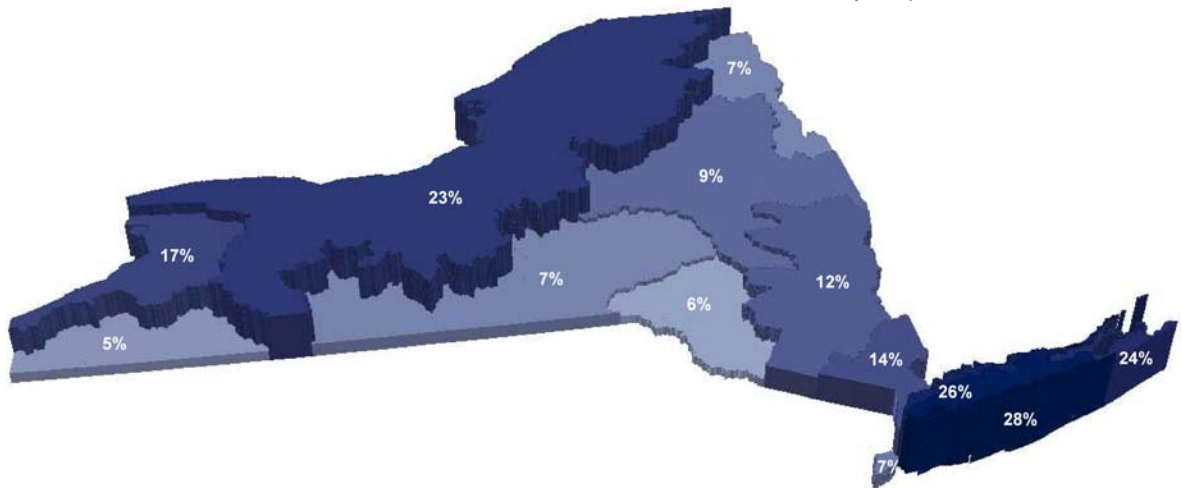

Data Priorities Survey Results and Analyses

REPORT FOR THE NY OCEAN AND GREAT LAKES
ECOSYSTEM CONSERVATION COUNCIL (OGLECC)

Project ID 071866-G

March 2008

Survey Respondent Distribution



This project was prepared under State of New York Contract # 000273/19000

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Acknowledgements

This report was prepared by Katie Budreski and David Healy. Leslie Allen was the designer of the Survey Monkey® questionnaire. Jeff Herter at the New York Department of State reviewed the draft versions of the report. We extend our thanks to the 134 persons who took the time to complete the survey.

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1. INTRODUCTION

Understanding data required for implementing ecosystem-based management processes necessitates knowledge of complex natural systems and the social aspects of places. Data is a critical component for understanding the complexity of ecosystems and incorporating EBM statewide. Creating data required to understand ecosystem complexities can be quite expensive. This report is the first step of an iterative process to identify data needs prioritize data needs to support New York's ecosystem-based management efforts. It summarizes a survey conducted on the internet in February 2008. Part Two, a Data Priorities Workshop to be held in April 2008 will refine the survey data priorities identified in this report. Information provided from this survey and the workshop will assist the state in directing data development funding.

In 2006, New York enacted the New York Ocean and Great Lakes Ecosystem Conservation Act (Act). As part of the New York Ocean and Great Lakes Ecosystem Conservation Council's (Council) implementation plan, a concerted effort is underway to identify, collect, create metadata and make available datasets necessary to carry out EBM statewide and by region. Given the breadth and scope of that data collection effort, it is important to learn what data is needed to conduct ecosystem-based management activities and to prioritize collection and creation of critical datasets. The Council's consultant, Stone Environmental Inc. (Stone), conducted a web-based survey to help identify data development needed to support various ecosystem-based management activities specified in the Act.

Many datasets have been developed by numerous organizations and have been catalogued and collected by the Council. At the time of this report there are 640 datasets available for public use. These data sets will be accessible through the *New York Oceans and Great Lakes Atlas* web mapping application. . This *Report* provides tabulated results and a written analysis of the *Data Priorities Survey: New York Ocean and Great Lakes Ecosystem-base Management* conducted by Stone for the Council. Further, it provides information on multiple facets of dataset needs and gaps within a diverse user community. The information presented here is the first step in identifying data priorities. Survey results will be used to develop a one-day workshop to be held in April where data priorities will be further refined. Results and analysis of the online survey provide a robust view of data priorities by type of user, institution, and watershed.

2. SURVEY DESIGN AND METHODS

The purpose of the Council-sponsored Priority Data Survey and Workshop is to arrive at consensus data development priorities based on a data gaps analysis previously completed. The purpose for conducting the Priority Data Survey was to involve broad public participation as stipulated in the Act and to direct a deeper conversation of data development needs at the Data User/Priority Workshop.

To reach as many New York State GIS Data Users as possible, the survey was created using *Survey Monkey*, an internet based survey method, and was distributed through e-mail to the NYS GIS Listserv (1,123 contacts), Council Listserv (960+ contacts), Science Advisory Committee Listserv (19 contacts), and contacts from Stone's data catalogue database (128 contacts). A link to the online survey was distributed on February 6, 2008 and a reminder was sent via e-mail on February 20, 2008. The survey was available until 5 pm on February 22, 2008.

The survey was crafted in five sections: *1. General Respondent Information*, *2. Data Priorities*, *3. Respondent Profile*, *4. Data Workshop Planning*, and *5. Conclusion*. The *General Respondent Information* section included questions regarding occupation, professional level, GIS skill level, professional role, and geographic area of interest. The *Data Priorities* section allowed users to pick their top five priorities within a pre-defined list of datasets as well as list five additional data priorities not included in the predefined list. The *Respondent Profile* section included questions on GIS data use and/or development. Questions covered GIS software, GIS format, GIS data sources, whether the respondent's organization developed data or would fund data development that could be used in the OGL Atlas. The *Data Workshop Planning* section asked respondents if they would be interested in attending a follow-up Data User Workshop and if so, which days of the week would best fit their schedules. Finally, the *Conclusions* section invited respondents to provide their information (name, organization, e-mail address, and phone number). The entire survey document may be found in Appendix A and to view the list of data priority choices available to the respondent go to Appendix C.

3. RESULTS

3.1. Respondent Information and Profiles

One hundred thirty-eight (138) New York State GIS Data Users started the survey and one hundred seven (107) actually completed the survey. It is unknown how many people received the survey in total because it was distributed through e-mail lists managed by multiple organizations and many New York State GIS Data Users are members of more than one of those e-mail lists.

Survey respondents represent a range of professions, though environmental science dominates the group (25% of respondents, Table 1). Planning/Policy and Education are other well represented professions (14% and 10% of respondents respectively). A majority of respondents provided a profession that was not explicitly included in the survey (28%). Of those, eleven (8% of total respondents) included GIS or mapping technician in their title and five (4% of total respondents) included ‘conservation’ in their title. There were several professions listed in the survey that were not represented by any of the survey respondents. These included *Business Development*, *Communications*, *Manufacturing*, *Recreation*, *Retail*, and *Tourism*.

TABLE 1. Respondents by Profession

Answer Options	Response Percent	Response Count
Environmental Science	25%	35
Planning/Policy	14%	19
Education	10%	14
Ecology	7%	9
Engineering	7%	9
Marine Science	6%	8
Administration	4%	5
Health	2%	3
Fishing	1%	1
Business Development	0%	0
Communications	0%	0
Manufacturing	0%	0
Recreation	0%	0
Retail	0%	0
Tourism	0%	0
Other	28%	38
Total Respondents*		138

Note: Respondents were able to provide one of the answer options provided and/or ‘Other’

Respondents are well distributed across institutions with the exception of Federal government (Table 2). More than half (57%) of respondents work for a governmental entity at some level. It is unknown how many survey recipients work with the federal government.

TABLE 2. Respondents by Institution

Institution	Response Percent	Response Count
Federal government	1%	1
State government	24%	33
County government	22%	30
Local government	9%	13
NGO/institute	15%	20
University/college	17%	23
Consulting firm	9%	12
Other	4%	5
Total Respondents*		137

*Respondents were able to provide one of the answer options provided and/or 'Other'

Survey respondents varied by professional level, although no respondents work at the administrative or intern levels (Table 3). The lack of respondents from these professions might be expected since two of the larger e-mail lists that received the link to the survey are generally subscribed to by experienced GIS users and the other e-mail lists are comprised generally of executive or managerial level professionals.

TABLE 3. Professional Level

Answer Options	Response Percent	Response Count
Executive	5.8%	8
Management	15.2%	21
Senior professional	32.6%	45
Staff professional	41.3%	57
Administrative	0.0%	0
Intern	0.0%	0
Other	5.8%	8
Total Respondents*		138

Note: Respondents were able to provide one of the answer options provided and/or 'Other'

Professional roles that survey respondents associated themselves with were well distributed across all categories provided by the survey (Table 4). Many respondents felt that they did not fit into the provided categories (35%). Of those, fifteen (11% of respondents) specified that they do GIS work and seven (5% of respondents) specified that they were either an educator or professor.

TABLE 4. Respondents by professional role.

Role	Response Percent	Response Count
Citizen advocate	8%	11
Data manager/custodian	18%	24
IT manager	5%	7
Planner	14%	19
Regulator	9%	12
Resource manager	15%	20
Other	35%	48
Total Respondents*		136

*Respondents were able to provide one of the answer options provided and/or 'Other'

Respondents are distributed across all watershed regions of the state and seem to reflect a similar distribution to population in those areas (Table 5). Several respondents (nineteen) offered regions that were not included in the list provided. Respondents that specified a region generally provided a watershed that was smaller than those given. For example, five respondents (4%) mentioned that their work focuses on the St. Lawrence River.

TABLE 5. Respondents by region.

Region	Response Percent	Response Count
Statewide	29%	40
Allegheny	5%	7
Delaware	4%	6
Hudson River Estuary	14%	19
Lake Champlain	7%	9
Lake Erie - Niagara River	17%	24
Lake Ontario	23%	32
Long Island Peconic Bay	24%	33
Long Island Sound	26%	36
Long Island South Shore	28%	39
Lower Hudson	12%	16
New York Harbor	7%	10
Susquehanna	7%	9
Upper Hudson	9%	12
Other	14%	19
Total Respondents*		138

*Respondents were able to choose multiple answers

GIS skill levels of survey respondents was well distributed across all levels (Table 6). The majority of respondents claimed to have intermediate or slightly better GIS experience which, again, is expected given the e-mail lists to which the survey was distributed. . Most respondents use GIS for basic mapping needs (80% of respondents, Table 7) and most also perform spatial analyses with GIS data (68% of respondents). GIS data is also used as a planning tool for many respondents (55% of respondents).

TABLE 6. GIS skill level

Skill level	Response Percent	Response Total
1 (minimal experience)	11%	15
2	18%	24
3	31%	42
4	32%	44
5 (high-level applications programmer)	9%	12
N/A	0%	0
Total Respondents		137

TABLE 7. GIS use

Answer Options	Response Percent	Response Count
Cartographic or mapping	80%	88
Spatial analysis	68%	75
Scientific analysis	45%	49
Planning	55%	61
Not a GIS software user	7%	8
Other	8%	9
Total Respondents*		110

*Respondents were able to choose multiple answers

A vast majority of respondents use ESRI ArcGIS[®] software (92%) and ESRI data formats (shapefile, 92% and geodatabase, 67%) for their GIS needs (Tables 8 and 9). MapInfo is also used by respondents, however seven of the twelve respondents who use MapInfo[®], also use ArcGIS[®]. AutoCAD[®] users were similar to MapInfo[®] users in that ten of the twelve respondents that use AutoCAD[®] also use ArcGIS[®]. Respondents who use 'other' data formats primarily specified raster formats such as GRID and GeoTiff (five respondents) and coverages (three respondents). One respondent specifically mentioned that they use web services.

TABLE 8. Software use.

Answer Options	Response Percent	Response Count
ArcGIS	92%	97
ArcIMS	20%	21
ArcServer	13%	14
MapInfo	11%	12
Maptitude	2%	2
Manifold	4%	4
Erdas	8%	8
IDRISI	3%	3
GRASS	2%	2
Intergraph	0%	0
Bentley	4%	4
AutoCad	11%	12
Other	6%	6
Total Respondents*		106

*Respondents were able to choose multiple answers

TABLE 9. GIS data formats

Answer Options	Response Percent	Response Count
Shapefile	91.8%	89
Geodatabase	67.0%	65
TAB	10.3%	10
KML	14.4%	14
Other	10.3%	10
Total Respondents*		97

*Respondents were able to choose multiple answers

Most survey respondents obtain data from the New York State GIS Clearinghouse (89% of respondents, Table 10). Other common data sources for respondents are county GIS organizations (63% of respondents) and Cornell University Geospatial Information Repository (CUGIR). Twelve respondents specified that they create their own data for their GIS needs. Others specified a state government agency (six respondents) or a federal government agency (five respondents) as sources of data. It is evident, and not surprising, that survey respondents use multiple GIS data sources for their GIS needs. Over eight out of ten (82%) respondents chose more than one GIS source.

TABLE 10. GIS data sources.

GIS Data Sources	Response Percent	Response Count
County GIS organization	63%	65
New York State GIS Clearinghouse	89%	92
Geospatial One-Stop	10%	10
Cornell University Geospatial Information Repository (CUGIR)	50%	52
National Atlas	14%	14
Commercial providers	4%	4
Other	26%	27
Total Respondents*		103

*Respondents were able to choose multiple answers

3.2. Data Priorities

Respondents were asked to select their top five data priorities from a list of data categories. The data priorities selected by respondents are given in Table 11 (see Appendix B). Data priorities are also reported by watershed (Table 12) and by profession (Table 13) (see Appendix B). Top priorities across all groupings were parcel data (39%), bathymetric data (29%), and stormwater management data (23%). Land Use/Land Cover data (conservation/easement lands and critical natural areas) were also priorities, however were not top priorities when broken out by watershed and by profession.

Respondents were given the opportunity to provide five additional datasets that they felt were a priority, and not listed in the survey. Respondent defined data priorities are presented in Table 14 (see Appendix B).

4. NEEDS ASSESSMENT

4.1. The Respondent Population

The representation of survey respondents across occupations, professional levels, professional roles, and institutions was well distributed in most cases. Although many respondents work for a governmental agency or department (57% of respondents), only one of those work at the federal level. There are seven federal data providers for the NYS GIS Clearinghouse and likely many others that are members of the NYS GIS listserv. This e-mail list is the primary source of federal government contacts. Another gap in respondent representation was found in the occupation category. The occupation groups of business development, communications, manufacturing, recreation, retail, and tourism are not represented by the respondent population. Generally, these professions are not expected to be GIS data users, though data and information from each of these sectors should be incorporated into ecosystem-based management efforts.

Watersheds where survey respondents conduct work are extremely well-distributed across the respondent population and appear to mirror population in the state. Respondents were able to choose as many watersheds as pertinent. Almost a third (29%) of respondents are interested in statewide efforts, while 14% of respondents used the ‘other’ category to specify watersheds smaller than those offered in the pre-defined list of watershed regions.

4.2. GIS Preferences and Needs

The level of GIS knowledge and sophistication of respondents ranged from individuals that were not GIS users to high-level GIS programmers. A majority of respondents placed themselves within the middle of this range. Respondents were able to choose multiple answers when asked how they use a GIS. Most respondents use a GIS for mapping and a majority also performs spatial analysis and conducts planning activities using a GIS.

4.3. Data Priorities

Survey results reveal that data priorities of respondents are varied and cross multiple disciplines. Of the 72 categories provided, 56 were selected among the top five data priorities by at least one respondent. With this diverse survey respondent population, it might be predicted to have a wide range of data priorities, spanning across disciplines. When considering data development needs in the state, all data priorities should be considered. In order to prioritize datasets development, it is helpful to pull those that were repeatedly selected across disciplines and watershed regions. Many of the top data priorities specified by survey respondents have been previously identified by The New York Ocean and Great Lakes Ecosystem Conservation Council. The most significant data gaps were identified in a report to the Council prepared by Stone Environmental, Inc. in February 2007. .

Table 15 lists earlier identified data gaps along side this survey’s findings for that data gap. All gaps identified earlier were also identified as data priorities by survey respondents with the exception of economic data for fisheries. This category was inadvertently left off the list of data priority choices in the survey and as a result. Further, it wasn’t specified by any of the respondents as an ‘other’ data priority. However, fisheries data, in general, was selected as a priority for many respondents.

TABLE 15. Council identified data gap and associated survey results.

Council Identified Data Gap	Survey Results
Shallow water benthic mapping - <i>Hudson River Estuary</i>	Benthic mapping is a priority to respondents working in the Hudson River Estuary (HRE). 25% of HRE respondents placed it within their top 5 making it the 4 th top priority in the watershed.
Tidal-Freshwater Wetland Mapping - <i>Statewide</i>	Wetland data is a priority to respondents. Freshwater wetland habitat and estuarine habitat were both in the top 10 priorities of the survey respondent population. This dataset has also been identified as a priority through the State of New York Geographic Information System Strategic Plan Workshops.
Habitat Mapping – <i>Statewide</i>	Ten different habitat subcategories were provided as data priority options in the survey. Of these, freshwater wetlands, estuarine habitat, coastal habitat, restoration, and ecoregions were all within the top 20 data priorities for survey respondents. Other habitat types that were revealed when data priorities were summarized by groups: <ul style="list-style-type: none"> *Submerged grasses (Marine Science top 10) *Deepwater habitat (Marine Science top 10; Lower Hudson watershed top 10)
Invasive Species Mapping – <i>Statewide</i>	Invasive mapping is a priority to respondents. Invasive mapping is one of the top 10 priorities listed by respondents. When broken out by profession, invasive species data was a top 10 priority for respondents from ecology, education, engineering, and environmental science professions and a priority for Planning/Policy profession (ranked 19 th). Invasive species data appears to be a priority in all regions and within the 10 top priorities for the Allegheny, Delaware, Hudson River, Lake Champlain, Lake Erie-Niagara River, Lake Ontario, New York Harbor, and Susquehanna watersheds.
Benthic Mapping – <i>Atlantic Region</i>	Benthic mapping is a priority to respondents working in the Atlantic Region. Survey results have been separated by Atlantic watershed region: <ul style="list-style-type: none"> * Peconic Estuary: 7% of respondents, not in top 10 * Long Island Sound: 12% of respondents, not in top 10 * Long Island South Shore: 6% of respondents, not in top 10 * New York Harbor: 22% of respondents, in top 10
Bathymetric Datasets – <i>Statewide Integration</i>	Bathymetry data ranked as the 2 nd top data priority of the survey respondents. When broken out by watershed, bathymetric datasets were within the top 10 priorities for all watersheds, with the exception of Long Island Peconic Bay, (ranked 11 th), Long Island South Shore (ranked 11 th), Delaware and Susquehanna (did not rank). When broken out by profession, bathymetric datasets were within the top 10 priorities, with the exception of the Health profession (did not rank).
Underwater Infrastructure – <i>Statewide</i>	While not in the top 20 priorities of all respondents, underwater infrastructure data was listed as a data priority and ranked in the top 10 data priorities by the Administration, Ecology, Engineering, and Marine Science professions. When broken out by watershed, underwater infrastructure categories were represented as follows; Allegheny (in top 10), Hudson River Estuary (6%), Lake Champlain (14%), Lake Erie-Niagara River (5%), Lake Ontario (7%), Peconic Bay (10% and 7%), Long Island Sound (9% and 6%), Long Island South Shore (11%), Susquehanna (13%), Upper Hudson (8%)
Biological Sampling – <i>Statewide</i>	Fifteen different habitat subcategories were provided as data priority options in the survey. Of these, bird distribution was within the top 20 data priorities of respondents, and fish distribution, shellfish distribution, ichthyoplankton, macroinvertebrates, marine mammal distribution, reptile distribution, and chlorophyll were also selected as data priorities.
Economic Data for Fisheries – <i>Statewide</i>	Economic fisheries data was not a specific category in the survey. Fish distribution data, which was a priority to 7% of survey respondents, can be used in economic analyses. Similar datasets, shellfish distribution was a priority to 4% of respondents and bottom fishing areas were a priority to 1% of respondents.

Survey respondents identified data priorities that were not defined as a major data gaps in the Council report. Table 16 summarizes the major data priorities not previously identified and associated survey results. New data gap categories are parcel data, land use/land cover data, stormwater management data, facilities and structures, flood data, groundwater data, water chemistry, shoreline, and socioeconomic datasets.

TABLE 16. Survey identified data priority and associated survey results

Survey Identified Priority	Survey results
Parcel boundaries	Top priority among survey respondents and within the top 10 priorities for respondents by watershed. When respondents were broken out by profession, parcel boundaries were in the top 10 data priorities for all professions with exception of Administration (not ranked). This dataset has also been identified as a priority through the State of New York Geographic Information System Strategic Plan Workshops. In the Discussion Draft #2 there is discussion of coordination in creating a statewide parcel dataset.
Land use / Land Cover	Several land use and land cover datasets were considered a priority. Conservation/easement lands and critical natural areas both were listed within the top 10 data priorities for the survey respondent population. Public beach data was also selected among the top 5 data priorities for 5% of the survey respondents. Several survey respondents also contributed 'general land use/land cover', 'land use change,' and 'land cover: vegetation and permeability' as data priorities that were not in the list of answer options.
Stormwater management facilities and structures	4 th top priority for survey respondents. When respondents are separated by watershed, stormwater management data is within the top 10 priorities for all watersheds. Also, when broken out by profession, this data is within the top 10 priorities for all professions with the exception of Health (not ranked)
Facilities and Structures	Several other subcategories of facility and structure were priorities to respondents. Drinking water supply, wastewater treatment facilities, hazardous material storage sites, (all within top 20), navigation aids (3%), and marine facilities (1%) were selected as data priorities. Several respondents mentioned other facility and structure data that was not included in the predefined list. These include bridges, water service lines, petroleum bulk facilities, dams, and power plants.
Flood data	Flood data is a top priority for 16% of the survey respondents. In particular, flood data was a top priority for respondents in the Allegheny, Lake Erie-Niagara River, Susquehanna (all top 10), Hudson River Estuary (13%), Lake Champlain (14%), Lake Ontario (11%), Peconic Bay (13%), Long Island Sound (9%), Long Island South Shore (14%), and the Upper Hudson (8%) watersheds
Groundwater data	Groundwater data is a top priority for 16% of the survey respondents. Groundwater datasets were especially important to respondents within the Allegheny, Long Island Sounds, South Shore, and Peconic Esturay (all top 10), Lake Eire-Niagara River, (5%), and Lake Ontario (11%) watersheds.
Water Chemistry	12% of survey respondents found water chemistry data a top priority. Water chemistry data also was prevalent when respondents were broken out by watershed. By watershed: Allegheny, Delaware, Susquehanna, Peconic Bay, Long Island Sound and South Shore (all top 10), Lake Champlain (14%), Lake Erie – Niagara River (11%), and Lake Ontario (11%). It is unknown the specific water chemistry data that is desired.
Shoreline	Shoreline data is a priority to 15% of all respondents. Shoreline data also was prevalent when respondents were broken out by watershed. By watershed: Peconic Bay, Long Island Sound, Hudson River Estuary, Lower Hudson, Lake Champlain, Lake Erie – Niagara River, Lake Ontario, New York Harbor (all top 10), Long Island South Shore (17%),
Socioeconomic datasets	Socioeconomic datasets were not often rated as the top priority within groupings, however, these datasets were selected and many 'other' socioeconomic datasets were suggested by survey respondents. 6% of survey respondents found census data to be a priority, 4% found coastal enterprise data a priority, and 3% found historic structure data to be a priority. Additionally, survey respondents specified that they were interested in coastal tourism activities, environmental health data, population density along the shoreline, and proposed industrial uses.

4.4. Data Priorities by Watershed

Several data priorities did not stand out until respondents were broken out by watershed region of interest. Below is a summary of specific data priorities by region. Soils data was a top 10 priority of respondents that worked in the Delaware, Hudson River, Lake Champlain, and Susquehanna watershed regions. The Natural Resources Conservation Service is compiling SSURGO datasets. Spatial datasets have been completed for most of the state; however there are some areas that have not been completed. Of these there are three areas that are not a part of NRCS' mapping initiative, one area that is in progress, and one area that has been authorized, but work has not started. Respondents in the Delaware and Hudson River watersheds selected surficial geological data as a priority and respondents in the Allegheny watershed listed environmental sensitivity index data as top priority. Respondents in the Delaware watershed also listed sediment core data as a priority.

TABLE 17. Data Priorities by Watershed

Watershed	Data Priorities
Allegheny	<ul style="list-style-type: none"> • Shoreline: Environmental Sensitivity Index
Delaware	<ul style="list-style-type: none"> • Geology: Soils • Sediments: Suspended Sediments • Geology: Surficial
Hudson River Estuary, Lower Hudson, and Upper Hudson	<ul style="list-style-type: none"> • Geology: Soils • Geology: Surficial
Lake Champlain	<ul style="list-style-type: none"> • Geology: Soils
Lake Erie – Niagara River	<ul style="list-style-type: none"> • Shoreline: Environmental Sensitivity Index
Susquehanna	<ul style="list-style-type: none"> • Geology: Soils
Lake Ontario, Long Island Peconic Bay, New York Harbor	<i>No additional top data priorities</i>

5. DATA USER WORKSHOP AND NEXT STEPS

Part Two of the data priority identification effort is a workshop that will help to finalize data development priorities needed to support various ecosystem-based management (EBM) activities. Planners, policy makers, educators, natural resource professionals, conservationists, scientists, advocates and government personnel that use or would like to use geographic information to help with developing and implementing EBM processes, analysis, planning, decision making and problem solving have been invited to attend. Workshop participants will spend a day helping to refine and scope out priority datasets for ecosystem-based management. The Council will use results of this survey and workshop to help decide where to invest funds to support development of priority datasets.

Many existing datasets developed by various organizations and have now been catalogued for the Council. For information on availability of exiting datasets, please see the Council's website (<http://www.nyoglecc.org/>).

6. CONCLUSION

The results of this survey have helped to clarify earlier subjective priority listing developed in 2007. Data priorities identified through this survey also provide sufficient information for continuing the discussion at the planned data priorities workshop. The range and number of survey participants provides a broad basis for the next step in priority data refinement and scoping.

Survey results show that there are clear differences of need among regions of the state. This will pose some challenge to a final prioritization because of competing interests. However, the workshop will have a professional facilitator who specializes in consensus building. An important next step at the workshop is to identify potential factor(s) of the identified datasets which may have caused it to be listed as a data need. At the workshop we hope to better understand the dimensions of these data priorities and associated data gaps. In addition to an area where no data exists, data gaps can be existing data that have aspects preventing it from being useful. These aspects include:; data exists but resolution is not adequate; ; data exists but quality is not good enough; data exists but geographic extent is not large enough; data exists but is not in a usable format; data exists but is outdated; data exists but not accessible; data exists but needs expanded temporal range (multiple years of data); data exists but there is inadequate documentation (metadata); etc.

APPENDICES

Appendix A: Survey Questionnaire

Data Priorities Survey: New York Ocean and Great Lakes Ecosystem-

Introduction

In 2006, New York enacted the New York Ocean and Great Lakes Ecosystem Conservation Act (NYOGLECA). This survey will help prioritize data development needed to support the various ecosystem-based management activities specified in the Act. New York State's Oceans and Great Lakes Ecosystem Conservation Council (OGLECC) will use the results of the survey and a follow-up workshop to help decide where to invest funds to support the development of the highest priority data.

Data Priorities Survey: New York Ocean and Great Lakes Ecosystem-

Respondent Information

1. What is your occupation?

- Administration
- Business Development
- Communications
- Ecology
- Education
- Engineering
- Environmental Science
- Fishing
- Health
- Manufacturing
- Marine Science
- Planning/Policy
- Recreation
- Retail
- Tourism

Other (please specify)

2. What is your professional level?

- Executive Management
- Senior professional
- Staff professional
- Administrative
- Intern

Other (please specify)

3. Please rate your GIS skill level.

- 1 (minimal experience) 2 3 4 5 (high-level applications programmer) N/A

Skill level

4. Where do you work?

- Federal government
- State government
- County government
- Local government
- NGO/institute
- University/college
- Consulting firm

Other (please specify)

5. What is your role?

- Citizen advocate
- Data manager/custodian
- IT manager
- Planner
- Regulator
- Resource manager

Other (please specify)

Data Priorities Survey: New York Ocean and Great Lakes Ecosystem-

6. On which region or watershed does your work focus? Check all that apply.

- Statewide
- Allegheny
- Delaware
- Hudson River Estuary
- Lake Champlain
- Lake Erie - Niagara River
- Lake Ontario
- Long Island Peconic Bay
- Long Island Sound
- Long Island South Shore
- Lower Hudson
- New York Harbor
- Susquehanna
- Upper Hudson

Other (please specify)

Data Priorities

7. Please indicate your top five data priorities by selecting one data layer from each drop-down list.

1	<input type="text"/>	▼
2	<input type="text"/>	▼
3	<input type="text"/>	▼
4	<input type="text"/>	▼
5	<input type="text"/>	▼

8. Please list your additional data needs, one per box.

1.	<input type="text"/>
2.	<input type="text"/>
3.	<input type="text"/>
4.	<input type="text"/>
5.	<input type="text"/>

Respondent Profile

9. What software do you use for GIS? Check all that apply.

- ArcGIS
- ArcIMS
- ArcServer
- MapInfo
- Maptitude
- Manifold
- Erdas
- IDRISI
- GRASS
- Intergraph
- Bentley
- AutoCad

Other (please specify)

10. How do you typically use GIS? Check all that apply.

- Cartographic or mapping
- Spatial analysis
- Scientific analysis
- Planning
- Not a GIS software user

Other (please specify)

11. What data formats do you mostly use? Check all that apply.

- Shapefile
- Geodatabase
- TAB
- KML

Other (please specify)

12. What are your primary sources of GIS data? Check all that apply.

- County GIS organization
- New York State GIS Clearinghouse
- Geospatial One-Stop
- Cornell University Geospatial Information Repository (CUGIR)
- National Atlas
- Commercial providers

Other (please specify)

13. Does your organization develop data that could potentially be used by the Oceans & Great Lakes (OGL) Ecosystem-Based Management community?

- Yes
- No

14. If you answered yes to Question 13 above:

The New York Ocean and Great Lakes Atlas, containing all data collected to date, will be available online in late spring 2008. Should your data be shared with a wider community through this Atlas?

- Yes, please contact me.
- Yes, my organization has already shared data.
- No

15. Data development is expensive. Would your organization be interested in sharing the costs of developing data of mutual interest?

Yes, please contact me.

No

Data User Workshop Planning

We are planning a day-long NYS Ocean and Great Lakes Data User Workshop to be held in Albany in late March or early April. The following questions are designed to help us plan for this. The objective of the workshop is to finalize data priorities. There will be an initial presentation by sector experts, after which we will break out into smaller groups to continue the discussion.

16. Would you be interested in participating in such a workshop?

Yes

No

17. If yes, which day/s of the week best fits your schedule?

Monday

Tuesday

Wednesday

Thursday

Friday

Comments:

Conclusion

18. I am interested in seeing the results of this survey.

Yes

No

19. Please provide your contact information if you are interested in attending the workshop, sharing data with the New York Ocean and Great Lakes Atlas, and/or seeing the results of this survey.

Name:

Company:

Email Address:

Phone
Number:

Appendix B: Tables 11, 12, 13, & 14

TABLE 11. Data Priorities: All Respondents

TABLE 12. Top 10 Data Priorities by Watershed

TABLE 13. Top 10 Data Priorities by Profession

TABLE 14. User Defined Data Priorities

TABLE 11. Data Priorities: All Respondents (113 Total)

Data Theme	% Respondents	Data Category
Biological		
	22%	Habitat: Freshwater Wetlands
	17%	Habitat: Coastal Habitat
	17%	Habitat: Estuarine Habitat
	16%	Invasives: Terrestrial Vegetation
	11%	Habitat: Restoration
	10%	Birds: Bird Distribution
	9%	Invasives: Aquatic Vegetation
	9%	Habitat: Ecoregions
	7%	Fisheries: Fish Distribution
	7%	Habitat: Benthic Habitat
	4%	Fisheries: Shellfish Distribution
	3%	Habitat: Submerged Grasses
	3%	Habitat: Deepwater Habitat
	2%	Reptiles: Reptile Distribution
	2%	Plankton: Ichthyoplankton
	2%	Fisheries: Macroinvertebrates
	1%	Mammals: Marine Mammal Distribution
	1%	Invasives: Shellfish
	1%	Plankton: Chlorophyll
	1%	Fisheries: Bottom Fishing Areas
Chemical		
	12%	Water Chemistry
	3%	Sediments: Suspended Sediments
	2%	Sediments: Sediment Cores
	1%	Sediments: Dredge/Sludge Deposit Zones
Infrastructure - Above Water		
	39%	Boundaries: Parcels
	25%	Land Use / Land Cover: Conservation Lands and Easements
	23%	Facilities & Structures: Stormwater Management
	23%	Land Use / Land Cover: Critical Natural Areas
	19%	Facilities & Structures: Drinking Water Supply
	18%	Facilities & Structures: Wastewater Treatment Facilities
	15%	Facilities & Structures: Hazardous Material Storage Sites
	5%	Land Use / Land Cover: Public Beaches
	3%	Facilities & Structures: Navigation Aids
	2%	Tides: Water Gauging: Coastal Observing Systems
	2%	Facilities & Structures: Port Facilities
	2%	Tides: Water Gauging: Tide Prediction/Benchmarks
	1%	Facilities & Structures: Marine Facilities
	1%	Transportation: Navigation Channels
Infrastructure - Under Water		
	8%	Underwater Utilities: Outfalls
	4%	Underwater Utilities: Power Lines
	3%	Underwater Utilities: Pipelines
	1%	Underwater Utilities: Communication Lines

Data Theme	% Respondents	Data Category
Physical	29%	Bathymetry: Bathymetric Contours/Grids
	17%	Geology: Soils
	16%	Hydrology: Groundwater
	16%	Shoreline: Flood Zones
	15%	Shoreline: Shoreline
	9%	Hydrology: Aquifers
	8%	Geology: Surficial
	7%	Hydrology: Recharge
	6%	Shoreline: Environmental Sensitivity Index
	4%	Geology: Bedrock
	4%	Shoreline: Hard Shore
Socioeconomic	6%	Socioeconomic: Census Data
	4%	Socioeconomic: Coastal Enterprises
	3%	Socioeconomic: Historic Structures

TABLE 12. Top 10 Data Priorities by Watershed*

Watershed	% Respondents	Data Category
Allegheny		
	43%	Boundaries: Parcels
	43%	Land Use / Land Cover: Conservation Lands and Easem
	43%	Invasives: Terrestrial Vegetation
	29%	Habitat: Ecoregions
	29%	Habitat: Restoration
	29%	Facilities & Structures: Drinking Water Supply
	29%	Fisheries: Fish Distribution
	14%	Plankton: Ichthyoplankton
	14%	Shoreline: Environmental Sensitivity Index
	14%	Shoreline: Flood Zones
	14%	Tides: Water Gauging: Tide Prediction/Benchmarks
	14%	Underwater Utilities: Pipelines
	14%	Land Use / Land Cover: Public Beaches
	14%	Hydrology: Groundwater
	14%	Invasives: Aquatic Vegetation
	14%	Underwater Utilities: Power Lines
	14%	Facilities & Structures: Wastewater Treatment Facilities
	14%	Land Use / Land Cover: Critical Natural Areas
	14%	Facilities & Structures: Stormwater Management
	14%	Water Chemistry
	14%	Fisheries: Macroinvertebrates
	14%	Habitat: Coastal Habitat
	14%	Habitat: Freshwater Wetlands
	14%	Bathymetry: Bathymetric Contours/Grids
	14%	Facilities & Structures: Hazardous Material Storage Site
Total Respondents: 7		
Delaware		
	50%	Facilities & Structures: Stormwater Management
	50%	Geology: Soils
	50%	Boundaries: Parcels
	50%	Invasives: Terrestrial Vegetation
	33%	Land Use / Land Cover: Conservation Lands and Easem
	33%	Land Use / Land Cover: Critical Natural Areas
	33%	Habitat: Ecoregions
	33%	Habitat: Freshwater Wetlands
	33%	Invasives: Aquatic Vegetation
	17%	Facilities & Structures: Wastewater Treatment Facilities
	17%	Sediments: Suspended Sediments
	17%	Reptiles: Reptile Distribution
	17%	Geology: Surficial
	17%	Water Chemistry
	17%	Invasives: Shellfish
	17%	Facilities & Structures: Hazardous Material Storage Site
Total Respondents: 6		

*Greater than 10 data priorities are listed when there are tied rankings

Watershed	% Respondents	Data Category
Hudson River Estuary		
	38%	Habitat: Estuarine Habitat
	31%	Bathymetry: Bathymetric Contours/Grids
	31%	Habitat: Coastal Habitat
	25%	Habitat: Benthic Habitat
	19%	Geology: Soils
	19%	Land Use / Land Cover: Critical Natural Areas
	19%	Invasives: Aquatic Vegetation
	19%	Land Use / Land Cover: Conservation Lands and Easem
	19%	Habitat: Restoration
	19%	Habitat: Freshwater Wetlands
Total Respondents:		16
Lake Champlain		
	71%	Boundaries: Parcels
	43%	Land Use / Land Cover: Conservation Lands and Easem
	43%	Land Use / Land Cover: Critical Natural Areas
	29%	Facilities & Structures: Drinking Water Supply
	29%	Geology: Soils
	29%	Bathymetry: Bathymetric Contours/Grids
	29%	Invasives: Aquatic Vegetation
	29%	Shoreline: Shoreline
	29%	Habitat: Freshwater Wetlands
	29%	Facilities & Structures: Wastewater Treatment Facilities
Total Respondents:		7
Lake Erie - Niagara River		
	42%	Boundaries: Parcels
	32%	Facilities & Structures: Drinking Water Supply
	26%	Facilities & Structures: Wastewater Treatment Facilities
	26%	Bathymetry: Bathymetric Contours/Grids
	21%	Facilities & Structures: Hazardous Material Storage Site
	21%	Shoreline: Shoreline
	21%	Habitat: Restoration
	21%	Facilities & Structures: Stormwater Management
	21%	Shoreline: Flood Zones
	16%	Land Use / Land Cover: Conservation Lands and Easem
Total Respondents:		19

Watershed	% Respondents	Data Category
Lake Ontario		
	33%	Bathymetry: Bathymetric Contours/Grids
	30%	Land Use / Land Cover: Critical Natural Areas
	30%	Facilities & Structures: Wastewater Treatment Facilities
	26%	Habitat: Coastal Habitat
	26%	Boundaries: Parcels
	26%	Land Use / Land Cover: Conservation Lands and Easem
	22%	Facilities & Structures: Hazardous Material Storage Site
	22%	Facilities & Structures: Drinking Water Supply
	22%	Invasives: Terrestrial Vegetation
	19%	Facilities & Structures: Stormwater Management
	Total Respondents: 27	
Long Island Peconic Bay		
	33%	Habitat: Coastal Habitat
	33%	Hydrology: Groundwater
	30%	Facilities & Structures: Stormwater Management
	30%	Facilities & Structures: Wastewater Treatment Facilities
	27%	Boundaries: Parcels
	27%	Facilities & Structures: Drinking Water Supply
	27%	Habitat: Estuarine Habitat
	23%	Water Chemistry
	20%	Facilities & Structures: Hazardous Material Storage Site
	20%	Shoreline: Shoreline
	Total Respondents: 30	
Long Island Sound		
	33%	Habitat: Coastal Habitat
	30%	Hydrology: Groundwater
	27%	Facilities & Structures: Drinking Water Supply
	27%	Facilities & Structures: Stormwater Management
	27%	Facilities & Structures: Wastewater Treatment Facilities
	27%	Habitat: Estuarine Habitat
	24%	Boundaries: Parcels
	18%	Facilities & Structures: Hazardous Material Storage Site
	18%	Bathymetry: Bathymetric Contours/Grids
	18%	Hydrology: Recharge
	Total Respondents: 33	

Watershed	% Respondents	Data Category
Long Island South Shore		
	31%	Facilities & Structures: Stormwater Management
	29%	Facilities & Structures: Wastewater Treatment Facilities
	29%	Hydrology: Groundwater
	29%	Habitat: Coastal Habitat
	29%	Habitat: Estuarine Habitat
	26%	Facilities & Structures: Drinking Water Supply
	23%	Boundaries: Parcels
	23%	Land Use / Land Cover: Conservation Lands and Easem
	20%	Facilities & Structures: Hazardous Material Storage Site
	20%	Water Chemistry
	Total Respondents: 35	
Lower Hudson		
	46%	Habitat: Coastal Habitat
	38%	Habitat: Estuarine Habitat
	38%	Bathymetry: Bathymetric Contours/Grids
	31%	Habitat: Ecoregions
	31%	Habitat: Benthic Habitat
	23%	Habitat: Restoration
	23%	Land Use / Land Cover: Conservation Lands and Easem
	15%	Boundaries: Parcels
	15%	Facilities & Structures: Stormwater Management
	15%	Fisheries: Fish Distribution
	Total Respondents: 13	
New York Harbor		
	56%	Habitat: Coastal Habitat
	44%	Habitat: Estuarine Habitat
	33%	Bathymetry: Bathymetric Contours/Grids
	33%	Fisheries: Fish Distribution
	33%	Habitat: Restoration
	22%	Land Use / Land Cover: Conservation Lands and Easem
	22%	Invasives: Aquatic Vegetation
	22%	Shoreline: Shoreline
	22%	Habitat: Benthic Habitat
	22%	Shoreline: Environmental Sensitivity Index
	Total Respondents: 9	

Watershed	% Respondents	Data Category
Statewide		
	59%	Boundaries: Parcels
	28%	Land Use / Land Cover: Conservation Lands and Easem
	25%	Bathymetry: Bathymetric Contours/Grids
	22%	Habitat: Freshwater Wetlands
	22%	Land Use / Land Cover: Critical Natural Areas
	22%	Invasives: Terrestrial Vegetation
	16%	Invasives: Aquatic Vegetation
	16%	Habitat: Coastal Habitat
	16%	Facilities & Structures: Stormwater Management
	16%	Geology: Surficial
	16%	Geology: Soils
	16%	Facilities & Structures: Hazardous Material Storage Site
	16%	Habitat: Ecoregions
	16%	Birds: Bird Distribution
	Total Respondents: 32	
Susquehanna		
	50%	Invasives: Terrestrial Vegetation
	38%	Facilities & Structures: Hazardous Material Storage Site
	38%	Boundaries: Parcels
	38%	Geology: Soils
	38%	Facilities & Structures: Stormwater Management
	38%	Land Use / Land Cover: Conservation Lands and Easem
	25%	Facilities & Structures: Wastewater Treatment Facilities
	25%	Shoreline: Flood Zones
	25%	Facilities & Structures: Drinking Water Supply
	25%	Habitat: Freshwater Wetlands
	Total Respondents: 8	
Upper Hudson		
	50%	Bathymetry: Bathymetric Contours/Grids
	50%	Boundaries: Parcels
	42%	Land Use / Land Cover: Conservation Lands and Easem
	25%	Land Use / Land Cover: Critical Natural Areas
	25%	Habitat: Ecoregions
	25%	Habitat: Coastal Habitat
	25%	Habitat: Benthic Habitat
	25%	Facilities & Structures: Hazardous Material Storage Site
	17%	Habitat: Restoration
	17%	Fisheries: Fish Distribution
	Total Respondents: 12	

TABLE 13. Top 10 Data Priorities by Profession*

Profession	% Respondents	Data Category
Administration		
	67%	Shoreline: Shoreline
	67%	Facilities & Structures: Stormwater Management
	33%	Shoreline: Flood Zones
	33%	Socioeconomic: Census Data
	33%	Land Use / Land Cover: Conservation Lands and Easements
	33%	Hydrology: Recharge
	33%	Habitat: Restoration
	33%	Habitat: Estuarine Habitat
	33%	Habitat: Coastal Habitat
	33%	Land Use / Land Cover: Critical Natural Areas
Total Respondents: 3		
Ecology		
	44%	Land Use / Land Cover: Conservation Lands and Easements
	33%	Underwater Utilities: Outfalls
	33%	Habitat: Restoration
	33%	Fisheries: Fish Distribution
	22%	Habitat: Coastal Habitat
	22%	Shoreline: Environmental Sensitivity Index
	22%	Invasives: Terrestrial Vegetation
	22%	Land Use / Land Cover: Critical Natural Areas
	22%	Boundaries: Parcels
	22%	Plankton: Ichthyoplankton
	22%	Habitat: Freshwater Wetlands
	22%	Bathymetry: Bathymetric Contours/Grids
Total Respondents: 9		
Education		
	50%	Bathymetry: Bathymetric Contours/Grids
	33%	Land Use / Land Cover: Critical Natural Areas
	33%	Invasives: Aquatic Vegetation
	33%	Invasives: Terrestrial Vegetation
	25%	Boundaries: Parcels
	25%	Shoreline: Shoreline
	25%	Land Use / Land Cover: Conservation Lands and Easements
	25%	Habitat: Coastal Habitat
	25%	Habitat: Freshwater Wetlands
	17%	Facilities & Structures: Wastewater Treatment Facilities
	17%	Water Chemistry
	17%	Hydrology: Groundwater
	17%	Shoreline: Flood Zones
	17%	Habitat: Estuarine Habitat
	17%	Facilities & Structures: Drinking Water Supply
Total Respondents: 12		

Profession	% Respondents	Data Category
Engineering		
	63%	Facilities & Structures: Stormwater Management
	50%	Boundaries: Parcels
	50%	Facilities & Structures: Drinking Water Supply
	38%	Hydrology: Groundwater
	38%	Hydrology: Recharge
	25%	Geology: Soils
	25%	Hydrology: Aquifers
	25%	Facilities & Structures: Wastewater Treatment Facilities
	25%	Bathymetry: Bathymetric Contours/Grids
	13%	Invasives: Aquatic Vegetation
Total Respondents: 8		
Environmental Science		
	32%	Geology: Soils
	32%	Habitat: Freshwater Wetlands
	32%	Bathymetry: Bathymetric Contours/Grids
	29%	Invasives: Terrestrial Vegetation
	29%	Facilities & Structures: Stormwater Management
	29%	Habitat: Estuarine Habitat
	25%	Habitat: Coastal Habitat
	21%	Water Chemistry
	21%	Land Use / Land Cover: Critical Natural Areas
	18%	Boundaries: Parcels
Total Respondents: 28		
Health		
	100%	Facilities & Structures: Drinking Water Supply
	100%	Hydrology: Groundwater
	100%	Boundaries: Parcels
	50%	Water Chemistry
	50%	Land Use / Land Cover: Public Beaches
	50%	Geology: Soils
	50%	Facilities & Structures: Wastewater Treatment Facilities
Total Respondents: 2		
Marine Science		
	57%	Habitat: Estuarine Habitat
	43%	Habitat: Coastal Habitat
	43%	Habitat: Benthic Habitat
	43%	Bathymetry: Bathymetric Contours/Grids
	29%	Habitat: Ecoregions
	29%	Shoreline: Shoreline
	14%	Socioeconomic: Census Data
	14%	Shoreline: Environmental Sensitivity Index
	14%	Tides: Water Gauging: Coastal Observing Systems
	14%	Boundaries: Parcels
Total Respondents: 7		

Profession	% Respondents	Data Category
Planning/Policy		
	47%	Boundaries: Parcels
	40%	Land Use / Land Cover: Critical Natural Areas
	33%	Shoreline: Flood Zones
	27%	Facilities & Structures: Hazardous Material Storage Sites
	27%	Bathymetry: Bathymetric Contours/Grids
	27%	Land Use / Land Cover: Conservation Lands and Easements
	27%	Facilities & Structures: Drinking Water Supply
	27%	Facilities & Structures: Wastewater Treatment Facilities
	20%	Geology: Soils
	20%	Habitat: Freshwater Wetlands
Total Respondents: 15		

TABLE14. User Defined Data Priorities

User Defined Data Categories	
acoustic reflectivity in shallow water	Groundwater chemistry
Addressing	groundwater use patterns
Aerial Photography	Habitat - all
Ag types	Habitat Types: Old Growth Forests etc.
Ag use areas	Habitat: Marine
an updated version of conservation land and easements	Habitats (with clues about species interaction/dependency) and Ecoregions
Aquatic Vegetation	high res air photography
Beach closures	high resolution topography
beach projects	Historic tidal wetlands trends
Bird survival rates	Historical LandSat imagery
changes in the local geographical areas affecting wetlands	human interaction with marine mammals and sea turtles as abundance increases
chemical contamination areas	Human use type/amount
Climatological data at better than 1km (e.g. 30m)	industrial waste-contaminated site
coastal tourism activities	Infrared Imagery Analysis
Concentrated Animal Feeding Operations	inlet modeling
contaminated sites	Key Resources: Power plants
continoues spatial locations of individual tagged fish in order to understand their use of habitat	known spill sites in a geographic format
Cover types	Land use change over time
Critical infrastructure: bridges	Land Use Land Cover General
Depth to groundwater	Land Use Land Cover vegetation and permeability
Detail 3D data	Landcover data to use for habitat classification
Distribution and size of existing water service lines	landfill locations
Dredge/Sludge Deposit Zones	Landuse - Specific use
DTM - DEM	Landuse:landcover: all vegetation
Elevation data	Landuse:urban areas
Elevation datasets - accuracy and resolution (need better)	LIDAR
Endangered	LIDAR
Endangered Species Locations	Lidar - elevation
Environmental health data	Loss of bay habitats
Environmental health index	More comprehensive dams database
Extent of existing sewer service areas and distribution of sewer lines	Non Point Source Run Off
Fish survival rates	Oblique photography of Lake Erie shoreline
flood zones	Park areas
forest blocks	Pesticide use maps
frequency of seal pupping in the area	petroleum bulk storage facilites
GAP Analyses	Places where stocked fish are released
General Flooding outside of Shoreline	plant communities

User Defined Data Categories

Point pollution sources	Transportation systems - roads and rail
Population density and wastewater treatment (any facility)	undeveloped private lands for potential conservation
population/housing density along shoreline	Updated NYS DEC Tidal Wetlands Coverage
Precipitation (snowfall	Vegetation (land and water)
pre-settlement vegetation	vegetation mangement
projected changes for marine systems under climate change	water chemistry
Proposed industrial uses	Water Chemistry
Protected Lands (federal	Water Chemistry
Public Access points	water levels data
Rainfall : current & historical	Water Quality/ Classification
repeat bathymetric surveys in all water depths to determine temporal change	watershed boundaries
riparian buffers	watershed boundaries: groundwater
roads	watershed boundaries: surface
Roads	Watershed drainage
roads major and minor (good detail needed)	watershed effects of salt
Runoff (volume and storage capacity) and flood zones	watersheds
sand distrbution	wildlife diseases
sea turtle distribution and abundance habitat use	
sediment cores in shallow water (shallow water = water less than 4 meters at MLLW)	
sewage treatment plant locations	
shallow water bathymetry (shallow water = water less than 4 meters at MLLW)	
Shoreline change over time (recession & accretion)	
Significant Habitat Areas	
Snow cover and snow depth at higher resolution	
SPEDES/pollution discharge sites	
State lands i.e. WMA's	
Stream data (locations)	
stream morphology	
Streams	
Street Data	
Subwatersheds for all streams in NYS at 1:100	
Surface waters (rivers	
Terrestrial and Aquatic Habitat Inventories	
Test wells	
Tidal wetlands trends (high resolution)	
Topography	
Transportation Runoff Levels	

Appendix C: Listing of Data Priority Choices

APPENDIX C. Predefined Data Priority List

Data Category

Bathymetry: Bathymetric Contours/Grids	Invasives: Shellfish
Birds: Bird Distribution	Invasives: Terrestrial Vegetation
Boundaries: Parcels	Land Use / Land Cover: Critical Natural Areas
Facilities & Structures: Drinking Water Supply	Land Use / Land Cover: Public Beaches
Facilities & Structures: Fishing Access Facilities	Land Use / Land Cover: Conservation Lands and Easements
Facilities & Structures: Hazardous Material Storage Sites	Mammals: Marine Mammal Distribution
Facilities & Structures: Marine Facilities	Mammals: Terrestrial Mammal Distribution
Facilities & Structures: Navigation Aids	Plankton: Chlorophyll
Facilities & Structures: Piers	Plankton: Ichthyoplankton
Facilities & Structures: Port Facilities	Plankton: Phytoplankton
Facilities & Structures: Ship Anchorages	Plankton: Zooplankton
Facilities & Structures: Stormwater Management	Reptiles: Reptile Distribution
Facilities & Structures: Wastewater Treatment Facilities	Sediments: Dredge/Sludge Deposit Zones
Fisheries: Aquaculture Lease Sites	Sediments: Radionuclides
Fisheries: Bottom Fishing Areas	Sediments: Sediment Cores
Fisheries: Crab Distribution	Sediments: Suspended Sediments
Fisheries: Echinoderm Distribution	Shoreline: Environmental Sensitivity Index
Fisheries: Fish Distribution	Shoreline: Flood Zones
Fisheries: Jellyfish Distribution	Shoreline: Hard Shore
Fisheries: Lobster Distribution	Shoreline: Shoreline
Fisheries: Macroinvertebrates	Socioeconomic: Census Data
Fisheries: Shellfish Distribution	Socioeconomic: Coastal Enterprises
Geology: Bedrock	Socioeconomic: Historic Structures
Geology: Soils	Tides: Water Gauging: Coastal Observing Systems
Geology: Surficial	Tides: Water Gauging: Tide Prediction/Benchmarks
Habitat: Artificial Reefs	Transportation: Ferry Routes
Habitat: Benthic Habitat	Transportation: Navigation Channels
Habitat: Coastal Habitat	Underwater Utilities: Outfalls
Habitat: Deepwater Habitat	Underwater Utilities: Communication Lines
Habitat: Ecoregions	Underwater Utilities: Pipelines
Habitat: Estuarine Habitat	Underwater Utilities: Power Lines
Habitat: Freshwater Wetlands	Water Chemistry
Habitat: Reefs	Weather: Bay Buoy Data
Habitat: Restoration	
Habitat: Submerged Grasses	
Hydrology: Aquifers	
Hydrology: Groundwater	
Hydrology: Recharge	
Invasives: Aquatic Vegetation	