The New York Geographic Information Gateway

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2017 NY GIS Association GIS Application Award

Special Achievement in GIS 2016 Award Winner

URISA Fostering Excellence in GIS
Exemplary Systems in Government Distinguished System 2017 Award

esri Partner Network Silver

Services / Expertise
ArcGIS Online
ArcGIS Story Maps
Web AppBuilder for ArcGIS
ArcGIS Experience Builder
Customization
Web Hosting

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

Project Location
State of New York

Date Completed
2013–Present

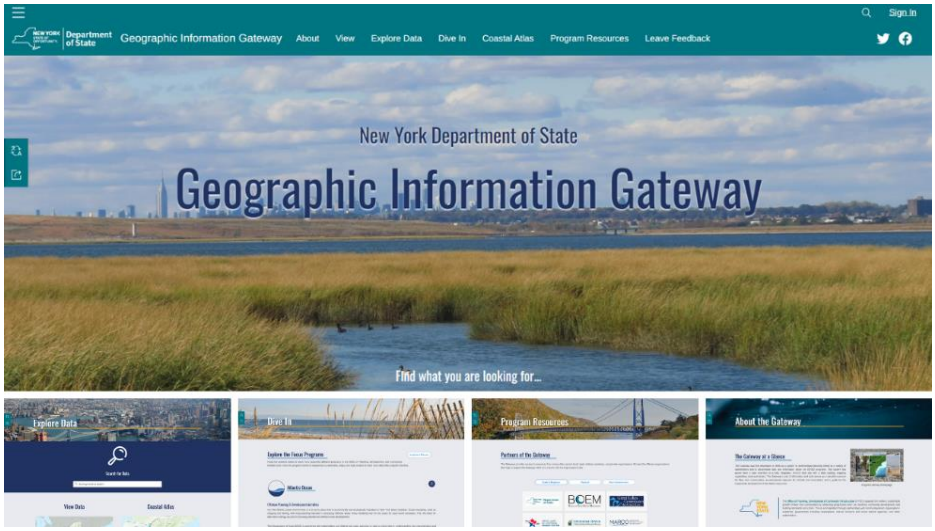
Project Owner
New York Department of State, Office of Planning, Development and Community Infrastructure (OPDCI)

Project ID#
13-046

Project Team
Barbara Patterson (Project Manager)
Paige Gebhardt, GISP
Nick Floersch
Mary Haley

Link to Online Application
https://new-york-opd-geographic-information-gateway-nysdos.hub.arcgis.com/

Published Data & Maps
https://new-york-opd-geographic-information-gateway-nysdos.hub.arcgis.com/pages/explore-data



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.

SINCE 2005, Stone has collaborated with the New York Department of State, Office of Planning, Development & Community Infrastructure (OPDCI), formerly known as the Office of Planning and Development (OPD), to establish an effective system for distributing program data and communicating planning initiatives to a diverse range of stakeholders. Over the years, the New York Geographic Information Gateway has evolved from a simple data inventory to a fully integrated web-based mapping system, equipped with a data catalog, mapping tools, stories, and other features. The Gateway hosts over 700 datasets for use in planning activities and as a communication tool for the public.

In 2022, Stone began a two-year project to migrate the Gateway to ArcGIS Hub which is more secure, easier to maintain, and frequently updated to meet diverse needs. The Hub site was launched in April 2023 and the team continues to add functionality. The ArcGIS Hub platform includes all existing functionality of the current Gateway and new tools and technology allow New Yorkers to explore data relevant to their community's growth and development, recreational opportunities, immersive learning experiences, resources connecting state and national planning efforts, and unique and approachable mapping tools.

Data was hosted and managed on Amazon Web Services infrastructure. Stone migrated over 700 datasets and associated metadata to ArcGIS Online using Python and ArcGIS Notebooks. Stone introduced Web AppBuilder and ArcGIS Experience Builder as replacements for the old website's outdated tools. Since Esri's out-of-the-box tools could not perform all the functions of the old Gateway, Stone customized ArcGIS Experience Builder widgets.

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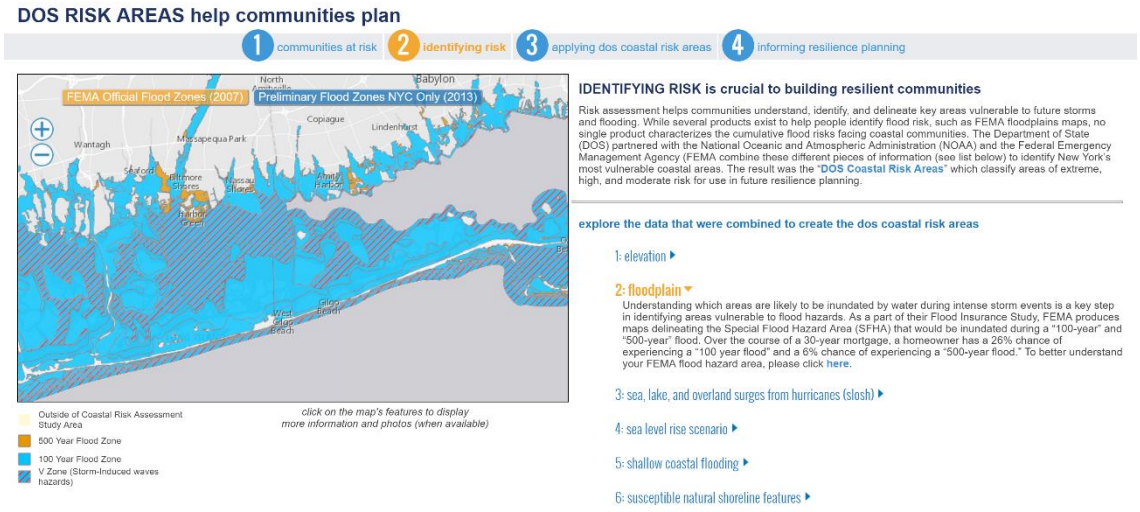
In its current and future form, the Gateway serves as a "one-stop, state-of-the-art website to find data, information, tools and expert knowledge relevant to New York's existing uses and resources." The Gateway website allows users to view datasets related to the OPDCI's programs, including the Ocean & Great Lakes Program, among five others. The full site includes functionality to browse, search, download, and view datasets. Users can explore data through the web map viewer, add datasets to their own web maps, or review metadata. There is also extensive information on the various programs at the OPDCI presented as ArcGIS Story Maps.

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.



The original DOS Risk Area Story illustrating how extreme weather events may impact coastal communities and what the Office of Planning and Development is doing to improve resilience in these areas.

Story mapping is an integral part of the Gateway website so that the OPDCI can convey how data can be used to inform decision-making and planning processes (https://new-york-opd-geographic-information-gateway-nysdos.hub.arcgis.com/apps/8174c66ee307450fa392756a9918c46d/explore). One example is a story about how geospatial data can be used to understand the risks communities may face during extreme weather events and how they can implement resilience planning in their area. This story has been updated from its original release and 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 OPDCI works with communities to improve resilience to extreme events.

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 OPDCI. Additionally, partnerships are in place so that data from outside agencies can be accessed through the Gateway and vice versa. Partners include the New York State ITS GIS Program Office (GPO) and the National Oceanic and Atmospheric Administration (NOAA). The Geographic Information Gateway 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).