ-GeoWeb

Zoomed to Saved Mark Up



OnPoint Map Viewer - Microsoft Internet Explorer

File Edit View Favorites Tools Help

NJ-GeoWeb

new jersey department of environmental protection

Map Search Results

Theme: NJDEP

My Neighborhood

Advanced Tools | Layer Manager

Scale 1: 5000

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Map Tools

Layer Manager

- Environmental Data
  - Environmental Monitoring
  - Planning Areas
  - Landscape/Natural Heritage
  - Sites and Facilities
  - Water

More Information

Attribute Details For: Fish Index of Biotic Integrity

1 features found. Displaying 1 to 1

Attribute	Value
IbI Site	FIBI099
Waterbody	Wallkill River
Location	Rt 94
Mun	HAMBURG BORO
County	SUSSEX
R1yr	2004
R2yr	
Ibiscr1	46
Ibirar1	Excellent

Print

Documents

Fish IBI

ibi2004acrobat7.pdf

Done

Local intranet

http://dep-gisarcserv/OITOnPoint/webpages/DocumentViewer/DocumentViewer.aspx?doc=ZG9jaWQ9M5ZuYW - Microsoft Internet Explorer
File Edit Go To Favorites Help
Back Search Favorites
Address http://dep-gisarcserv/OITOnPoint/webpages/DocumentViewer/DocumentViewer.aspx?doc=ZG9jaWQ9M5ZuYW1lPVxpYmkyMDA0YWNyb2JhdDcucGRm
Go Links
Save a Copy Select 91% Search Web
Download New Reader Now
Pages
Attachments
Comments

FIBI095- @ Walkill River Excellent Good Fair Poor
Date Sampled - 8/04/2004

	Score
# of Fish Species	5
# of Benthic Insectivorous Species (BI)	5
# of Trout and Centrarchid Species (trout, bass, sunfish, crappie)	5
# of Intolerant Species (IS)	3
Proportion of Individuals as White Suckers	5
Proportion of Individuals as Generalists (carp, creek chub, banded killifish, goldfish, fathead minnow, green sunfish)	5
Proportion of Individuals as Insectivorous Cyprinids (I and BI)	5
Proportion of Individuals as Trout *whichever gives better score	
OR	
Proportion of Individuals as Piscivores (Excluding American Eel)*	3
Number of Individuals in Sample	5
Proportion of Individuals w/disease/anomalies (exoluding blackspot)	5
Total	46

Stream Rating

45-50	Excellent
37-44	Good
29-36	Fair
10-28	Poor

5 of 175
Done
Unknown Zone

http://dep-gisarcserv/OITOnPoint/webpages/DocumentViewer/DocumentViewer.aspx?doc=ZG9jaWQ9MSZuYW - Microsoft Internet Explorer
File Edit Go To Favorites Help
Back Search Favorites
Address http://dep-gisarcserv/OITOnPoint/webpages/DocumentViewer/DocumentViewer.aspx?doc=ZG9jaWQ9MSZuYW1lPVxpYmkyMDA0YWNyb2JhdDcucGRm
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Download New Reader Now
Pages
Attachments
Comments

FIBI099

08-04-2004

Wallkill River

LISTED IN ORDER OF ABUNDANCE FOUND

COMMON NAME	SCIENTIFIC NAME	# FOUND	SIZE RANGE (INCHES)
Longnose Dace	*Rhinichthys cataractae*	262	
Cutlips Minnow	*Exoglossum maxillingua*	43	
Redbreast Sunfish	*Lepomis auritus*	32	3.5 – 6.3
White Sucker	*Catostomus commersoni*	31	
Blacknose Dace	*Rhinichthys atratulus*	25	
Common Shiner	*Notropis cornutus*	21	
Tessellated Darter	*Etheostoma olmstedi*	18	
Spottail Shiner	*Notropis hudsonius*	14	
Creek Chub	*Semotilus atromaculatus*	11	
Margined Madtom	*Noturus insignis*	6	
Pumpkinseed	*Lepomis gibbosus*	6	3.9 – 4.3
Redfin Pickerel	*Esox americanus americanus*	4	5.1 – 7.9
Yellow Bullhead	*Ameiurus natalis*	3	1.2 – 8.3

7 of 175
Done
Unknown Zone

http://dep-gisarcserv/OITOnPoint/webpages/DocumentViewer/DocumentViewer.aspx?doc=ZG9jaWQ9MSZuYW - Microsoft Internet Explorer
File Edit Go To Favorites Help
Back Search Favorites
Address http://dep-gisarcserv/OITOnPoint/webpages/DocumentViewer/DocumentViewer.aspx?doc=ZG9jaWQ9MSZuYW1lPVxpYmkyMDA0YWNyb2JhdDcucGRm
Go Links
Save a Copy Select 91% Search Web
Download New Reader Now
Pages
Attachments
Comments

Species Identified at Walkill River (FIBI099)

(Not to Scale)

John Scarola

Longnose Dace

Jenkins, Burkhead

Cutlips Minnow

John Scarola

Redbreast Sunfish

John Scarola

White Sucker

John Scarola

John Scarola

8 of 175
Done
Unknown Zone

NJ-GeoWeb: Advantages

- Deployed on Intra and Internet
- Integrated Cross Media/Program Data by Department or state government (federal??)
- Customized Views as a Enterprise Function
- GIS Analysis Power (Buffer, Search, Delineate, etc)
- Direct Connect to NJEMS
- Security Tools
- *Integrates with the State's IT Enterprise as a Best Practice*
- *What's Next: Migrate to ArcServer; build more profiles (roles)*

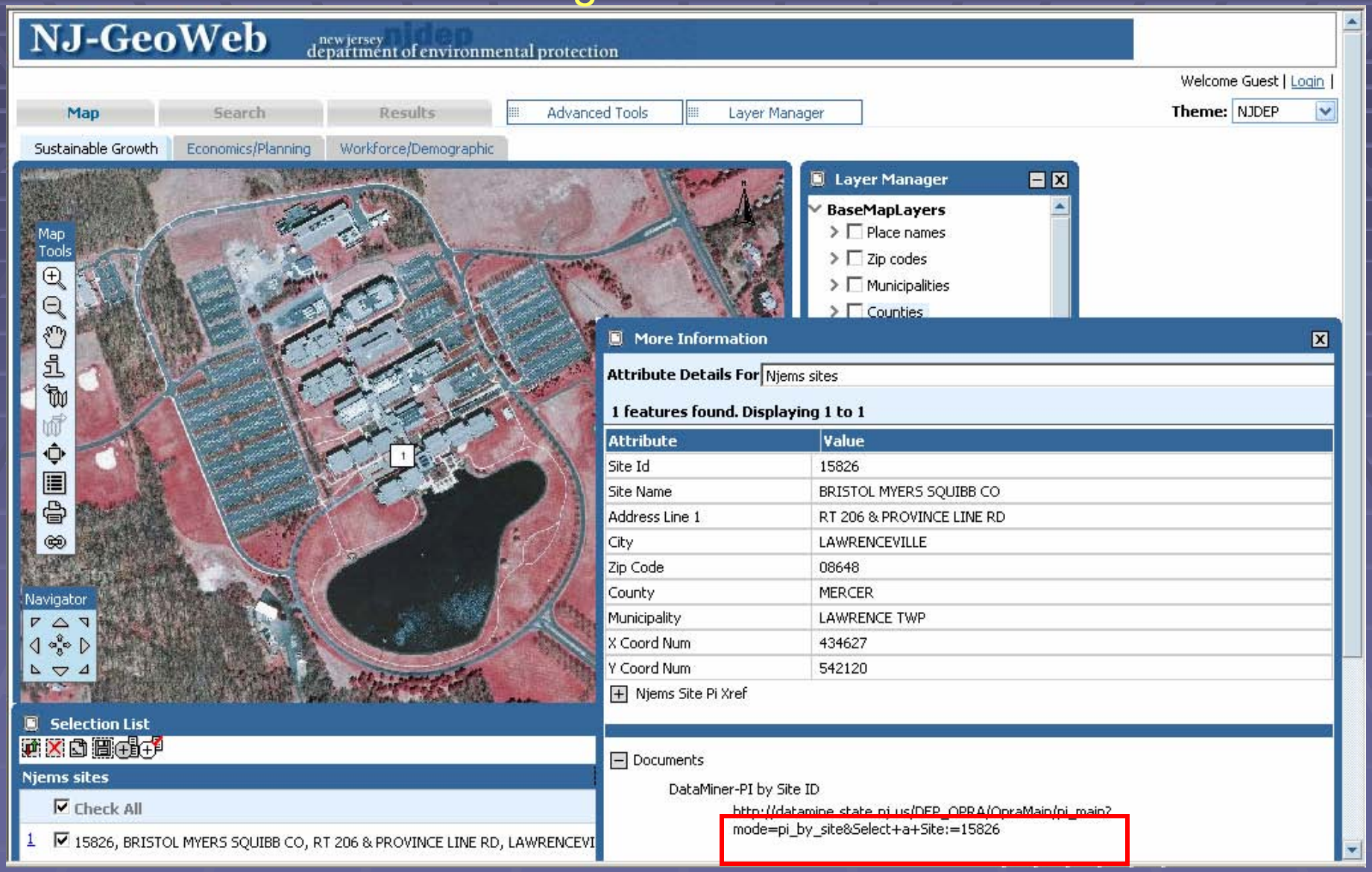
- lawrence.thornton@dep.state.nj.us

- www.nj.gov/dep/gis

NJ-GeoWeb Profiles

- **NJ-GeoWeb will consist of profiles (themes) each focusing on a DEP program or department-wide theme.**
- **NJ-GeoWeb will enables rapid development and deployment of profiles.**
- **Profiles include default spatial data to data from NJEMS, COMPASS, Air/Radiation, etc…), custom searches, and linked reports (Data Miner).**
- **Security allows access to be limited (ie. Water infrastructure)**

Leveraging External Web Pages and Other Documents Providing More Information



OnPoint Map Viewer - Microsoft Internet Explorer

File Edit View Favorites Tools Help

NJ-GeoWeb

new jersey department of environmental protection

Map Search Results

My Neighborhood

Advanced Tools

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Layer Manager

- Environmental D
  - Environme
  - Planning A
  - Landscape
  - Sites and
  - Water
  - Land
  - Base Laye

App

More Information

Attribute Details For NJEMS Sites

1 features found. Displaying 1 to 1

Attribute	Value
Site ID	50686
Site Name	FRANKLIN TRANSMISSION & TIRE CO
Address Line 1	403 RT 23
Address Line 2	
City	FRANKLIN
Zip Code	07416
County	SUSSEX
Municipality	FRANKLIN BORO
X Coord Num	470119
Y Coord Num	833701
Coord Sys	NJ STATE PLANE (NAD83) - USFEET
Coord Type	GPS
Coord Origin	DEP-GIS
Mun	FRANKLIN BORO
Objectid	26309

⊞ Njems Site Pi Xref

Print

⊟ Documents

Data Miner - PI by Site ID

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/j
mode=pi_by_site&Select+a+Site:=50686

Selection List

NJEMS Sites

Check All

1 50686, FRANKLIN TRANSMISSION & TIRE CO, 403 RT 23, FRANKLIN, SUSSEX

Done

Local intranet