

# The New York Geographic Information Gateway



2017 NY GIS Association GIS Application Award



Special Achievement in GIS 2016 Award Winner



Exemplary Systems in Government Distinguished System 2017 Award

## Services / Expertise

GIS Application Development  
Esri ArcGIS Online  
Data Portal  
Story Mapping  
Web Hosting

## Market

State Government  
Climate Resilience  
Regional & Statewide Planning  
Infrastructure Risk Assessment  
Policy Development

## Project Location

State of New York

## Date Completed

2013– Ongoing

## Project Owner

New York Department of State, Office of Planning and Development (OPD)

## Project ID#

13-046

## Project Manager

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## Application Address

<http://opdgig.dos.ny.gov>

## Published Maps

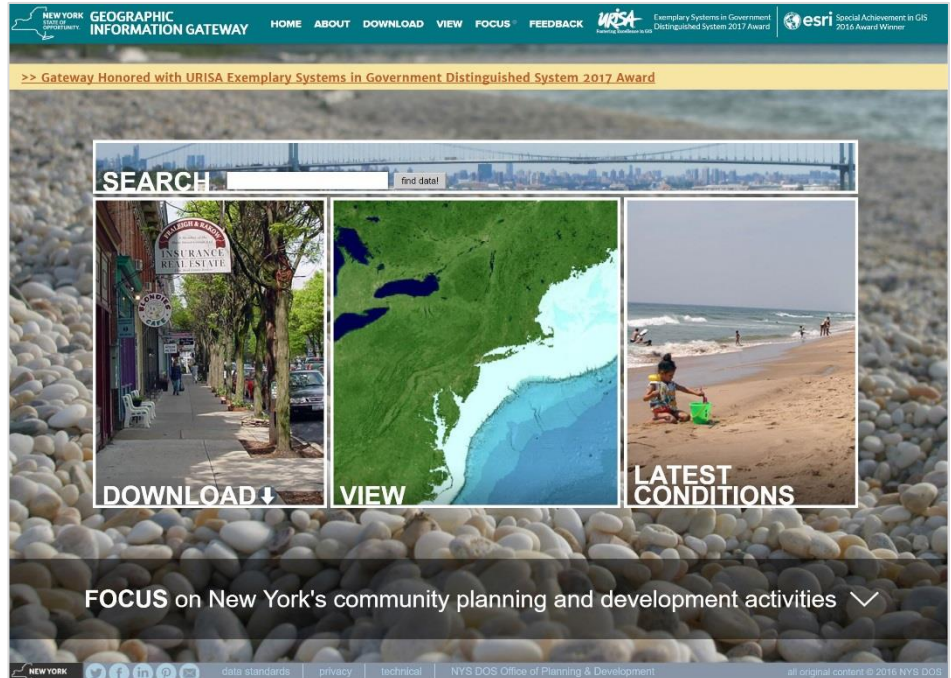
<https://www.esri.com/en-us/esri-map-book/maps#/details/8/4>



ArcGIS Online Specialty



Partner Network Silver



*The New York Geographic Information Gateway serves as a public communication tool, offering access to over 700 datasets and information about OPD's programs, including climate change & resilience planning activities.*

STONE has been working with the New York Department of State, Office of Planning and Development (OPD) since 2005 to develop a system to communicate planning efforts to a variety of stakeholders and to disseminate data and information about their programs. Since beginning work with OPD, the system has grown from a data inventory within a Microsoft Access Database to a fully integrated web-based mapping system with a data catalog, mapping capabilities and tools, and stories.

In 2022, Stone will begin a two-year project to migrate the current New York Geographic Information Gateway (Gateway) to an ArcGIS HUB Platform. This migration will move the OPD away from a highly customized application to a more secure, easily maintained and updated system that will serve a wide variety of needs. The ArcGIS Hub platform will include all existing functionality of the current Gateway and new tools and technology that will allow users easier access to the data and information that they come to the Gateway in search of.

The New York Geographic Information Gateway (Gateway), in its current and future form, serves as a “one-stop, state of the art website to find data, information, tools and expert knowledge relevant to New York’s existing uses and resources.” The Gateway web site allows users to view datasets related to the OPD’s programs, including the Ocean & Great Lakes Program among five others. The full site includes functionality to browse, search, download, and view datasets. Users can explore data through the

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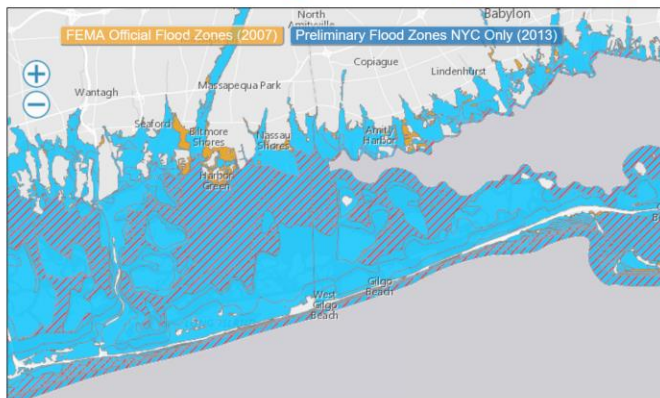
web map viewer, by adding datasets to Google Earth, or by reviewing metadata. There is also extensive information on the various programs at the OPD presented as stories.

The Gateway development process began in 2013, with a visioning session to more fully understand the purpose of the application. The visioning session involved program managers, data developers, and professionals within the OPD and incorporated exercises to capture the full breadth of potential scope. Following the visioning session, we worked with the OPD and various stakeholders to collect 'user stories' to understand specific functionality that may be needed to realize the vision.

Story mapping is an integral part of the Gateway website so that the Office of Planning and Development can convey how data can be used to inform decision-making and planning processes (<http://opdgig.dos.ny.gov/#/storyTemplate/10/1/1>). One example is a story about how geospatial data can be used to understand what kinds of risks communities may face during extreme weather events and how they can implement resilience planning in their area. The story includes interactive maps, infographics, images, and videos to illustrate issues such as sea-level rise, flood impacts, and susceptible natural shoreline features. The story also highlights solutions and how the Office of Planning and Development is working with communities to improve resilience to extreme events.

## DOS RISK AREAS help communities plan

- 1 communities at risk
- 2 identifying risk
- 3 applying dos coastal risk areas
- 4 informing resilience planning



### IDENTIFYING RISK is crucial to building resilient communities

Risk assessment helps communities understand, identify, and delineate key areas vulnerable to future storms and flooding. While several products exist to help people identify flood risk, such as FEMA floodplains maps, no single product characterizes the cumulative flood risks facing coastal communities. The Department of State (DOS) partnered with the National Oceanic and Atmospheric Administration (NOAA) and the Federal Emergency Management Agency (FEMA) combine these different pieces of information (see list below) to identify New York's most vulnerable coastal areas. The result was the "DOS Coastal Risk Areas" which classify areas of extreme, high, and moderate risk for use in future resilience planning.

#### explore the data that were combined to create the dos coastal risk areas

- 1: elevation
- 2: floodplain  
Understanding which areas are likely to be inundated by water during intense storm events is a key step in identifying areas vulnerable to flood hazards. As a part of their Flood Insurance Study, FEMA produces maps delineating the Special Flood Hazard Area (SFHA) that would be inundated during a "100-year" and "500-year" flood. Over the course of a 30-year mortgage, a homeowner has a 26% chance of experiencing a "100 year flood" and a 6% chance of experiencing a "500-year flood." To better understand your FEMA flood hazard area, please click [here](#).
- 3: sea, lake, and overland surges from hurricanes (slosh)
- 4: sea level rise scenario
- 5: shallow coastal flooding
- 6: susceptible natural shoreline features

The DOS Risk Area Story illustrates how extreme weather events may impact coastal communities and what the Office of Planning and Development is doing to improve resilience in these areas (<http://opdgig.dos.ny.gov/#/storyTemplate/10>).

The Gateway site has been developed with the client in mind. The site's various elements, such as stories, metadata, and data records, can be added and configured by administrative users at OPD. Additionally, data partners are being established so that data from outside agencies can be accessible through the Gateway and vice versa. The first release of the site completed in March 2015 and, over time, the Gateway site has grown to include more functionality, information, data, and stories related to their six programs. The Gateway is hosting over 700 datasets for use in planning activities and as a communication tool for the public. Most recently, Stone has incorporated data into the Gateway that is mined from Facebook daily to understand consumer preferences geographically and temporally. Since launch, Stone has hosted and managed the Gateway on our Amazon Web Services infrastructure.

# The New York Geographic Information Gateway



The Geographic Information Gateway has received the 2016 Esri Special achievement in GIS award, the URISA Exemplary Systems in Government Distinguished System 2017 award, and the 2017 NY GIS Association GIS Application Award. In addition, the Gateway's DOS Coastal Risk Areas map was selected for publication within Esri's Map Book (Volume 33) (<https://www.esri.com/en-us/esri-map-book/2018/maps#/details/8/4>).