

E.O. 14008 / FGDC Climate Mapping Report Update & Discussion



NGAC Meeting
June 29, 2021



Climate Mapping Sessions - Overview

Session 1 – Climate Mapping Report & Recommendations

- Introduction/Update – Ivan DeLoatch
- Overview of Draft Plan/Recommendations – Tony LaVoi
- Facilitated Discussion: Draft Recommendations – Travis Hardy

Session 2 – Innovation Lab Climate Concept

- Introduction – Ivan DeLoatch
- Overview of TOP program approach – Drew Zachary (Census)
- Overview of the TOP Climate Concept – David Herring (NOAA)
- Facilitated discussion: ideas from the NGAC on how to work with other sectors / suggestions on potential participants – Travis Hardy

Requirement

Executive Order 14008 (Tackling the Climate Crisis at Home and Abroad)

- Sec. 211(d): “...the Secretary of DOI and the Deputy Director of OMB, in their capacities as Chair and Vice-Chair of the FGDC, **shall assess and provide to the Task Force a report on the potential development of a consolidated Federal geographic mapping service that can facilitate public access to climate-related information that will assist Federal, State, local, and Tribal governments in climate planning and resilience activities.**”

Climate Mapping Report – Initial Activities

Approach:

- FGDC Secretariat is supporting FGDC Chair/Vice Chair in developing report and recommendations
- FGDC established interagency working group to develop draft report. Working group includes DOI, NOAA, NASA, DHS, and FGDC Secretariat
- Working through existing FGDC framework and review/approval process
- Seeking NGAC and stakeholder input and engagement
- Coordinating activities with other administration initiatives – including equity/environmental justice activities
- Multiple approaches will be pursued to address the requirements, including 1) leveraging existing agency capabilities, 2) utilizing Geoplatform shared service and contracts, 3) contracting for vendor solutions

Climate Mapping Report – Recent Activities

- Met with White House/OMB leadership to discuss guidance and direction for the Federal mapping service report.
- Key elements of draft report:
 - Identifying near-term and longer-term opportunities for improved data and services – focus on usability for state/tribal/local planners & decision makers
 - Building upon on existing capabilities (Geoplatform, Climate Resiliency Toolkit) to provide user-focused access to climate related information and applications
 - Designing interoperable climate-focused mapping service that can be reused to support other Administration priorities (environmental justice, equity, infrastructure, NEPA, etc.).
 - Making data findable, accessible, interoperable, reusable (FAIR), and organized to provide users access to information by climate category (drought, wildland fire, etc.).

FGDC Climate Mapping Report

Overview



Draft FGDC Climate Mapping Report

Contents:

- I. Executive Summary
- II. Background
- III. Summary of User Communities' Requirements
- IV. The Federal Data and Tools Landscape Today
 - Network of Service Providers
 - Role of Federal Geographic Data Committee
- V. Recommendations
- VI. Implementation
- VII. Conclusion

Summary of User Communities' Requirements

1. Find Data: Climate adaptation practitioners and local decision makers need to efficiently locate relevant data sets.

- Practitioners and decision makers need climate change data and information tailored to their specific location and context.

2. Use Data: Climate adaptation practitioners and local decision makers need to analyze and interpret relevant data sets.

- Practitioners and decision makers need the ability to visualize observed and projected local climate change on a map for a range of selected decision-relevant variables alongside their own local data.

3. Share Knowledge: Entities in the climate resilience network want to share knowledge in synchronous and asynchronous ways.

- Designers of GIS and analytics systems, practitioners, and decision makers want to use data-driven scenarios to help them understand and map the extent of the impacts that extreme events could have on their infrastructure and built environments.



- *18F, Climate data user study/results, 2016.*
- *U.S. Government Accountability Office, 2015. Climate Information: A National System Could Help Federal, State, Local, and Private Sector Decision Makers Use Climate Information. GAO-16-37.*

User Requirements v. Recommendations

User Requirements	Draft Recommendations
Find Data	<ul style="list-style-type: none">• Identify Authoritative Climate Mapping Data• Increase Climate Data Discoverability
Use Data	<ul style="list-style-type: none">• Migrate Federal Data to Cloud Environments• Make Science Knowledge Machine-Usable• Support User-Friendly Access to Climate Information
Share Knowledge	<ul style="list-style-type: none">• Pursue Innovative Partnerships across All Sectors

DRAFT Recommendations

- **Recommendation 1: Identify Authoritative Climate Mapping Data:** *Establish a set of climate and other Federal agency data that may be used for resilience planning across the Nation (A-16 connections)*
- **Recommendation 2: Increase Climate Data Discoverability:** *Improve searchability of Federal data repositories and decrease barriers to non-science professionals*
- **Recommendation 3: Migrate Federal Data to Cloud Environments:** *Transition Federal agency data from on-premise systems to commercial cloud environments, enabling enhanced analytics and processing using standards-based cloud-native technologies*

DRAFT Recommendations

- **Recommendation 4: Make Science Knowledge Machine-Usable:** *Collaborate with Open Science and Open Standards communities to develop climate mapping services better suited for machine processing and reuse, enabling equitable access to Federal climate knowledge*
- **Recommendation 5: Support User-Friendly Access to Climate Information:** *Utilize continuous user engagement to address needs, gaps, and opportunities, and to understand changes in user needs*
- **Recommendation 6: Pursue Partnerships across All Sectors:** *Explore new innovative collaborations across all sectors to build interoperable shared solutions to address complex climate challenges*

Implementation Approach

- Immediate next steps
 - NGAC Meeting – dialogue/discussion (6/29-30)
 - Draft report provided to FGDC and NGAC for review and comment (July)
 - Final review and approval by FGDC/DOI/OMB (July)
 - Coordinate with selected Administration EO teams on related activities
 - Final report submitted to White House Climate Task Force (August)
- Longer term steps
 - React to Administration guidance on report recommendations; modify approach as necessary
 - Form multi-agency team and develop project plans and resource estimates
 - Support a demonstration initiative via The Opportunity Project
 - Explore collaboration with the broader non-Federal stakeholder community on selected demonstration projects
 - Measure impacts of efforts; refine as needed

FGDC Climate Mapping Report

NGAC Dialogue



Discussion Questions for the NGAC

Based on what you have heard here today and the proposed recommendations as drafted:

- 1) What may be missing from the report? What should be emphasized?
- 2) What are a few 'big asks' the NGAC could help propose to accompany the recommendations in this report that might change the landscape and best support successful outcomes?
- 3) What will need to change (or operate in new new/innovative ways) in order to best support the implementation of these recommendations?
- 4) What follow-up actions should we plan to help promote dialogue & action on the report and recommendations?

DRAFT Recommendations

- **Recommendation 1: Identify Authoritative Climate Mapping Data:** Establish a set of climate and other Federal agency data that may be used for resilience planning across the Nation
- **Recommendation 2: Increase Climate Data Discoverability:** Improve searchability of Federal data repositories and decrease barriers to non-science professionals
- **Recommendation 3: Move Federal Data to a Cloud Environment:** Transition all data on the GeoPlatform to analytic-ready formats to prepare for cloud storage
- **Recommendation 4: Make Science Knowledge Machine-Usable:** Collaborate with Open Science and Open Standards Communities to develop climate mapping services better suited for machine reuse, enabling equitable access to Federal climate knowledge
- **Recommendation 5: Support User-Friendly Access to Climate Information:** Utilize continual stakeholder engagement to address needs, gaps, and opportunities, and to understand changes in user needs
- **Recommendation 6: Pursue Partnerships across All Sectors:** Collaborate across all sectors to build shared solutions to address complex climate challenges