

NGDA Dataset Report

Official NGDA Title: Bridges

Metadata Record Title: National Bridge Inventory - National Geospatial Data Asset (NGDA) Bridges

A-16 NGDA Theme: Transportation

Executive NGDA Theme Champion(s):

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Metadata:

Registration Status: Complete

Registered on 4/10/2014

GeoPlatform Link*: <https://www.geoplatform.gov/node/243/12a0026a-6423-43d7-bc4f-79ec1772cb3d>

Data.gov Metadata Link*: <http://catalog.data.gov/harvest/object/f4abf136-875a-47f8-971d-4532626516ed/html>

*If the metadata has been updated and reharvested after publication of this report, the link may no longer be valid. The dataset may be searched for manually in Data.gov or GeoPlatform.gov.

NGDA Lifecycle Maturity Assessment (LMA) Report

Time Frame:

Baseline assessment responses based on start time of 2004, when the latest update of the National Bridge Inspection Standards (NBIS) occurred along with the Bridge Location Information

LMA Submission:

Status: Complete

Date: 10/5/2015

Extension Requested: No

LMA Reviewer(s):

Supervisor: Did not review

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Attachments:

To get access to any attachments referenced in the report, email the LMA Help Desk at NGDA_LMA_help@fgdc.gov. Please use the subject "Dataset Report Attachment(s)" and indicate the associated official NGDA title.

*Senior Agency Official for Geospatial Information (SAOGI)

Lifecycle Maturity Assessment (LMA) Summary

Overall Maturity:

Optimized; Established

General Questions: 91%

Optimized; Established

Stage 4 - Access: 100%

Optimized; Established

Stage 1 - Define/Plan: 95%

Optimized; Established

Stage 5 - Maintain: 100%

Optimized; Established

Stage 2 - Inventory/Evaluate: 100%

Optimized; Established

Stage 6 - Use/Evaluate: 89%

Mature; Consistent

Stage 3 - Obtain: 100%

Optimized; Established

Stage 7 - Archive: 100%

Optimized; Established

NGDA Dataset Maturity Definitions:

How To Calculate Maturity: https://www.geoplatform.gov/sites/default/files/How_to_Calculate_Maturity.pdf

Maturity	Maturity Characteristics for All Lifecycle Stages
Optimized; Established Rank = 5	Dataset meets virtually all business needs of all users. The dataset is considered authoritative by owners and secondary users. It is curated across all stages of the approved lifecycle. Future needs are defined on a regular basis and resources for addressing both current and future business requirements are available.
Mature; Consistent Rank = 4	Dataset meets all the business needs of the primary owner and most of the secondary users. The dataset is curated and used as authoritative by the primary owner. Dataset is used widely by secondary users actively engaged in sustaining the dataset. Future needs are identified and steps are planned to address these. All stages are supported and reviewed on a recurring basis. The dataset is well managed in relation to the approved lifecycle.
Managed; Predictable Rank = 3	Dataset meets a significant number of the business needs of the primary owner and is widely used as an authoritative resource by secondary users. Benchmark activities are occurring in at least four of the approved lifecycle stages. Management practices in relation to the approved lifecycle is moderate but consistent. Dataset is integrating changing business requirements in lifecycle stages impacting overall maturity.
Transition; Transformation Rank = 2	Dataset meets business needs of the primary owner and has moderate use by secondary users. Benchmark activities are occurring in at least three stages. Efforts to integrate funding, include partners, and obtain data are not supported in a sustained manner. Management practices in relation to the stages of the approved lifecycle is limited.
Planned; Initial Development Rank = 1	Dataset limited in meeting business needs of the primary owner. Benchmark activities in the approved lifecycle are just starting to consider secondary uses, partnerships are forming to support additional dataset uses. Dataset development is in a very early stage. Minimal or limited management against the benchmarks in the approved lifecycle.
No Activity Rank = no activity	Dataset meets project or local business needs of the primary owner, secondary or additional uses or users were not considered, not recognized as an authoritative data or is part of a similar dataset. Not managed to any of the benchmarks in the approved lifecycle.

General Questions for All Stages

1) Is there a recurring process to obtain funding for all lifecycle stages of this dataset?

Answer: Funding support is part of agency budget on a recurring basis, funding is consistent and tied to business processes, and supports all lifecycle stages.

Justification Comment:

Attachment(s): 0

The National Bridge Inventory is the System of Record for information regarding all Highway Bridges and Structures in the United States. Its existence and management is guaranteed through Legislation in Title 23 of the US Code, 23 CFR 650 Subpart C and specifically identified in Moving Ahead for Progress (MAP-21)

2) Is there a process in place to ensure that open government and transparency guidelines are followed in all lifecycle stages for this dataset?

Answer: Process established, significant portions of the documentation is complete.

Justification Comment:

Attachment(s): 1

The US Department of Transportation's Order 1351.34, or Data Release Policy (DRP), ensures that every lifecycle stage in the development of this dataset follows open government and transparency guidelines. The policies within the DRP are levied by the Federal Funding Accountability and Transparency Act of 2006 and the Memorandum on Transparency and Open Government (January 21, 2009).

Updates to the DRP will be released in 2015. The updates will cover the entire data and information lifecycle and be consistent with OMB Memorandum M-13-13; Open Data Policy. It will also identify touch points to related information management policies such as DOT Order 1351.37, Departmental Cybersecurity Policy; DOT Order 1351.18, Privacy Risk Management; and DOT Order 1351.28, Records Management

The Department has not yet implemented its policy for proper handling of CUI. Our related policies will be updated, as necessary, once the CUI policy has been issued.

Sources:

<http://assets.sunlightfoundation.com.s3.amazonaws.com/policy/papers/DOT%20Order%201351.34.pdf>

<http://www.gpo.gov/fdsys/pkg/PLAW-109publ282/pdf/PLAW-109publ282.pdf>

https://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment

<https://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf>

<http://our.dot.gov/team/dot.it/CIOP/DOT%20Order%201351.37,%20Departmental%20Cybersecurity%20Policy.pdf>

<http://our.dot.gov/team/dot.it/CIOP/CIOP%20-%20Privacy%20Risk%20Management%20-%201351.18%20-%20Policy%20-%2009302014.pdf>

<http://our.dot.gov/team/dot.it/CIOP/Records%20Management.pdf>

3) Are there processes and tools in place so that staff are sufficiently knowledgeable to ensure a continuity of the dataset for all stages of the lifecycle, especially during staffing transitions?

Answer: Processes and tools to ensure dataset continuity are in place and implemented for all lifecycle stages.

Justification Comment:

Attachment(s): 0

The Office of Infrastructure, Office of Bridges and Structures manages the National Bridge Inventory (NBI). The following website provides detailed information regarding the National Bridge Inspection Program (NBIP) and processes for which the NBI dataset is a key component. The Office of Structures and Bridges has internal Standard Operating Procedures and an established workflow to ensure continuity of the NBI and the overall NBIP.

STAGE 1 - Define/Plan

4) Are user and business requirements defined and formalized?

Answer: A recurring process is in place, including defining new partner and stakeholder business needs as they arise, and is fully implemented.

Justification Comment:

Attachment(s): 0

The Office of Bridges and Structures provides oversight for the National Bridge Inspection Standards (NBIS), which defines bridge inspection practices including data collection and reporting.

5) How are partners/stakeholders involved in the requirements collection process?

Answer: A recurring process is in place, including defining new partner and stakeholder business needs as they arise, and is fully implemented.

Justification Comment:

Attachment(s): 0

The user community is engaged in the development and enhancement of the NBI. Major enhancements and modification of existing requirements must go through the standard Federal Regulation process including OMB approval and Federal Register public comment.

6) Is there a quality assurance process for the dataset?

Answer: Quality assurance published as appropriate with respect sensitivity requirements.

Justification Comment:

Attachment(s): 0

Data in the NBI are checked through a validation process. Each Structure in the NBI is physical inspected on a Bi-Annual Basis for Safety. Data elements are verified and/or updated during this inspection. The data is checked via a tool at this website prior to submittal: <http://www.fhwa.dot.gov/bridge/nbi.cfm> Data quality is assured by the Division Bridge Engineers at FHWA Division Field offices as part of the NBIS oversight process, and further vetted annually during the data submission to the NBI, per the internal Standard Operating Procedures.

7) Is there a process to evaluate the sensitivity, privacy, and confidentiality of this dataset?

Answer: Process being implemented.

Justification Comment:

Attachment(s): 0

The National Bridge Inventory does not contain Personally Identifiable Information (PII). It does not contain sensitive or unclassified data. The NBI is open and available to the public through the following website:

<https://www.fhwa.dot.gov/bridge/nbi.cfm>

8) Are defined data standards used in collecting, processing, and/or rendering the data?

Answer: Standards fully implemented documented and published as appropriate.

Justification Comment:

Attachment(s): 0

Standards are fully implemented, documented, and published as appropriate. The following link provides this documentation. See question 6.

<https://www.fhwa.dot.gov/bridge/nbi.cfm>

STAGE 2 - Inventory/Evaluate

9) Is there a process for determining if data necessary to meet requirements already exist from other sources (either within or outside the agency) before collecting or acquiring new data?

Answer: Process for determining appropriate data is being reused fully implemented, reviewed, and

updated on a regular basis.

Justification Comment:

Attachment(s): 1

The U.S. Department of Transportation's Planned Geospatial Data Acquisitions policy (February 2014) establishes procedures to eliminate unnecessary efforts. Specifically, no office may collect or produce geospatial data if a dataset that meets the office's needs already exist.

Below is section four of the policy. It defines the Department's data acquisition procedures.

4. In order to avoid duplication of geospatial data acquisitions, offices and operating units within the Department shall not expend funds to acquire or produce geospatial data if an existing source for that data is available and meets mission requirements. Offices shall coordinate with other organizations, whether within or outside of the Department, if it is determined another organization is planning on acquiring or producing data that will meet the needs of the office as soon as possible, but no later than 30 days prior to the planned acquisition.

4.1. Before expending funds to collect or produce new geospatial data each office will search the officially designated National Spatial Data Clearinghouse and any other appropriate sources to determine if existing data meets agency needs. The office shall also search any Federal Geographic Data Committee (FGDC)-approved clearinghouse(s) containing references to planned geospatial data acquisitions as soon as the need for the data arises.

4.2. The office shall document the date, clearinghouse(s) searched, search criteria and results of that search.

4.3. If the office discovers/identifies geospatial data from another organization that is appropriate for the office use, the office shall obtain and use that existing geospatial data.

4.4. If the office discovers/identifies through the search required by Section 4.01 above that another organization has plans to acquire or produce geospatial data that is appropriate for use by the office, the office shall contact that organization and develop a plan to coordinate or partner with the other office as appropriate. They can share in the cost by including an Interagency Agreement to transfer the funding to the sponsoring agency.

4.5. If the office does not discover/identify existing or planned acquisitions of appropriate geospatial data, the office shall create a metadata record following FGDC requirements for metadata that describes the planned acquisition. The office shall publish the metadata to the appropriate National Spatial Data designated Clearinghouse(s).

4.6. If the office is contacted by an organization that is interested in the planned acquisition for geospatial data, the office shall coordinate with the organization to avoid duplication of the geospatial data acquisitions.

4.7. Upon request, the offices shall report to the Department Senior Agency Official for Geospatial Information (SAOGI) and Geospatial Coordination Council on activities related to this policy.

STAGE 3 - Obtain

10) Is there a process for obtaining data in relation to this dataset?

Answer: Process is fully implemented, reviewed and updated on a regular basis.

Justification Comment:

Attachment(s): 0

State DOTs provide NBI data annually. It is delivered to FHWA through an upload process. The NBI is reviewed and published on a public website:

<http://www.fhwa.dot.gov/bridge/nbi/ascii.cfm>

11) Is the metadata in a FGDC endorsed geospatial metadata standard?

Answer: Metadata is available in a format endorsed by the FGDC, it fully describes the dataset and provides all the information required to make the dataset discoverable, accessible, and

usable.

Justification Comment:

Attachment(s): 2

The U.S. Department of Transportation's Creation and Publication of Metadata for Geospatial Data policy (February 2014) establishes that all Departmental offices and operating units of the Department that collect, procure, or produce geospatial data shall create metadata for geospatial data using standards approved by the Federal Geographic Data Committee (FGDC).

Below is section eight of the policy. It defines the Department's metadata procedures.

8.REQUIREMENTS.

In accordance with the OMB Circular A-16, the agencies shall:

8.1.Document all geospatial data that is collected, produced, acquired, maintained, distributed, or preserved by the Department using a metadata standard endorsed by the FGDC.

8.2.Ensure metadata meets or exceeds the minimum requirements of the designated standard for both content and format.

8.3.Include additional information whenever appropriate to provide the maximum information available through the standard

8.4.Submit all geospatial metadata for publication to the FGDC designated Clearinghouse.

8.5.Ensure metadata meets requirements of the Privacy Act of 1974.

8.6.Ensure information in the metadata does not release proprietary, protected, or classified information.

12) How complete is the geographic coverage as defined in the requirements for the dataset?

Part 1 Answer: Business requirements for cyclic updates identified and a process is in place.

Part 2 Answer: Dataset has presently attained the greatest geographic coverage as defined by the current requirements or roughly 100%.

Justification Comment:

Attachment(s): 0

There are approximately 611,000 Bridges and structures in the United States, and the NBI is required to inventory complete coverage. Currently, location information for bridges are requested from state DOTs. There is no formal requirement although all States provide data for this request. Starting with the 2018 collection of the NBI, Location information will be a formal requirement.

STAGE 4 - Access

13) Do you have a process for providing users access to the data in an open digital machine readable format?

Answer: User access process is fully implemented, data is available, process is reviewed and updated on a recurring basis.

Justification Comment:

Attachment(s): 0

The U.S. Department of Transportation's Bureau of Transportation of Statistics (BTS), under the Office of the Assistant Secretary for Research and Technology (OST-R), is federally mandated to produce and distribute the National Transportation Atlas Database (NTAD). This dataset is included on the NTAD and is available for download via BTS' National Transportation Atlas Database web page. NTAD DVDs are also available from BTS' Bookstore. Data on NTAD DVDs are provided in the shapefile format; a De facto industry standard which is machine readable.

Sources:

http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_atlas_database/index.html

<https://2bts.rita.dot.gov/pdc/index.xml>

STAGE 5 - Maintain

14) Is there a maintenance process for updating and storing the dataset?

Answer: Dataset maintenance process is fully implemented and processes are reviewed and periodically updated.

Justification Comment:

Attachment(s): 0

Data in the NBI are checked through a validation process. Each Structure in the NBI is physical inspected on a Bi-Annual Basis for Safety. Data elements are verified during this inspection. The Validation tool is located:

<http://www.fhwa.dot.gov/bridge/nbi.cfm>

15) Is there an error correction process as part of dataset maintenance?

Answer: Error correction process includes user notification, process reviewed on a recurring basis.

Justification Comment:

Attachment(s): 0

The NBI is reported annually based on information collected in the field. The Office of Bridges and Structures provides feedback via the documented Standard Operating Procedures, and the Division Bridge Engineers provide support for data correction through oversight of the National Bridge Inspection Program.

STAGE 6 - Use/Evaluate

16) Is there a process to determine if the dataset meets user needs?

Answer: Process is complete and being implemented on ad hoc basis.

Justification Comment:

Attachment(s): 0

The NBI is a mature dataset that is required by legislation is US Code and CFR to meet National Infrastructure goals. Periodically, the NBI goes through a reassessment to determine if requirement are being met.

17) Is there a process to provide users information on how to access and properly use the dataset?

Answer: Process is fully implemented supporting access and proper use, process is reviewed on a recurring basis.

Justification Comment:

Attachment(s): 0

The U.S. Department of Transportation's Bureau of Transportation of Statistics (BTS), under the Office of the Assistant Secretary for Research and Technology (OST-R), provides users with a description of this dataset and its intended purpose. Furthermore, BTS explains the dataset is provided in a shapefile format and that shapefiles are comprised of eight different sub files.

For further technical assistance using this dataset users are directed to contact the Bureau of Transportation Statistics at 800- 853-1351 and refer to the NTAD2015. Users may also contact us via e-mail at answers@dot.gov or visit the BTS website.

http://www.bts.gov/programs/geographic_information_services/

U.S. Department of Transportation
Bureau of Transportation Statistics
1200 New Jersey Avenue, SE
Washington, DC 20590
800-853-1351

The NBI dataset and instructions for its use are available at

<http://www.fhwa.dot.gov/bridge/nbi/ascii.cfm>.

18) Are the business processes and management practices assessed to meet changing technology?

Answer: Assessment process is fully implemented for taking advantage of changing technology, process is reviewed on a recurring basis.

Justification Comment:

Attachment(s): 0

The U.S. Department of Transportation's Bureau of Transportation of Statistics (BTS), under the Office of the Assistant Secretary for Research and Technology (OST-R), has a mature and optimized process by which it collects, processes and publishes geospatial datasets. User and technical needs are assessed at the beginning of each production cycle and all practicable opportunities to optimize production or ease user consumption are taken.

STAGE 7 - Archive

19) Is there an archiving process for the dataset?

Answer: Archival and disposition processes are fully implemented.

Justification Comment:

Attachment(s): 0

This dataset is archived in the National Transportation Library annually.