

Purpose

The *Washington State Bridge Inspection Manual* (WSBIM) has been developed to provide specific guidance, offer needed technical details, and serve as an information source to both state and local agency staff related to and involved with bridge inspections within the state of Washington. The intent of this manual is to serve as an operations manual for the collection, processing and reporting of bridge inspection information.

The WSBIM consists of nine chapters. Chapters 1 – 3 explain the responsibilities within the bridge inspection organization, provide guidance to the structure of the Washington State Bridge Inventory System (WSBIS), and it further explains the types of inspections and the reports required to meet the federal mandate outlined in the Code of Federal Regulations. Chapter 4 describes the Washington State Bridge Management System (BMS) and defines the element level inspection used by both state and local agency bridge inspectors. Chapters 5 – 7 provide more detailed information to the inspector in regard to load ratings, scour, damage/repair reporting, and quality control/quality assurance. Chapter 8, currently written as a stand-alone chapter, covers the aspects of mechanical and electrical inspections of moveable structures. Chapter 9 is a new addition to the manual in 2017 and integrates the operation of tunnel inspections into the overall inspection program.

References

Bridge inspection staff may also refer to the most current editions of the following:

- *Bridge Inspector's Reference Manual* (BIRM), Publication No. FHWA NHI 12-049
- *The Manual for Bridge Evaluation* (MBE), 2nd Edition, AASHTO
- *The Manual for Bridge Element Inspection*, 1st Edition, AASHTO
- *Evaluating Scour at Bridges*, Hydraulic Engineering Circular (HEC) No. 18, 5th Edition, FHWA
- *Stream Stability at Highway Structures*, Hydraulic Engineering Circular (HEC) No. 20, 4th Edition, FHWA
- *Bridge scour and stream instability countermeasures*, Hydraulic Engineering Circular No. 23, 3rd Edition, FHWA
- Title 23 CFR 650 Subchapter C – National Bridge Inspection Standards
- Title 23 CFR 650 Subchapter E – National Tunnel Inspection Standards
- Title 23 CFR 500 Subchapter F – Transportation Infrastructure Officials
- *Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges*, Report No. FHWA-PD-96-001, December 1995, FHWA available at www.fhwa.dot.gov/bridge/mtguide.pdf.

- *Transportation Engineering Technology Highway Design – Program Detail Manual*, 5th Edition, NICET (Requirements for NICET certification) available at www.nicet.org/default/assets/File/hwydes.pdf.
- *Bridge Design Manual (BDM) M 23-50*, WSDOT
- *Transportation Structures Preservation Manual M 23-11*, WSDOT
- *Local Agency Guidelines (LAG) M 36-63*, WSDOT
- *Bridge List M 23-09*, WSDOT
- *Moveable Bridge Inspection, Evaluation, and Maintenance Manual*, 1st Edition, AASHTO
- *Dive Safety Manual*, WSDOT (currently an internal BPO Manual)

Revisions

The WSBIM is a dynamic document that is updated periodically to incorporate revisions based on new requirements from the Federal Highway Administration (FHWA), as well as newly adopted practices by either state or local agencies within the state. We encourage the user to submit to the Bridge Inspection Committee any proposed revisions or new material, by using the Comment Request Form provided.

In the event of conflicting information or requirements between the WSBIM and NBIS, the NBIS will govern. Agencies are not relieved of the responsibility of complying with the NBIS even when a conflict exists. If a conflict is discovered, notify the WSDOT Bridge Preservation Supervisor or the Local Agency Bridge Engineer.