

Nonpoint Data Management System - NDMS

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NDMS

- Web-Based System for Developing NonPoint Inventories
 - ASP.NET
 - Microsoft SQL-Server
- User System Requirements
 - Internet Connection
 - Web Browser
 - Adobe SVG-Viewer plug-in (free)
- Hosting Options
 - Pechan-hosted
 - Self-hosted

NDMS

- Facilitates building nonpoint emission inventories compliant with EPA requirements
- Bridges the data gap between EI developers and modelers
- Reduces QA issues commonly encountered in nonpoint EIs
- Centralizes storage of data
- Maintains historical data sets



P-NDMS

Pechan : NonPoint Data Management System



General Information

What is the purpose of the P-NDMS system and what can it be used for?



Data Management

Input and manage your emissions factors, activity data, control efficiencies, growth factors, and allocation data.



Inventory Development

Process, copy, modify, and perform future year projections to your existing emissions inventories.



Data Import & Export

Import and export your emissions inventories using EPA approved and custom formats.



Reporting & Analysis

Create, view, and export custom tabular reports and charts of your emissions and input data.



Maps & GIS Data

Create and view custom maps of emission, activity, and control data.



Support Data

Manage, view, and modify your base data sets and documents.



Self Help

View the P-NDMS FAQ and Help files.

NEWS

Wednesday, September 28, 2005

- Test_news

The main dashboard for NDMS allows users to easily navigate to desired system functions.

MEMBERS LOGIN

Login ID :

Password :

SIGN IN

* Login ID & Password are case sensitive.

- New User
- Forgot Password

Data Management | **Inventory Development** | **Data Import & Export** | **Reporting & Analysis** | **Maps & GIS Data** | **Support Data** | **Admin Section** | **Self Help**

Inventory Point Source Correction Import

Data File :

Reference ID :

Import Name :

Import File Type : TXT

Note : Make Sure The Data File Contains Header, As Shown In The Sample Import File
[Download Empty Data Input Structure for Inv. Point Source Correction Data In Text Format.](#) **Click To Download**

User : stateadmin

Dashboard

Data Import

- > **Inv. Point Source Correction**
 - **Import Data**
 - View Data Status
- > Activity Data
- > Control Data
- > Emission Factors
- > Temporal Allocation Data
- > Speciation Profiles
- > Spatial Allocation Data

Data Export

Log Out



This screen is a typical starting point with NDMS users: import of existing data. Note the various types of data that can be imported directly into NDMS.

Activity Data

Year : 2005
State : New Jersey
County :

- Atlantic Co
- Bergen Co
- Burlington Co
- Camden Co
- Cape May Co

 Select All

Reference ID : SCC_2102_2005 ADD

SCC 4 : 2103 - Stationary Source Fuel Combustion; Commercial/Institutional

↓

SCC 7 :

- 2103001 - Stationary Source Fuel Combustion; Commercial/Institutional; Anthracite Coal
- 2103002 - Stationary Source Fuel Combustion; Commercial/Institutional; Bituminous/Subbit
- 2103004 - Stationary Source Fuel Combustion; Commercial/Institutional; Distillate Oil
- 2103005 - Stationary Source Fuel Combustion; Commercial/Institutional; Residual Oil
- 2103006 - Stationary Source Fuel Combustion; Commercial/Institutional; Natural Gas

 Select All

↓

SCC 10 : 2103001000 - Stationary Source Fuel Combustion; Commercial/Institutional; Anthracite Coal;
 Select All

Activity Level :
 State Level
 County Level

Remarks :

NEXT

User : stateadmin

- Dashboard
- Activity data**
 - > Add Yearly Activity
 - > Add Seasonal Activity
 - > Edit/View
 - > Pending
- Control Data
- Emission Factors
- Activity Allocation Data
- Temporal Allocation Data
- Speciation Data
- Spatial Data
- Growth factors
- Log Out

Once data are imported, the data can be manipulated or new data added for the inventory via the user interface.

Activity Data

State : 34 - New Jersey
Year : 2005
Activity Reference ID : SCC_2102_2005

Total : 3

No. of Records per page : 10 Page 1 of 1 Go to page : 1 Go

Apply Point Source Correction : Yes

Apply to All

Fips County	SCC	Material	I/O	Unit	Area Activity	Point Activity	Net Activity	Start Date	End Date	Days / Week	Weeks / Year	Hours / Day	Hours / Year
001	2103001000	Anthracite - 640	I	TON	250	200	50	20050101	20051231	7	52	24	8736
005	2103001000	Select Material	I	Select Unit	0	0	0	20050101	20051231	7	52	24	8736
009	2103001000	Select Material		Select Unit	0	0	0	20050101	20051231	7	52	24	8736

- 1,1,1-Trichloroetha
- 1,2,4-Trichlorobenz
- 1,4-Butanediol - 76
- 1,4-Dioxane - 765
- 100% Sulfur - 611
- 100% Sulfuric Acid
- 1-Butene - 766
- 1-Pentene - 767
- 2,4-Dichlorophenol
- 2-Butene - 769
- 3/4-inch Medium D
- 3/4-inch Particlebo.
- 3/8-inch Oriented S
- 3/8-inch Plywood -
- 37% Formaldehyde
- Abrasive - 615
- ABS Polymer - 973
- Acetaldehyde - 773
- Acetic Acid - 774
- Acetic Anhydride -
- Acetone - 616
- Acetonitrile - 617
- Acetylene - 776
- Acid - 618
- Acrolein - 619
- Acrylic Acid - 777
- Acrylic Esters - 778
- Acrylonitrile - 621
- Adhesive - 622

GO BACK
SAVE CURRENT ACTIVITY
SAVE FINAL ACTIVITY DATA

This screen shows the selection of material and recording of nonpoint and point activity levels resulting in net nonpoint activity.

NDMS Data Import/Input

- Similar Screens provided for:
 - Emission Factors
 - Control Data
- User can review/modify:
 - Temporal profiles (monthly, weekly, diurnal);
 - Speciation profiles (PM and VOC);
 - Spatial surrogates.

Emission Inventory

State :
County :
 Select All

Version :

Year :

SCC 2 :

SCC 4 :

 Select All

SCC 7 :

 Select All

SCC 10 :
 Select All

Pollutant :

 Select All

TAP
GHG
 Pollutant Code

Inventory Type :

User : stateadmin

Dashboard

Emission Inventory

- > Add New
- > Pending
- > Edit/View
- > Data Cloning
- > Apply Point Source Correction

Inventory Point Source Correction

Project Future Year Emissions Inventory

Quality assurance & Control

Log Out

In order to create the emissions inventory, the user selects from the activity data, emission factors, and control data that have been imported or entered into NDMS.

[Data Management](#) |
 [Inventory Development](#) |
 [Data Import & Export](#) |
 [Reporting & Analysis](#) |
 [Maps & GIS Data](#) |
 [Support Data](#) |
 [Admin Section](#) |
 [Self Help](#)

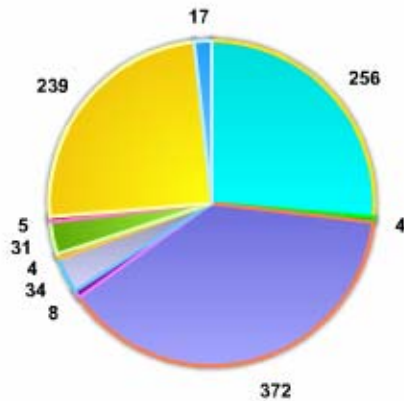
Reporting & Analysis

Criteria

Graphical Chart View

Tabular Data View

Nonpoint Source Summary by Pollutant



■ CO
 ■ NH3
 ■ NOX
 ■ PM10-FIL
 ■ PM10-PRI
 ■ PM25-FIL
 ■ PM25-PRI
 ■ PM-CON
 ■ SO2
 ■ VOC

State	34
Counties	001
SCC 10	2103*

Graph Types



Bar



Pie



Doughnut



Line

Export Types



JPG



PDF

User : newjersey

[Dashboard](#)

[Reporting & Analysis](#)

[Log Out](#)

Once an emissions inventory is created, it is available for the data analysis toolset which includes various graph types...

[Data Management](#) |
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Reporting & Analysis

Criteria

Graphical Chart View

Tabular Data View



State	County	SCC	Pollutant	Emissions	Units
34 New Jersey	001 Atlantic Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	9490.7000	TON
34 New Jersey	037 Sussex Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	8551.4000	TON
34 New Jersey	005 Burlington Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	7047.9000	TON
34 New Jersey	027 Morris Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	7047.9000	TON
34 New Jersey	029 Ocean Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	5356.1000	TON
34 New Jersey	041 Warren Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	4870.7000	TON
34 New Jersey	015 Gloucester Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	4010.9000	TON
34 New Jersey	025 Monmouth Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	3977.9000	TON
34 New Jersey	009 Cape May Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	3850.7000	TON
34 New Jersey	019 Hunterdon Co	2104008000 Stationary Source Fuel Combustion; Residential; Wood; Total: Woodstoves and Fireplaces	CO	3510.7000	TON

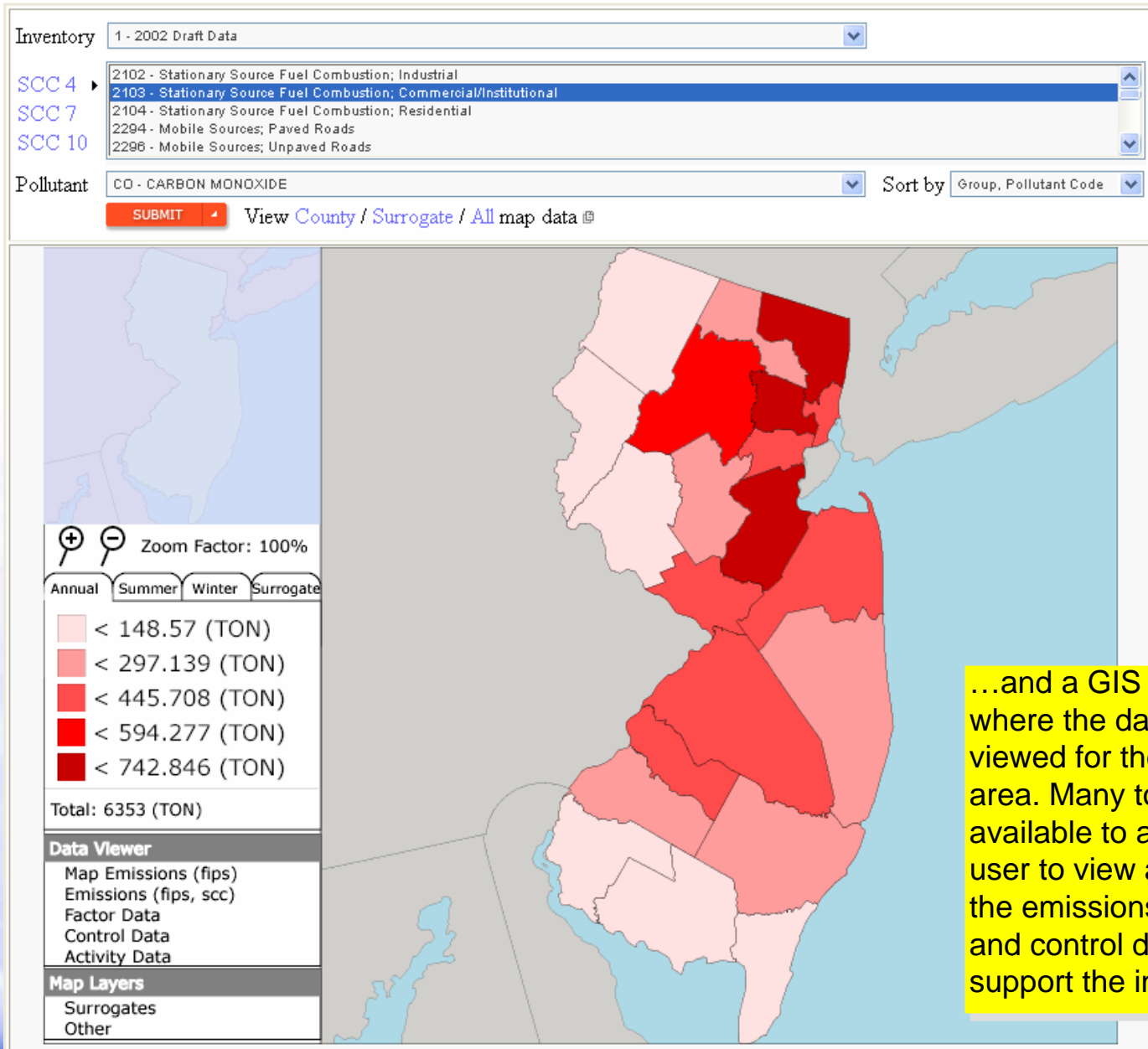
User : newjersey

[Dashboard](#)

[Reporting & Analysis](#)

[Log Out](#)

...pre-formatted reports...



...and a GIS interface where the data can be viewed for the inventory area. Many tools are available to allow the user to view and analyze the emissions, activity, and control data that support the inventory.

Inventory 1 - 2002 Draft Data

SCC 4
SCC 7
SCC 10

2102 - Stationary Source Fuel Combustion; Industrial
2103 - Stationary Source Fuel Combustion; Commercial/Institutional
2104 - Stationary Source Fuel Combustion; Residential
2294 - Mobile Sources; Paved Roads
2296 - Mobile Sources; Unpaved Roads

Pollutant CO - CARBON MONOXIDE Sort by Group, Pollutant Code

SUBMIT View County / Surrogate / All map data

Zoom Factor: 300%

Annual Summer Winter Surrogate

< 2.352 (TON)
< 4.703 (TON)
< 7.054 (TON)
< 9.405 (TON)
< 11.757 (TON)

Total: 6353 (TON)

Data Viewer

Map Emissions (fips)
Emissions (fips, scc)
Factor Data
Control Data
Activity Data

Map Layers

Surrogates
Other

Population Tract 0426009

County: Morris (34027)
County Population: 468880
Population: 5375
County Emissions: 469.720923 (TON)
Tract Emissions: 5.3846399102648865 (TON)

On this screen, the emissions data are being shown allocated to population at the census tract. The legend is interactive with the mouse position over the map.



Population Surrogates Data

County Fips	Tract	Population	Population Annual Emissions	Population Summer Emissions	Population Winter Emissions	Housing	Housing Annual Emissions	Housing Summer Emissions	Housing Winter Emissions	Urban Po
34001	0000000	0	0	0	0	0	0	0	0	0
34001	0001001	1073	467	1016	0	1.0815255101208678	3.52033757681666	11.497585277413717	1.0444025062132682	3.399503
34001	0001002	1193	490	1166	0	1.2024789688482717	3.9140379581941054	12.783428924468374	1.095839888746256	3.566930
34001	0002001	1323	720	1271	0	1.3335118824696257	4.340546704686338	14.176426208777584	1.6102137140761312	5.241204
34001	0002002	1061	528	1099	0	1.0694301642481274	3.4809675386789145	11.36900091270825	1.180823390322496	3.843549
34001	0002003	846	717	860	0	0.8527218840281959	2.7755876887109916	9.065197711735326	1.6035044902674806	5.219365
34001	0003001	861	336	984	0	0.8678410663691214	2.8248002363831723	9.225928167617157	0.7514330665688611	2.445895
34001	0003002	1563	577	1534	0	1.575418799924433	5.127947467441229	16.748113502886895	1.2904073791971215	4.200242
34001	0003003	1000	487	990	0	1.0079454893950306	3.280836511478713	10.715363725455466	1.0891306649376053	3.545092
34001	0004001	1432	963	1647	0	1.443377940813684	4.698157884437518	15.34440085485223	2.153660842576825	7.010110
34001	0004002	1668	1541	1453	0	1.6812530763109112	5.472435301146494	17.87322669405972	3.446304629710164	11.21763
34001	0005001	832	306	757	0	0.8386106471766654	2.7296559775502893	8.915182619578947	0.6843408284823558	2.227511
34001	0005002	2109	743	2184	0	2.1257570371341194	6.919284202708607	22.59870209698558	1.6616510966091184	5.408631
34001	0011001	1081	593	1071	0	1.0895890740360281	3.5465842689084894	11.58330818721736	1.3261899061765913	4.316713
34001	0011002	808	431	797	0	0.8144199554311848	2.6509159012748005	8.658013890168018	0.9638918205094618	3.137442
34001	0012001	1069	482	892	0	1.077493728163288	3.507214230770745	11.454723822511896	1.0779486252565211	3.508694
34001	0012002	952	457	1007	0	0.9595641059040691	3.1233563589277353	10.201026266633604	1.0220384268510998	3.326708
34001	0012003	1187	427	1330	0	1.1964312959119012	3.8943529391252327	12.719136742115639		
34001	0013001	667	290	649	0	0.6722996414264855	2.188317953156302	7.147147604878797		
34001	0013002	1445	598	1511	0	1.4564812321758193	4.740808759086741	15.483700583283152		
34001	0014001	1490	453	1482	0	1.5018387791985956	4.888446402103283	15.965891950928647		
34001	0014002	988	486	1012	0	0.9958501435222903	3.241466473340969	10.586779360750002		
34001	0014003	1553	750	1489	0	1.5653393450304826	5.095139102326442	16.640959865632343		
34001	0015001	946	583	917	0	0.9535164329676991	3.103671339858863	10.136734084280872		
34001	0015002	1011	447	1003	0	1.019032889778376	3.3169257131049794	10.833232726435477		
34001	0019001	2047	1099	2084	0	2.0632644167916276	6.715872338996927	21.93434954600734		

Links on the GIS module provide instant access to the underlying data to be viewed on the screen or downloaded to a workstation.

Data Management | Inventory Development | **Data Import & Export** | Reporting & Analysis | Maps & GIS Data | Support Data | Admin Section | Self Help

SMOKE v2.1 Input Files (IDA)

Source File : NDMS

State : New Jersey

County :
Atlantic Co
Bergen Co
Burlington Co
Camden Co
Cape May Co Select All

Inventories :

Pollutant :
VOC
NOX
CO
SO2
PM10 Select All

EXPORT SMOKE FILE

User : newjersey

Dashboard

Data Import

Data Export

- > Export Inventory
- > NIF 4.0
- > Activity Data
- > Control Data
- > Emission Factors
- > Temporal Allocation Data
- > Inv. Point Source Correction
- > **SMOKE 2.1 IDA**
 - **Export Data**
 - View Data Status
- > AD-HOC

Log Out

Among the robust data export capabilities, NDMS interfaces with EPA via NIF XML transactions and generates SMOKE model ready input files.

NDMS Availability

- Available Now
 - Implementation - approximately 30 days
- Licensing
 - 1, 3 or 5 year license terms
- Contacts
 - Manish Salhotra (Eastern U.S.) at 703-813-6700, ext 173
 - Stephen Roe (Western U.S.) at 916-708-1893
 - Randy Strait (Eastern U.S.) at 919-493-3144, ext. 118