

# STATE REPORT CARDS

The Coalition of Geospatial Organizations (COGO) has used the traditional A-F system to grade the national spatial data infrastructure (NSDI) development effort, naming the federal agencies responsible for eight data layers in the NSDI. With the GMA, NSGIC turns to its own members and measures their contributions to the NSDI.

NSGIC developed a questionnaire that was sent to each of its member states. Forty-eight states responded. Their responses were then graded. The questionnaire, individual state responses, and the grades given each are available as separate resources. The responses were pulled together to grade each state on each of ten different themes – the eight COGO themes, plus a grade for state-level coordination activities and separate grades for leaf-on and leaf-off orthoimagery.

Both questionnaires and grading schemes were developed by NSGIC volunteers, each an expert in the theme they addressed.

In the pages that follow, participating states' report cards can be found. Please reference the full report for more information on methodology, grading schemes, and national trends.

### STATE SUMMARIES

STATE	OVERALL GRADE	STATE	OVERALL GRADE
Alabama	В	Montana	В
Alaska	B-	Nebraska	В
Arizona	B-	Nevada	С
Arkansas	B+	New Jersey	B+
California	B-	New Mexico	В
Connecticut	В	New York	A-
Delaware	В	North Carolina	A-
District of Columbia	A-	North Dakota	В
Florida	B+	Ohio	В
Georgia	D+	Oklahoma	В
Idaho	B-	Oregon	A-
Illinois	С	Pennsylvania	B+
Indiana	A	Rhode Island	В
lowa	B+	South Carolina	В
Kansas	A-	South Dakota	В
Kentucky	B+	Tennessee	A-
Louisiana	C+	Texas	B+
Maine	В	Utah	В
Maryland	B+	Vermont	B+
Massachusetts	A-	Virginia	B-
Michigan	B+	Washington	B+
Minnesota	A-	West Virginia	В
Mississippi	В	Wisconsin	B-
Missouri	C+	Wyoming	C+

METRICS:		
A – Superior	C – Average	F – Failure
B – Above average	D – Below average	N/A – Not Applicable

### Alabama Report Card

### **Overall Grade: B**

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	C +
Cadastre	D
Elevation	A -
Orthoimagery Leaf-Off	А
Transportation	В

FEDERAL-LED THEMES	GRADE
Geodetic Control	В
Government Units	A-
Hydrography	C +
Orthoimagery Leaf-On	В

#### **METRICS:**

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

Alaska Report Card	Overall Grade: B-	
COORDINATION		GRADE: C
STATE-LED THEMES		GRADE
Address		F
Cadastre		C-
Elevation		B+
Orthoimagery Leaf-Off		N/A
Transportation		В

FEDERAL-LED THEMES	GRADE
Geodetic Control	В
Government Units	А
Hydrography	А
Orthoimagery Leaf-On	С

#### **METRICS:**

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

# ALASKA GMA RESPONSE

We appreciate the opportunity to participate in the Geospatial Maturity Assessment. The assessment is of great value in that it gives an overview of the extensive geospatial efforts taking place across the nation. As always, Alaska is unique and the NSGIC GMA grades necessitate some explanation of key differences between state-led and federal-led themes as compared to other states in the nation.

Statewide Imagery, Elevation, and Hydrography are supported by U.S. Geological Survey (USGS) through the Alaska Mapping Initiative and Alaska Mapping Executive Committee (AMEC) coordination. AMEC coordinates with federal agencies and the State of Alaska in support of modernizing critical map layers.

Alaska's first statewide elevation product, airborne IfSAR (Interferometric Synthetic Aperture Radar), began in 2012 and was completed in 2020. The \$68M project was successfully completed through coordination between DOI agencies and the State of Alaska (AMEC).

Through the Alaska Mapping Initiative and AMEC coordination, USGS is supporting the update of terrestrial hydrography data (surface water, such as lakes and rivers). Over the next 9 years, hydrographic features and watershed boundaries will be derived from the Alaska IfSAR elevation data using Elevation-derived Hydrography (EDH) methodology.

Statewide imagery is supported through AMEC coordination with the Civil Applications Committee and is an orthomosaic of satellite based optical imagery. We strive for summer snow-free scenes, so the leaf-on and leafoff imagery surveyed in the GMA is not applicable to Alaska. Furthermore, Alaska does not have a National Agriculture Imagery Program (NAIP).

Other themes are accurately represented and show the challenges Alaska has ahead due to its sheer size and enormous efforts required to mature these themes.

> Leslie Jones GIO, State of Alaska



Arizona Report Card	Overall Grade: B-	
COORDINATION	GI	RADE: A
STATE-LED THEMES	G	RADE
Address	A	
Cadastre	F	
Elevation	C	
Orthoimagery Leaf-Off	D	+
Transportation	А	
FEDERAL-LED THEMES	G	RADE
Geodetic Control	B-	

Government Units A Hydrography Leaf-On B B

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### Arkansas Report Card

### Overall Grade: B+

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	A-
Cadastre	А
Elevation	B+
Orthoimagery Leaf-Off	A -
Transportation	В

FEDERAL-LED THEMES	GRADE
Geodetic Control	С
Government Units	А
Hydrography	A+
Orthoimagery Leaf-On	C +

#### **METRICS:**

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

### California Report Card

### Overall Grade: B-

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	F
Cadastre	C+
Elevation	B+
Orthoimagery Leaf-Off	D+
Transportation	F

FEDERAL-LED THEMES	GRADE
Geodetic Control	A-
Government Units	А
Hydrography	A+
Orthoimagery Leaf-On	A-

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### **Connecticut Report Card**

### Overall Grade: B

COORDINATION	GRADE: D
STATE-LED THEMES	GRADE
Address	A
Cadastre	А
Elevation	A -
Orthoimagery Leaf-Off	А
Tran sportation	В

FEDERAL-LED THEMES	GRADE
Geodetic Control	С
Government Units	C -
Hydrography	C +
Orthoimagery Leaf-On	В

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### **Delaware Report Card**

### Overall Grade: B

COORDINATION	GRADE: D
STATE-LED THEMES	GRADE
Address	A -
Cadastre	А
Elevation	A -
Orthoimagery Leaf-Off	A-
Transportation	В

GRADE
C-
А
В-
В

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

#### District of Columbia Report Card

### Overall Grade: A-

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	А
Cadastre	А
Elevation	А
Orthoimagery Leaf-Off	А
Transportation	A

FEDERAL-LED THEMES	GRADE
Geodetic Control	F
Government Units	А
Hydrography	A+
Orthoimagery Leaf-On	A-

#### METRICS:

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### Florida Report Card

### Overall Grade: B+

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	F
Cadastre	А
Elevation	A -
Orthoimagery Leaf-Off	А
Transportation	A

FEDERAL-LED THEMES	GRADE
Geodetic Control	A-
Government Units	А
Hydrography	A+
Orthoimagery Leaf-On	D

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### Georgia Report Card

### Overall Grade: D+

COORDINATION	GRADE: C
STATE-LED THEMES	GRADE
Address	F
Cadastre	В
Elevation	F
Orthoimagery Leaf-Off	F
Transportation	F

GRADE
F
В
С
С

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### Idaho Report Card

### Overall Grade: B-

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	F
Cadastre	В
Elevation	В
Orthoimagery Leaf-Off	N/A
Transportation	В

FEDERAL-LED THEMES	GRADE
Geodetic Control	В-
Government Units	В
Hydrography	В
Orthoimagery Leaf-On	A -

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# IDAHO GMA RESPONSE

Idaho thanks NSGIC for the efforts in gathering and compiling the Geospatial Maturity Assessment data. It provides a bi-annual opportunity for Idaho GIS stakeholders to do internal assessments and progress checks, and for the GIO to assess the progress of SDI work being accomplished by stakeholders and GIS professionals in state and local agencies/organizations. Idaho's grades have improved since the 2019 GMA which is indicative of the work of several individuals/teams/agencies and the GIS TWGs who are responsible for framework themes.

Idaho's grades are on par with expectations and current efforts. The grades help identify where additional efforts are needed, and they will be used as a benchmark for Idaho's ongoing work to address its full SDI development. Idaho lacks sustainable funding to enable and support state-led coordination through the Idaho Geospatial Office. Even though the grade for coordination is good, it does not adequately represent the near-heroic efforts of the volunteer work being done by Idaho's GIS professionals and stakeholders, nor the significant frustrations of these same groups for the work they could be accomplishing with adequate staffing and funding. Sustainable funding and other funding opportunities are an area of concern across all GIS domains in Idaho and are receiving significant focus in the next GIS strategic plan.

In 2021, Idaho was contacted by the USDOT to participate in the National Address Database (NAD). Subsequently we have started reaching out to data stewards in local governments to begin the process of finding and collecting authoritative address data to build an Idaho address database with the intent to submit Idaho addresses to the NAD and to support other crucial state initiatives like NG9-1-1 and broadband accessibility mapping. This will significantly improve the current low grade for addresses.

> Michael Woodford Chief Data officer/GIO, State of Idaho



### Illinois Report Card

### Overall Grade: C

COORDINATION	GRADE: C
STATE-LED THEMES	GRADE
Address	F
Cadastre	C+
Elevation	A
Orthoimagery Leaf-Off	D
Transportation	F

FEDERAL-LED THEMES	GRADE
Geodetic Control	B+
Government Units	В-
Hydrography	C +
Orthoimagery Leaf-On	В

#### **METRICS:**

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

### Indiana Report Card

### Overall Grade: A

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	A -
Cadastre	А
Elevation	A -
Orthoimagery Leaf-Off	A-
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	А
Government Units	A
Hydrography	A+
Orthoimagery Leaf-On	В

#### METRICS:

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

Iowa Report Card	Overall Grade: B+	
COORDINATION		GRADE: C
STATE-LED THEMES		GRADE
Address		B+
Cadastre		В-
Elevation		A-
Orthoimagery Leaf-Off		N/A
Transportation		A

GRADE
В
А
A -
В

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# IOWA GMA RESPONSE

The above NSGIC GMA Report Card for the State of Iowa presents an overview of the state of geospatial data and activities in the state. This is a tool for GIS professionals and decision makers in the state to look at the overall progress of geospatial efforts in the State of Iowa.

lowa has made significant progress since the last GMA in 2019. Since 2019, the Department of Homeland Security and Emergency Management has acquired nearly 100% of address points in the state through the NG911 program and contributed data to the national address database (NAD). Thanks to Federal partners (NRCS, FEMA, USGS), statewide USGS QL-2 lidar has been collected and is currently in QA/QC. The State of Iowa recently signed a Consolidated BAS (CBAS) MOA with the U.S. Census Boundary and Annexation Survey (BAS) to submit annexation and other boundary changes.

We are still struggling in coordination efforts. The State of Iowa has a fulltime geospatial coordinator funded partially through state technology grant funds and service agreements with agencies. The coordinator lacks the positional authority to influence policy at the state level. Coordination efforts are focused within state agencies and local government where there is opportunity. Iowa also lacks a formal coordinating council.

> Patrick Wilke-Brown GIS Coordinator, Office of the CIO



### Kansas Report Card

### Overall Grade: A-

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	А
Cadastre	А
Elevation	A-
Orthoimagery Leaf-Off	А
Transportation	В

FEDERAL-LED THEMES	GRADE
Geodetic Control	В-
Government Units	А
Hydrography	A -
Orthoimagery Leaf-On	В

#### METRICS:

- A Superior
- B Above average
- C Average

D - Below average

F - Failure N/A - Not Applicable

# KANSAS GMA RESPONSE

The Kansas GIS program appreciates the opportunity to participate in the GMA. This important endeavor provides valuable insight and information that we can share with fellow GIS professionals and decision-makers across the state. The results of the 2021 GMA are reasonable and accurate; however, it is important to note some key items that have allowed us to make progress with regard to specific data themes.

Statewide address points, road centerlines, and high-resolution leaf-off orthoimagery would not be possible without the Kansas 911 Coordination Council (Council) and coordination with local jurisdictions. Prior to the Council's Next Generation 911 (NG911) program, we struggled with different approaches, funding, and outreach models regarding these data themes. The Kansas NG911 program provided the funding, focus, and urgency that ultimately led to the development and maintenance of the statewide data resources. Without the NG911 program, we'd likely still be spinning our wheels.

Additionally, we are fortunate to have completed two rounds of statewide LiDAR acquisition. However, this would not have been possible without the funding support of our federal partners, primarily the Natural Resources Conservation Service (NRCS) and the United States Geological Survey (USGS). The overwhelming majority of LiDAR acquisition in Kansas has been funded with federal dollars.

During the coming year we intend to enhance our level of coordination and support regarding hydrography and governmental units.

> Ken Nelson GIS Section Manager, Kansas Geological Survey



### Kentucky Report Card

#### Overall Grade: B+

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	B+
Cadastre	В-
Elevation	A-
Orthoimagery Leaf-Off	А
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	B+
Government Units	А
Hydrography	C+
Orthoimagery Leaf-On	В

#### METRICS:

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# KENTUCKY GMA RESPONSE

The Commonwealth is pleased with the GMA scoring for 2021. It is felt that the grades truly reflect the status of our governance and coordination efforts, as well as each of the "themed" layers being evaluated. The utilized scoring methodology is straightforward, and the final results are very useful.

Average scores for specific themes highlight the fact that there is progress to be made here in Kentucky. These results will help us to reevaluate the focus of our efforts and the allocation of resources going forward. We've known for a long time that there was work to be done as it relates to parcel data, hydrography, addresses, and leaf-off imagery. The 2021 scores reflect that progress was made, but there is still more to be accomplished.

As most in the NSGIC community already know, there is great value in seeing how we measure up against other states. Sharing these nationallevel results with our leadership, and the Geographic Information Advisory Council, helps to underscore our level of success, but also reaffirms the fact that we must dedicate more resources to specific themes. Having these grades in-hand is crucial when approaching state-level stakeholders regarding next steps and during our overall strategic planning process.

From my chair, seeing which states excel in a certain category lets me know who to contact for guidance and direction. It is my aim to learn from other individuals and their successful programs. There is great value in being able to pick up the phone and reach out to a counterpart that can point me in the right direction. In fact, that is one of the most valuable aspects of being a NSGIC member.

Once again, we truly appreciate the effort involved in compiling the assessment and sharing the results with the NSGIC community. Many thanks!

Kent Anness GIS Operations Manager



### Louisiana Report Card

#### Overall Grade: C+

COORDINATION	GRADE: C
STATE-LED THEMES	GRADE
Address	F
Cadastre	D-
Elevation	B+
Orthoimagery Leaf-Off	F
Transportation	A

FEDERAL-LED THEMES	GRADE
Geodetic Control	В
Government Units	А
Hydrography	A -
Orthoimagery Leaf-On	С

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

Maine Report Card	Overall Grade: B	
COORDINATION		GRADE: B
STATE-LED THEMES		GRADE
Address		A
Cadastre		D
Elevation		A
Orthoimagery Leaf-Off		В-
Transportation		A

FEDERAL-LED THEMES	GRADE
Geodetic Control	В-
Government Units	А
Hydrography	А
Orthoimagery Leaf-On	С
	0

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### Maryland Report Card

#### Overall Grade: B+

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	A -
Cadastre	А
Elevation	B+
Orthoimagery Leaf-Off	А
Transportation	A

FEDERAL-LED THEMES	GRADE
Geodetic Control	D+
Government Units	A-
Hydrography	A-
Orthoimagery Leaf-On	В

#### METRICS:

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

#### Massachusetts Report Card

### Overall Grade: A-

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	А
Cadastre	А
Elevation	A-
Orthoimagery Leaf-Off	А
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	B+
Government Units	А
Hydrography	A -
Orthoimagery Leaf-On	С

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### Michigan Report Card

#### Overall Grade: B+

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	C +
Cadastre	В-
Elevation	A-
Orthoimagery Leaf-Off	В
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	A-
Government Units	А
Hydrography	B +
Orthoimagery Leaf-On	C +

#### **METRICS:**

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

# MICHIGAN GMA RESPONSE

The 2021 Geospatial Maturity Assessment (GMA) reflects Michigan's continued focus on key Spatial Data Infrastructure themes. Michigan has established data programs for transportation and government unit boundaries and is just beginning a multi-year statewide elevation derived hydrography project that will improve the accuracy and establish a long-term data maintenance program for that data theme. Michigan's score on address and cadastre reflects the current lack of a complete statewide dataset that is openly available today, however there is continued progress of state and local partnerships to share this data for inter-governmental purposes.

The 2021 GMA score of B for orthoimagery leaf-off does not completely reflect the well-established Michigan Statewide Authoritative Imagery and LiDAR (MiSAIL) program that has provided statewide coordination around statewide aerial imagery (leaf-off) and LiDAR elevation data acquisition since 2010. This program has provided high-resolution leaf-off aerial imagery to all state agencies and local partners that join into the program and provides a key foundation imagery layer for GIS programs around the state. Leaf-on imagery has not been a high priority for Michigan as leaf-off imagery is the primary requirement. Michigan uses the United State Department of Agriculture's National Aerial Imagery Program (NAIP) imagery for any leaf-on needs.

Michigan now has complete statewide QL2 level LiDAR data, and this has become a valuable data resource for many programs. The elevation-derived hydrography project starting up in Michigan will also leverage this data.

Michigan's coordination score reflects a lot of the coordination activities that are present across the state. Coordination for many of Michigan's GIS programs such as the Michigan Geographic Framework and the MiSAIL program are managed through the Center for Shared Solution (CSS) in the state's Department of Technology, Management and Budget. CSS coordinates GIS activities across the state in partnership with the two GIS associations, the Michigan Communities Association of Mapping Professional (MiCAMP) and the Improving Michigan's Access to Geographic Information Networks (IMAGIN) organization. Coordination and collaboration across state government agencies, local government partners, and federal partners have led to the success of the completed statewide QL2 LiDAR data, the launch of a new hydrography improvement program, continued progress on Next Generation 911 GIS Readiness, and many other programs.

> Mark Holmes Geospatial Services Manager



### Minnesota Report Card

#### Overall Grade: A-

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	А
Cadastre	В
Elevation	A-
Orthoimagery Leaf-Off	C -
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	A-
Government Units	А
Hydrography	A+
Orthoimagery Leaf-On	А

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### Mississippi Report Card

#### Overall Grade: B

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	D+
Cadastre	D-
Elevation	A-
Orthoimagery Leaf-Off	B+
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	В-
Government Units	А
Hydrography	А
Orthoimagery Leaf-On	В

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### **Missouri Report Card**

#### Overall Grade: C+

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	F
Cadastre	D+
Elevation	В-
Orthoimagery Leaf-Off	B+
Transportation	А

GRADE
B+
C-
В-
C +

#### METRICS:

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

### Montana Report Card

#### Overall Grade: B

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	A-
Cadastre	А
Elevation	C-
Orthoimagery Leaf-Off	F
Transportation	С

FEDERAL-LED THEMES	GRADE
Geodetic Control	В-
Government Units	А
Hydrography	А
Orthoimagery Leaf-On	В

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### Nebraska Report Card

#### Overall Grade: B

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	В-
Cadastre	С
Elevation	A-
Orthoimagery Leaf-Off	D
Transportation	В

FEDERAL-LED THEMES	GRADE
Geodetic Control	В-
Government Units	А
Hydrography	B +
Orthoimagery Leaf-On	A -

#### **METRICS:**

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

# NEBRASKA GMA RESPONSE

Nebraska is satisfied with the grade it received in the 2021 Geospatial Maturity Assessment (GMA). Nebraska's consolidated Enterprise Platform continues to be effective within state government and continues to be utilized by an increasing number of state agencies. The partnership between state agencies and Esri and other vendors continues to strengthen. Recently, Nebraska entered into an Enterprise Agreement to help with GIS growth within the state.

Nebraska is still lacking the funding for LiDAR and imagery collection. The state is very appreciative of the federal agencies in the state who continue to fund and manage these projects. Within the next two years, Nebraska will have complete LiDAR coverage at a QL2 level.

The Nebraska State Surveyor's office has been educating GIS professionals and surveyors about the new geodetic datums that are part of the NGS 2022 initiative.

> John Watermolen State GIS Coordinator


Nevada Report Card	Overall Grade: C	
COORDINATION	GRADE: D	
STATE-LED THEMES	GRADE	
Address	F	
Cadastre	в-	
Elevation	D+	
Orthoimagery Leaf-Off	N/A	
Transportation	А	
FEDERAL-LED THEMES	GRADE	

FEDERAL-LED THEMES	GRADE
Geodetic Control	В-
Government Units	A-
Hydrography	С
Orthoimagery Leaf-On	С

#### METRICS:

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

### New Jersey Report Card

#### Overall Grade: B+

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	D+
Cadastre	А
Elevation	A-
Orthoimagery Leaf-Off	А
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	В
Government Units	А
Hydrography	А
Orthoimagery Leaf-On	C +

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# NEW JERSEY GMA RESPONSE

We applaud NSGIC's continuing efforts to provide benchmark information measuring each state's progress in building state spatial data infrastructures, and we are glad to be able to participate.

The scoring for the address theme in this iteration of the GMA is primarily based on participation in maintenance of the state-level address data by local address authorities, which in New Jersey's case are the 565 municipal governments. There are relatively few municipalities in New Jersey that have robust GIS programs, so very few of them have created address point data. Those that we are aware of have been incorporated into our program, but the low percentage that are able to contribute leads to our low grade on this theme in this year's GMA. Because of the lack of capability at the municipal level to do the initial data creation, we have chosen to pursue a strategy of first creating a base data set of address points from statewide data sources, and once that is mostly complete, encouraging local participation in its upkeep. This has been identified as a crucial step in our preparations for Next-Generation 9-1-1 and continues to be a high priority for the state's GIS program. Our address point data is now over 80% complete and we are focusing on quality improvements and subaddress completion. Although local participation is low, the data itself is in good shape. Under the scoring rubric used in the prior GMA survey, we believe it would fall in the B+ range.

Regarding leaf-on orthoimagery, like many eastern states, we do not pursue that data because it does not meet the needs of our mapping programs and New Jersey does not do crop reporting based on imagery. For imagery, we focus our resources on leaf-off products.

> Andy Rowan GIO, Office of Information Technology



### New Mexico Report Card

### Overall Grade: B

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	А
Cadastre	А
Elevation	A -
Orthoimagery Leaf-Off	D -
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	D+
Government Units	А
Hydrography	B +
Orthoimagery Leaf-On	В

#### METRICS:

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### New York Report Card

### Overall Grade: A-

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	А
Cadastre	А
Elevation	А
Orthoimagery Leaf-Off	А
Transportation	А

GRADE
В-
А
B+
В-

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# NEW YORK GMA RESPONSE

New York's grades in the Geospatial Maturity Assessment generally reflect the investment in and the maturity of the state's framework data programs, many of which have been in existence for nearly two decades. These grades are a tribute to the incredibly dedicated team at the NYS GIS Program Office.

The New York scores reflect the relative priority the GIS Program Office puts on each theme. These priorities are set using feedback from the entire GIS stakeholder community represented by the New York State Geospatial Advisory Council. For example, leaf-off orthoimagery is prioritized higher than leaf-on by the Council.

Publicly available GIS data and web services are key to scaling the impact of the investments New York makes in these framework data. This year, the web services authored by the GIS Program Office will answer over 800,000,000 requests.

> Frank Winters GIO, State of New York



### North Carolina Report Card

Overall Grade: A-

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	A
Cadastre	А
Elevation	A -
Orthoimagery Leaf-Off	А
Transportation	A

FEDERAL-LED THEMES	GRADE
Geodetic Control	A -
Government Units	А
Hydrography	С
Orthoimagery Leaf-On	В
NETDIOG	

#### METRICS:

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# NORTH CAROLINA GMA RESPONSE

North Carolina appreciates the opportunity to respond to the Geospatial Maturity Assessment (GMA). It provides a mechanism to determine progress, compare our state to others, and help direct future geospatial activities at a statewide level.

The Geographic Information Coordinating Council (GICC) and its broad representation of public and private sector stakeholders drives progress on all statewide geospatial activities. Coordination has been the key to progress for all the GMA themes including leaf-off orthoimagery, cadastre, elevation, and geodetic control.

Since the 2019 GMA, North Carolina invested in improving the address and governmental units themes particularly, each taking a different path. The Next Generation 911 project, funded and led by the NC 911 Board, drove the effort for a statewide, sustainable address theme. There are many diverse beneficiaries of this work in keeping with the NSGIC philosophy of "build once, use many times". Governmental units was identified two years ago for additional work to achieve the desired statewide, authoritative dataset. The data will be assembled from local government sources to a statewide level, minimizing the reporting burden and leading to a dataset that can be shared with the federal government.

There is a coordinated planning effort among the stakeholders to define and implement a statewide, local (high) resolution, elevation derived hydrography dataset. However, North Carolina still has additional work to achieve that goal. The next steps are identifying local government requirements, evaluating adoption of the NHD/3DHP, designating a steward, and proceeding toward full implementation.

> Tim Johnson Director, Center for Geographic Information and Analysis



### North Dakota Report Card

Overall Grade: B

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	B+
Cadastre	А
Elevation	В-
Orthoimagery Leaf-Off	D
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	С
Government Units	D+
Hydrography	A -
Orthoimagery Leaf-On	А

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# NORTH DAKOTA GMA RESPONSE

The North Dakota GMA Report Card provides a reasonable but subjective assessment of the listed themes. Relative to the previous year, our overall grade has somewhat dropped, largely due to the Orthoimagery Leaf-Off item. However, North Dakota is still a "NAIP imagery state" just like in 2019. We will look at this theme and our answers more closely for the next GMA.

Our grade for Governmental Units may have been higher if we would have accurately selected a higher percentage of incorporated areas having reliable boundaries. Again, we will look at this theme and our answers more closely for the next GMA.

The North Dakota State Parcel Program is credited with the increase in our Cadastre grade.

Bob Nutsch GIS Coordinator, State of North Dakota



Ohio Report Card	Overall Grade: B	
COORDINATION		GRADE: A
STATE-LED THEMES		GRADE
Address		B+
Cadastre		D+
Elevation		Α-
Orthoimagery Leaf-Off		B +
Transportation		В

FEDERAL-LED THEMES	GRADE
Geodetic Control	В-
Government Units	А
Hydrography	C -
Orthoimagery Leaf-On	A -

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### **Oklahoma Report Card**

#### Overall Grade: B

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	C -
Cadastre	В
Elevation	B+
Orthoimagery Leaf-Off	С
Transportation	А

GRADE
C-
A
А
В

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

Oregon Report Card	Overall Grade: A-	
COORDINATION		GRADE: A
STATE-LED THEMES		GRADE
Address		B+
Cadastre		В
Elevation		A-
Orthoimagery Leaf-Off		N/A
Transportation		А

FEDERAL-LED THEMES	GRADE
Geodetic Control	А
Government Units	А
Hydrography	А
Orthoimagery Leaf-On	А

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# OREGON GMA RESPONSE

The Oregon Geospatial Enterprise Office is pleased to participate in the NSGIC Geospatial Maturity Assessment. This assessment is an important element in the development and maintenance of the National Spatial Data Infrastructure. Oregon has been actively and deliberately engaged in creating our portion of the NSDI for the past two decades. We haven't made as much progress as we would have liked, but we have been fairly successful in some key aspects.

With regard to address points, we have made progress in the past two years with designation of a statewide Address Points Framework Steward at the Department of Human Services. The steward has made connections with many individual authoritative address point data providers in local governments, setting up work flows to have them submit address changes and assignments to the steward.

With regard to Orthoimagery Leaf-On, we have been fortunate to have significant federal funding from NRCS and BLM for one-foot, four-band statewide imagery. Many state and local government agencies also chipped in for that project. We hope to continue that approach, but the Oregon Geographic Information Council and the State Chief Information Officer are jointly supporting a budget proposal in the next legislative session to provide significant imagery funding on an ongoing basis, as well as two full time Framework Coordinator positions to augment and coordinate our state SDI efforts.

> **Cy Smith** DAS/CIO, Geospatial Enterprise Office



### Pennsylvania Report Card

#### Overall Grade: B+

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	D
Cadastre	В
Elevation	A-
Orthoimagery Leaf-Off	А
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	В
Government Units	А
Hydrography	B +
Orthoimagery Leaf-On	В
	_

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# PENNSYLVANIA GMA RESPONSE

Pennsylvania welcomes the opportunity to participate in NSGIC's biannual Geospatial Maturity Assessment, an exercise in self-assessment that assists us in defining our goals and opportunities in the geospatial environment. Pennsylvania views this as an opportunity to engage the appropriate entities to improve not only our grades on specific themes, but also to improve on the data that can be made available to our customers.

Like a school kid coming home with their report card, the Commonwealth was happy to see that we have shown an overall improvement since the last assessment was completed. The grading of the previous assessment clearly identified areas for improvement, and we are happy to see that we did indeed improve in a number of areas. We are especially proud to have eliminated any failing grades, while still seeing opportunities where we can make further progress. Our main area of focus for improvement continues to be on the state-led address theme and our contribution to the National Address Database (NAD). We are looking forward to the development of address points for use within the NG911 environment and the ability to utilize the work done for that effort to improve our NAD contribution. Since our NG911 project has significantly progressed in the past 1-plus years, it is likely that we'll be a NAD contributor in the near future.

We appreciate the grading effort and find it beneficial for us to be able to compare our progress as it ranks against other states. Additionally, it assists us in identifying areas for improvement that we can utilize as we plan our future geospatial activities and helps us to keep on track to maintain the excellent work that has already been accomplished.

> Mary Fulton Chief, Geospatial Services



### **Rhode Island Report Card**

Overall Grade: B

COORDINATION	GRADE: C
STATE-LED THEMES	GRADE
Address	В+
Cadastre	В
Elevation	B+
Orthoimagery Leaf-Off	A -
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	C+
Government Units	А
Hydrography	C +
Orthoimagery Leaf-On	В

#### METRICS:

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

### South Carolina Report Card

### Overall Grade: B

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	A -
Cadastre	C+
Elevation	A-
Orthoimagery Leaf-Off	А
Transportation	С

FEDERAL-LED THEMES	GRADE
Geodetic Control	A-
Government Units	A-
Hydrography	Incomplete - C
Orthoimagery Leaf-On	F
METDICS	

#### METRICS:

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

### South Dakota Report Card

Overall Grade: B

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	A -
Cadastre	C-
Elevation	B+
Orthoimagery Leaf-Off	С
Transportation	В

GRADE
В
А
А
В

#### METRICS:

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### **Tennessee Report Card**

### Overall Grade: A-

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	А
Cadastre	А
Elevation	А
Orthoimagery Leaf-Off	В+
Transportation	А

FEDERAL-LED THEMES	GRADE
Geodetic Control	B+
Government Units	А
Hydrography	В-
Orthoimagery Leaf-On	В
NETDIOS	

#### METRICS:

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

# TENNESSEE GMA RESPONSE

The State of Tennessee appreciates the opportunity to participate in the NSGIC led 2021 Geospatial Maturity Assessment. Overall, the grades we received accurately reflect the progress and current status of our GIS coordination efforts and statewide framework GIS data set development.

The high marks we received reflect the hard work and dedication that several people at many levels of government have poured into these efforts for many years. Starting with the Tennessee Base Mapping Program, from 2000-2007, many of the framework datasets were initially developed and are now being maintained at both the local and state level.

Future work needs to focus on enhancing the Hydrography dataset through the USGS 3DHP, as well as enhancing public access to these datasets through various mechanisms sponsored by the State GIS Coordination Office in Finance and Administration, Strategic Technology Solutions.

Future efforts of the Geospatial Maturity Assessment should include some measure of how these GIS framework datasets are being leveraged or applied by State agencies, local government, and the public to improve the well being of our citizens, improving efficiencies in government, protecting our environment, and expanding our economic development. Simply creating and maintaining GIS data to support the NSDI is not enough, we now have to maximize its potential use in all of these areas and beyond.

> Dennis Pederson Director, GIS Services



Texas Report Card	Overall Grade: B+	
COORDINATION		GRADE: A
STATE-LED THEMES		GRADE
Address		A -
Cadastre		А
Elevation		А
Orthoimagery Leaf-Off		В-
Transportation		В

FEDERAL-LED THEMES	GRADE
Geodetic Control	В
Government Units	В-
Hydrography	В-
Orthoimagery Leaf-On	В

#### **METRICS:**

- A Superior
- B Above average
- C Average

D - Below average

F - Failure N/A - Not Applicable

Utah Report Card	Overall Grade: B	
COORDINATION		GRADE: A
STATE-LED THEMES		GRADE
Address	,	A
Cadastre		Ą
Elevation		В
Orthoimagery Leaf-Off	1	D -
Transportation		A

FEDERAL-LED THEMES	GRADE
Geodetic Control	A-
Government Units	А
Hydrography	С
Orthoimagery Leaf-On	С

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### Vermont Report Card

#### Overall Grade: B+

COORDINATION	GRADE: A
STATE-LED THEMES	GRADE
Address	A
Cadastre	А
Elevation	A-
Orthoimagery Leaf-Off	А
Transportation	A

FEDERAL-LED THEMES	GRADE
Geodetic Control	B+
Government Units	С
Hydrography	В -
Orthoimagery Leaf-On	В

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

Virginia Report Card	Overall Grade: B-	
COORDINATION		GRADE: A
STATE-LED THEMES		GRADE
Address		A -
Cadastre		A
Elevation		F
Orthoimagery Leaf-Off		A -
Transportation		A

FEDERAL-LED THEMES	GRADE
Geodetic Control	D+
Government Units	D
Hydrography	С
Orthoimagery Leaf-On	C+

#### **METRICS:**

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

### Washington Report Card

### Overall Grade: B+

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	A -
Cadastre	А
Elevation	В-
Orthoimagery Leaf-Off	N/A
Transportation	В

FEDERAL-LED THEMES	GRADE
Geodetic Control	C+
Government Units	А
Hydrography	А
Orthoimagery Leaf-On	B+

#### **METRICS:**

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

### West Virginia Report Card

### Overall Grade: B

COORDINATION	GRADE: B
STATE-LED THEMES	GRADE
Address	А
Cadastre	А
Elevation	В
Orthoimagery Leaf-Off	D
Transportation	В

FEDERAL-LED THEMES	GRADE
Geodetic Control	В-
Government Units	А
Hydrography	Incomplete (C)
Orthoimagery Leaf-On	В-
METDICS	

#### METRICS:

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

### Wisconsin Report Card

### Overall Grade: B-

COORDINATION	GRADE: C
STATE-LED THEMES	GRADE
Address	F
Cadastre	А
Elevation	В
Orthoimagery Leaf-Off	A-
Transportation	В

GRADE
B+
А
В-
C +

#### **METRICS:**

- A Superior
- B Above average
- C Average
- D Below average

F - Failure N/A - Not Applicable

### Wyoming Report Card

### Overall Grade: C+

COORDINATION	GRADE: C
STATE-LED THEMES	GRADE
Address	F
Cadastre	А
Elevation	С
Orthoimagery Leaf-Off	B+
Transportation	А

#### METRICS:

- A Superior
- B Above average
- C Average D - Below average

F - Failure N/A - Not Applicable

# WYOMING GMA RESPONSE

It is gratifying to see Wyoming's grade improve from C- to C+. This slight bump is attributable to efforts both by the state and the federal government. The most significant effort on Wyoming's part is the reinstatement of the GIO-equivalent role, that being the current Enterprise GIS and Data Visualization Coordinator position. The other major contribution by our state government is the funding of our firstever leaf-off imagery program. This effort was spearheaded by our Department of Revenue to allow for desktop property assessments by county assessors. While access to the data is limited, it is an acknowledgment to the value such technology can bring to modernize that workflow and to state agencies in general. The significant improvement in our Elevation grade is only due to FEMA underwriting the collection of statewide LiDAR data to support floodplain mapping.

This year's grades certainly point to opportunities for improvement. Momentum is growing for a statewide address database program. Governmental units is another theme where increased state-level coordination would go a long way and benefit multiple stakeholders. Other efforts that would improve not only our grades but also the state geospatial ecosystem include working with the federal government more closely on leaf-on imagery through the NAIP program, bolstering our hydrography program through the creation of an NHD steward, support for state hosting of LiDAR data, and further improvements to our governance and financial support for a GIS program office.

> Karen Rogers GISP. Enterprise GIS & Data Visualization Coordinator, State of Wyoming

