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(Expires 10/11/2017)

Subject:	Bridge Inventory and Inspection Program
Purpose:	To ensure bridges on Bureau of Reclamation projects are comprehensively inventoried for ownership and inspection responsibilities, and to ensure that inspections are conducted properly and uniformly on Reclamation-owned bridges. The benefits of this Directive and Standard (D&S) include inventory and inspection activities, protecting the Federal investment, asset management, and public interests.
Authority:	Reclamation Project Act of 1902 (Act of June 17, 1902, 32 Stat. 388) and amendatory and supplementary acts; 23 Code of Federal Regulations (CFR) Part 650 Subpart C, National Bridge Inspection Standards (NBIS), 1971; NBIS revised in December 2004
Approving Official:	Director, Policy and Administration (POLICY)
Contact:	Asset Management Division (84-57000)

- 1. Introduction.** Reclamation has established basic requirements for the Bridge Inventory and Inspection Program for the inventory and inspection activities for all Reclamation-owned bridges located on public roads in accordance with the NBIS, and all Reclamation-owned bridges located on non-public roads. In addition, this D&S provides requirements for the inventory of privately-owned bridges on Reclamation projects.
- 2. Applicability.** This D&S applies to all Reclamation staff and offices having jurisdiction and oversight responsibility for inventory and inspection of Reclamation-owned bridges and inventory of private-owned bridges on Reclamation projects.
- 3. Definitions.**
 - A. Bridge.** In accordance with current edition of the American Association of State Highway and Transportation Officials (AASHTO) Transportation Glossary, a “bridge” is defined as a structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between under copings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

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- B. **Bridge Inspection Reference Manual (BIRM).** Department of Transportation, Federal Highway Administration (FHWA), National Highway Institute, Publication No. FHWA NHI 16-013, November 2015.
- C. **Critical Finding.** A situation discovered during a routine National Bridge Inventory (NBI), fracture critical, or underwater inspection of a bridge that if not promptly corrected, could cause failure or partial failure of a bridge, or could pose a serious traffic safety hazard. Reporting critical findings is a process developed to assure that the existence of critical deficiencies is promptly communicated to decision makers within the agency who can initiate action to correct the problem and to preserve public safety.
- D. **Crossing.** Any facility or structure that generally meets the above definition of a “bridge” except for it being less than the required 20 feet in overall span.
- E. **InspectTech.** Bridge inspection database and reporting software owned by Bentley Systems Inc. All Reclamation Type 1 public bridge inventory data is maintained in this database which is also used for the annual NBI submission to FHWA as detailed in this D&S.
- F. **Load Rating.** The determination of the live load carrying capacity of a bridge using bridge drawings and supplemented by information gathered from a field inspection. In cases where design drawings are not available, a more detailed inspection to develop drawings may be necessary in order to perform load ratings.
- G. **Manual for Bridge Evaluation (MBE).** AASHTO Second Edition, with 2011, 2013, 2014, 2015, 2016 interim revisions.
- H. **National Bridge Inspection Standards or NBIS.** The national standards (23 CFR Part 650 Subpart C) established by FHWA for the proper safety inspection and evaluation of all highway bridges in accordance with 23 USC 151.
- I. **National Bridge Inventory or NBI.** A database managed by the FHWA with information on all bridges on public roads within the United States.
- J. **Non-public Road.** A Reclamation-owned road where public travel is restricted by physical barriers including restrictive gates, or restrictive signs prohibiting public travel by four-wheel standard passenger cars on the road.
- K. **Public.** Any individual that is not a Reclamation employee, transferred works operating entity, contractor authorized to perform work on Reclamation facilities, or otherwise authorized access to utilize Reclamation facilities through a use authorization or contractual obligation.

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- L. **Public Authority.** A Federal, State, county, or township, Indian tribe, municipality or other local government or instrumentality thereof (including all water user organizations), with authority to finance, build, operate, or maintain toll or toll-free highway facilities.
 - M. **Public Road.** Any road or street under the jurisdiction of, and maintained by, a public authority and open to public travel per 23 USC 101(a)(21). A public road is available, passable by four-wheel standard passenger cars, and open to general public travel without the use of restrictive signs or physical barriers prohibiting public travel, or regulations other than restrictions based on size, weight, or class of registration.
 - N. **Quality Assurance (QA).** QA includes the use of sampling or other measures to assure the adequacy of quality control procedures in order to verify or measure the quality level of the entire bridge inventory, inspection, and load rating program.
 - O. **Quality Control (QC).** QC includes procedures that are intended to maintain the quality of performing bridge inventory, inspection, and load rating under their jurisdiction.
 - P. **Reclamation Facility.** Any facility or structure that is owned by Reclamation or included as part of an authorized Reclamation project.
 - Q. **Structure Inventory and Appraisal (SIA).** NBI required data collected on all Type 1 bridges.
 - R. **Type 1 Bridge.** Any Reclamation-owned bridge that services or is located on a public road, Reclamation-owned road, or on a privately maintained road open to public travel.
 - S. **Type 2 Bridge.** Any Reclamation-owned bridge that services or is located on a non-public road. Bridges included in the Type 2 inventory must have restrictive signs or barriers in place on the road preceding the bridge.
 - T. **Type 3 Bridge.** Any bridge that crosses a Reclamation dam, associated facility, or power facility which is owned by an entity other than Reclamation, including, other governmental agencies, water-user organizations, private individuals, etc.
4. **Responsibilities.**
- A. **Commissioner.** The Commissioner is responsible for Reclamation's overall Bridge Inventory and Inspection Program.

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- B. **Deputy Commissioner, Operations.** The Deputy Commissioner, Operations, is responsible for coordinating with all regional directors to ensure Bridge Inventory and Inspection Program criteria are followed and required activities are implemented consistently.
- C. **Deputy Commissioner, Policy, Administration and Budget.** The Deputy Commissioner, Policy, Administration, and Budget is responsible for overseeing policy compliance.
- D. **Director, POLICY.** The Director, POLICY is responsible for:
- (1) developing and disseminating related Reclamation Manual (RM) Policy and D&S, criteria, guidance, and corporate information; and
 - (2) performing programmatic reviews to verify the consistent implementation of required program activities.
- E. **Program Manager.** The member of the Asset Management Division of POLICY who is responsible for coordination and promulgation of Reclamation wide policies and program management related to bridge inventory and inspection activities and implementing QA as specified in Paragraph 7 of this D&S.
- F. **Regional Directors.** Each regional director is responsible for:
- (1) decision-making related to bridge inventory and inspection activities within their region; and
 - (2) implementing this D&S for all bridges at Reclamation dams, associated facilities, and power facilities.
- G. **Regional Bridge Program Manager (RBPM).** The representative for each region that is responsible for maintaining the region's bridge inventory and inspection activity data and implementing QC as specified in Paragraph 7 of this D&S.
- H. **Area Managers.** Area managers are responsible for ensuring that all Reclamation bridges at facilities, associated facilities, and power facilities are identified and inventoried; ownership is determined; inspections are performed as required; formal recommendations to address deficiencies are tracked and managed until completion.
- I. **Reclamation Employees.** All Reclamation employees are responsible for communicating bridge issues that have been identified or called to their attention through official channels of the employee's particular organization to the RBPM and the area manager and regional director with jurisdiction over the bridge.

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5. Reclamation Bridge Inventory.

- A. **Bridge Inventory Requirements.** A comprehensive inventory will be made and maintained by the RBPM that includes all Type 1 and Type 2 bridges. In addition to the information listed below, the Type 1 bridge inventory will include all SIA data in accordance with the NBI. The inventory for Type 1 and Type 2 will include, at a minimum, the following information:
- (1) **Name of Feature Crossed.** This includes but is not limited to dam name, canal or drainage name, or river name.
 - (2) **Location.** Either station or mile post where the bridge crosses the feature, as applicable.
 - (3) **Road Name/Number.** Name/number of road on which the bridge is located.
 - (4) **Latitude/Longitude.** Global Positioning System (GPS) WGS 1984 latitude and longitude of bridge location.
 - (5) **State.** The State that the bridge is located in.
 - (6) **Owner.** The name of the bridge owner.
 - (7) **Length of Bridge.** The measurement of the bridge length as defined by the definition of the term "bridge."
 - (8) **Public/Non-Public.** Specify if the bridge is open to public travel or if public travel is restricted.
 - (9) **Inspection Entity and Frequency.** Name of the inspection entity or office and inspection frequency in months.
 - (10) **Maintenance Entity.** Name of the operating entity or managing partner.
 - (11) **Bridge Type.** Type of bridge based on the definitions in this D&S.
 - (12) **Type of Reclamation Land Interest.** Specify if land is fee title, withdrawn, easement, or right-of-way.
- B. **Maintenance and Updates of Bridge Inventory.** A bridge inventory will be maintained by the RBPM and regional/area office staff. The inventory must be reviewed, updated, and revised annually based on results of inspections or facility reviews/examinations conducted of associated facilities, operational or ownership status changes, or policy changes.

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- (1) **Type 1 Bridge Inventory.** All data associated with Reclamation's Type 1 bridges will be stored in the InspectTech database. The inventory will be updated following inspections as indicated in this D&S and annually verified by the RBPM prior to submission to the National Bridge Inventory.
 - (a) **Type 1 Bridge Inventory of Temporarily Closed Bridges.** If the intent is to close the bridge until funds are available to repair the structure, then the bridge will continue to be reported in the NBI as "closed" until repairs are complete and the bridge is reopened.
 - (b) **Type 1 Bridge Inventory of Permanently Closed Bridges.** If the intent is to permanently close the bridge, then the bridge is to be reported in the NBI for 1 year as "closed" prior to being removed from the NBI submittal.
 - (2) **Type 2 Bridge Inventory.** All data associated with Reclamation's Type 2 bridges will be stored in a database as determined by the RBPM. The RBPM will be responsible for annually updating the Type 2 bridge inventory.
 - (3) **Type 3 Bridge Inventory.** All data associated with Type 3 bridges will be stored in a database as determined by the RBPM.
 - (4) **Crossings.** An inventory of all public and non-public crossings will be stored in a database as determined by the RBPM.
- C. **Determination of Bridge Type.** The regional director, or as assigned to the responsible area manager, will determine the bridge Type (Type 1, 2, 3), based on site-specific conditions and factors, such as geographic location, traffic volume and ownership and public/non-public use. As applicable, where it is determined that it is reasonable and prudent to restrict access and use of the bridge by the general public, appropriate restrictive physical devices or barriers, or prohibitive signs are to be installed. The determination or change of bridge Type will be documented by a formal memorandum from the area or field office manager to the RBPM. A copy of the memorandum will be retained in the bridge file, and a courtesy copy will be sent to the program manager in POLICY, 84-57000.
- D. **Determination of Bridge Ownership.** The determination of bridge ownership is important for classifying and compiling an inventory of bridges located on and crossing over Reclamation facilities. If bridge ownership changes and results in a change in the bridge Type, then the change in bridge Type will be documented in a memorandum as indicated in Paragraph 5.C.
- (1) **Public/Private Ownership.** If the owner of the bridge is determined to be a public entity other than Reclamation or a private entity, then the appropriate

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Reclamation regional or area office will send a letter to the owner by certified mail return receipt requested. The letter will provide a copy of the contract, agreement, or other documentation indicating the bridge's ownership, and copies of all previous bridge inspection reports and applicable documents, and advise the owner of the inspection and reporting responsibilities that are applicable under the NBIS. Once this letter and supporting information is provided to the owner, Reclamation will no longer be responsible for conducting future bridge inspections.

- (2) **Reclamation Ownership.** If Reclamation is the owner of the bridge, the bridge will be permanently placed on the appropriate regional bridge inventory and continue to be inspected in accordance with this D&S.
- (3) **Unconfirmed Ownership.** When ownership of a particular bridge is unknown, Reclamation will temporarily classify it as a Type 1 or Type 2 bridge, based on public access; perform all necessary inspections; and perform any operation and maintenance activities needed to maintain the bridge in a safe and passable condition. The responsible Reclamation regional/area office will also be required to determine who owns the bridge. If ownership cannot be determined, Reclamation will utilize all legal methods available to either:
 - (a) acquire ownership of the bridge;
 - (b) sell the bridge to an interested private landowner or operating entity; or
 - (c) physically remove the bridge in accordance with RM D&S, *Disposal of Bridges and Crossings on Bureau of Reclamation Land and Easements* (LND 11-01).

6. **NBI.**

- A. **Content.** Reclamation will inventory Type 1 bridges in accordance with Paragraph 5.A. in this D&S.
- B. **Annual Submission of Inventory to the NBI.** As required under the NBIS, Reclamation is responsible for inspection and reporting of Type 1 bridges annually to the FHWA for inclusion into the NBI. The RBPM will develop and verify the accuracy of the NBI data string through the InspectTech database and annually submit NBI data to the Technical Service Center (TSC), Attention: 86-68150. TSC will submit Reclamation's NBI inventory to FHWA for incorporation into the NBI prior to the April 1 deadline. Updated inventory information will be forwarded by the FHWA to the respective State in which the bridges are located.

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7. **QA/QC.** The QA and QC organizational requirements apply specifically to activities related to Type 1 bridges in the NBI. QA and QC procedures are used to maintain a high degree of accuracy and consistency in the inspection program of Type 1 bridges in accordance with 23 CFR 650.313(g).

A. Organizational QA/QC Responsibilities.

- (1) **Program Manager.** The Asset Management Division of POLICY is responsible for coordination and promulgation of Reclamation wide policies and program management related to bridge inventory and inspection activities, including this D&S. The program manager will meet the qualifications outlined in Paragraph 7.B. below. The program manager will provide coordination with the FHWA regarding NBI program administration activities and request annual FHWA Public Lands Highway Program funding and distribute amongst the regions. The program manager responsibilities include but are not limited to the following:
- (a) Provide oversight of Reclamation compliance with this D&S.
 - (b) Coordinate regular bridge inspector meetings and include specialized training as needed.
 - (c) Perform annual programmatic reviews on 10 percent of Type 1 bridge inspection reports performed each fiscal year.
 - (d) Develop procedures for sampling parameters for selecting bridges to perform programmatic reviews. Procedures must include but are not limited to:
 - (i) whether the bridge is posted or not;
 - (ii) bridge's sufficiency rating based on NBIS guidance;
 - (iii) whether the bridge has a recommendation in Dam Safety Information System (DSIS) for replacement or rehabilitation;
 - (iv) whether the bridge has an unusual change in the condition rating from the previous inspection; and
 - (v) whether the bridge requires special inspections (underwater, fracture critical, etc.).
 - (e) Validate the qualifications of the bridge inspectors and load raters in each region.

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- (f) Develop procedures for reviewing inspection reports, bridge files, and load ratings.
 - (g) Develop a checklist for QA/QC review of bridge files, load rating analysis, and field inspections.
- (2) **RBPM.** The RBPM will manage inventory and inspection activities of all bridges for their region and meet the qualifications outlined in Paragraph 7.B. below. The RBPM responsibilities include but are not limited to the following:
- (a) Implement Reclamation wide bridge inspection policies and procedures, quality control, and prepare and maintain a bridge inventory.
 - (b) Perform Type 1 bridge inspections, reports, and load ratings in compliance with the requirements set forth within the NBIS.
 - (c) Establish and implement necessary processes and procedures to assure QC of the Type 1 bridge inspection program in accordance with the NBI.
 - (d) Document changes to the bridge Type in the inventory.
 - (e) Maintain Type 1 bridge files which will be available for FHWA to search during NBI compliance reviews. Type 1 bridge files will include as necessary the following items:
 - (i) design and as-build drawings;
 - (ii) routine inspections;
 - (iii) fracture critical inspection plans and fracture critical inspection reports;
 - (iv) underwater inspection reports; and
 - (v) load ratings.
 - (f) Maintain records of the qualifications of all of the following staff that perform inspections or load ratings on bridges in their region, including, inspection team leaders, inspection team members, load raters, underwater bridge inspection divers, and contractors.
 - (g) Maintain records confirming staff performing the inspections and load ratings have completed National Highway Institute refresher training.

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- (h) Perform annual programmatic reviews and verification on 10 percent of Type 1 bridge inspection reports performed that year.

B. Qualifications of Personnel.

- (1) **Program Manager and RBPM.** The program manager and RBPM must meet the following qualifications:
 - (a) be a Registered Professional Engineer or have 10 years bridge inspection experience, and
 - (b) have successfully completed a FHWA approved comprehensive bridge inspection course and maintain compliance by completing a FHWA bridge inspection refresher course every 5 years thereafter.
- (2) **Inspection Team Leader.** The inspection team leader will successfully complete a FHWA-approved comprehensive bridge inspection training course and an inspection refresher course every 5 years thereafter, and meet or possess one of the following sets of minimum qualifications:
 - (a) have the qualifications specified under Paragraph 7.B.(1); or
 - (b) have 5 years bridge inspection experience and successfully complete a FHWA-approved comprehensive bridge inspection training course; or
 - (c) be certified as a Level III or IV bridge safety inspector under the National Society of Professional Engineers' Program for National Certification in Engineering Technologies and have successfully completed an FHWA-approved comprehensive bridge inspection course; or
 - (d) have all of the following:
 - (i) a bachelor's degree in engineering from a college or university accredited by or determined as substantially equivalent by the Accreditation Board for Engineering and Technology;
 - (ii) successfully passed the National Council of Examiners for Engineering and Surveying Fundamentals of Engineering examination;
 - (iii) 2 years of bridge inspection experience; and
 - (iv) successfully completed an FHWA-approved comprehensive bridge inspection training course; or

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- (e) have all of the following:
 - (i) an associate's degree in engineering or engineering technology from a college or university accredited by or determined as substantially equivalent by the Accreditation Board for Engineering and Technology;
 - (ii) 4 years of bridge inspection experience; and
 - (iii) successfully completed an FHWA-approved comprehensive bridge inspection training course.
- (3) **Inspection Team Member.** Reclamation staff that participates in inspections will successfully complete an FHWA-approved comprehensive bridge inspection training course and an inspection refresher course every 5 years thereafter.
- (4) **Load Rater.** The individual charged with the overall responsibility for review or calculation of load ratings must be a Registered Professional Engineer.
- (5) **Lead Underwater Bridge Inspection Diver.** The lead underwater bridge inspection diver must complete an FHWA-approved comprehensive bridge inspection training course or other FHWA-approved underwater bridge inspection training course.
- (6) **Contractor Qualifications.** Consultants, architectural and engineering (A&E) firms, or other governmental agencies may be contracted to provide the inspection requirements described herein. Consultants conducting these inspections will be required to meet the qualifications and experience required as specified in this D&S for the roles and activities they will be performing. If an A&E service contract is utilized, Reclamation will have a Contracting Officer's Representative (COR), who possesses team leader qualifications, as specified in this D&S.

8. Bridge Inspection Activity Requirements.

- A. **Job Hazard Analysis (JHA).** To help ensure the safety of personnel conducting the onsite inspections, the responsible area/field office will prepare a JHA for each bridge to be inspected. The JHA will address all potential safety hazards for activities anticipated and provide acceptable methods, procedures, and equipment to safely accomplish the activities. The JHA will be provided to each inspection team participant prior to the inspection to allow review of the JHA and to obtain necessary safety equipment. The JHA will be reviewed by the onsite inspection team members at the bridge site during the entrance briefing for the inspection and signed by all inspection participants. Signing the JHA will indicate acknowledgment of the provisions and intention to comply with the JHA during the inspection. Any non-Reclamation participants declining to sign the JHA will be so

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noted on the JHA. Should unforeseen circumstances arise during the inspection that are not specifically covered in the JHA or where an interpretation is required, the responsible area/field office representative participating in the inspection, in consultation with the operating entity, as applicable, will make the final decision on whether and how to proceed. Ultimately, each individual of the inspection party is responsible for his/her own safety.

- B. Traffic Control.** If the inspection team lead determines it is necessary to assure safe conditions for the bridge inspection team, a traffic control plan will be prepared. The responsible area/field office will develop and implement a traffic control plan based on the number of vehicles and speed, in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- C. Type 1 Bridge Inspections/Activities.** Bridge inspection procedures must meet all of the requirements set forth in 23 CFR Part 650, Subpart C, NBIS. In general, some of the primary requirements are:
- (1) **Load Ratings.** Each bridge will be load rated as a basis for determining the safe load-carrying capacity in accordance with the current edition of the AASHTO MBE. If a load rating results in the closure or posting of the bridge, then the load rater will notify the RBPM immediately. If it is determined under the rating procedure that the maximum unrestricted legal loads or State permit loads exceed the load permitted under the operating rating or equivalent rating factor, the bridge must be posted in accordance with the current edition of the AASHTO MUTCD. Posting will be performed by Reclamation within 30 calendar days of load rating, in accordance with AASHTO MUTCD, State law, and the TSC *Bridge Load Rating and Load Limit Posting Handbook*.
 - (2) **Frequency of Inspections.** Each routine bridge is to be inspected at regular intervals not to exceed 24 months, with certain exceptions. Certain bridges may require inspections more frequently than on a 24-month interval, depending on factors such as age, traffic characteristics, rating, and known deficiencies. With written approval of the FHWA Headquarters Office of Bridge Technologies, bridges will be allowed to be inspected on less frequent intervals, not to exceed 48 months. An underwater inspection is to be performed at interval not to exceed 60 months. A fracture critical member inspection is to be performed at an interval not to exceed 24 months. Refer to the NBIS for additional requirements related to damage, in-depth, and special inspections.
 - (3) **Personnel Involvement.** The team leader/members of the inspection team for Type 1 bridges will be from the regional office. However, this responsibility can be assigned to an area office upon mutual agreement between the regional director and the area manager, provided that the area office staff meets the qualification requirements in this D&S and is one office removed from the

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operating office/entity. The regional office can also request TSC, or contract with other Federal agencies or A&E private consultants to provide the team leader/members for these inspections.

D. Type 2 Bridge Inspections/Activities. The inspection of Type 2 bridges will follow the requirements established by the applicable D&S governing the Reclamation facility with which the bridge is associated. No separate or formal inspections similar to that performed on Type 1 bridges will be performed on Type 2 bridges, unless specifically requested by Reclamation or an operating entity.

(1) Associated Facility.

- (a) The review of Type 2 bridges will be included as part of a Review of Operation and Maintenance (RO&M) examination if the bridges are part of, or related to, an “associated facility” as defined in RM D&S, *Review of Operation and Maintenance (RO&M) Program Examination of Associated Facilities (Facilities Other Than High- and Significant-Hazard Dams)* (FAC 01-04).
- (b) The RO&M review team must attempt to review or inspect all included Type 2 bridges during the RO&M examination; however, for those associated facilities that include more Type 2 bridges than can reasonably be reviewed/inspected during the regularly scheduled RO&M examination, the responsible regional/area office (as applicable) will coordinate with the operating entity to compile a comprehensive “condition assessment” listing of all included bridges. This listing will indicate the general condition of each bridge using the descriptors of “Good” - no O&M deficiencies; “Fair” - having few O&M deficiencies that do not impact the structural integrity of the bridge; and “Poor” - having O&M deficiencies that impact the structural integrity of the bridge. This listing is to be updated and made available by the responsible regional/area office or the operating entity to the RO&M examination team, for their review, prior to each scheduled examination. These descriptive assessments and/or pertinent observations relating to these bridges will be included in the corresponding RO&M Examination Report for that particular associated facility. A more thorough inspection will be required of any of the bridges designated as being in “Poor” condition. RO&M reports will include a list of all Type 2 bridges inspected. Separate bridge inspection reports will be referenced or attached to the appendix of the report.
- (c) Where a more thorough bridge inspection is required, it will be at the discretion of the responsible area/regional office, to determine whether the inspection will be conducted as part of the RO&M examination under

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FAC 01-04 or if the inspection requires a qualified bridge inspector. If conducted by a qualified bridge inspector, the results of this follow-up special bridge inspection will be documented in a report format similar to that used for Type 1 bridges.

(2) High- and Significant-Hazard Dam.

- (a) The review of Type 2 bridges will be included as part of both the Periodic Facility Review (PFR) and Comprehensive Review (CR), if the bridges in question are part of, or related to, a high- or significant-hazard dam as defined in Reclamation's Safety Evaluation of Existing Dams Program. Since these bridges are typically an integral part of the dam's spillway structure, a review of its condition during both the PFR and CR must be included. The CR and PFR will include a list of all Type 2 bridges inspected. Separate bridge inspection reports will be referenced or attached to the appendix of the report.
- (b) All observations, results, and recommendations relating to these bridges will be included in both the corresponding PFR and CR reports for that particular dam.
- (c) Where a more thorough bridge inspection is required, it will be at the discretion of the responsible area/regional office, as applicable, to determine whether the inspection will be conducted as an "associated facility" during the PFR or CR under FAC 01-04, or if the inspection requires a qualified bridge inspector. If conducted by a qualified bridge inspector, the results of this follow-up special bridge inspection will be documented in a report format similar to that used for Type 1 bridges.

(3) Power Facility.

- (a) In certain situations, the review of Type 2 bridges will be included as associated facilities in conjunction with the conducting of a Power Review of Operations and Maintenance (PRO&M) examination, if the bridges in question are part of, or related to, an appropriate power facility, as outlined in RM D&S, *Power Review of Operation and Maintenance (PRO&M) Program* (FAC 04-01). The PRO&M report will include a list of all Type 2 bridges inspected. Separate bridge inspection reports will be referenced or attached to the appendix of the report.
- (b) If applicable, all observations, results, and recommendations relating to these bridges will be included as associated facilities in the facility's PRO&M report.

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- (c) Where a more thorough bridge inspection is required, it will be at the discretion of the responsible area/regional office, as applicable, to determine whether the inspection will be conducted as an “associated facility” during the PRO&M review under FAC 04-01, or if the inspection requires a qualified bridge inspector. If conducted by a qualified bridge inspector, the results of this follow-up special bridge inspection will be documented in a report format similar to that used for Type 1 bridges.
 - E. **Type 3 Bridges.** The inspection requirements for these bridges will be implemented by the owner or responsible entity. If the condition of a Type 3 bridge is known to threaten the operation of a Reclamation facility or if the bridge presents an immediate danger to the public or operating personnel, notification is to be promptly given to the responsible owner or entity for their attention and correction.
 - F. **Crossings.** Reclamation-owned crossings, whether open to public travel or not, are not required to be inspected and reported similar to Type 1 or Type 2 bridges, unless their design and existence, as determined by the responsible regional/area office, presents a significant hazard to the public or operating personnel. Crossings generally will be inspected and reported as a feature of the facility that it is crossing. Crossing information is not required to be submitted for inclusion in the NBI.
9. **O&M Recommendations Resulting from Inspection Activities.**
- A. **Categorizing Recommendations.** Recommendations will be developed by Reclamation staff based on deficiencies identified during the inspection of Type 1 or Type 2 bridges. They will be categorized according to the three recommendation categories established under FAC 01-04.
 - B. **Recommendation Tracking.** Regardless of whether the bridge was inspected as part of an associated facilities review, facility review, or power review, all Category 1 and 2 recommendations resulting from the inspection of Type 1 or Type 2 bridges will be entered and maintained within the DSIS, for tracking purposes.
 - C. **Bridge Closures.** If inspection or load rating calculations indicate that the bridge is not safe for vehicular travel, then a Category 1 recommendation will be issued in a Notification of Closure letter to close the bridge within 10 calendar days of the date of the letter as detailed in Paragraph 9.D. Following closure of the bridge, Reclamation will document with photos that the closure was completed. If the operating entity does not close the bridge within 10 calendar days of receiving notice to close the bridge, then Reclamation will close the bridge and charge the operating entity. Follow up recommendations will be issued to repair or remove the bridge. The follow-up site visits will be performed on a frequency determined by the regional/area office to verify the bridge remains closed until the recommendations to repair or remove are

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completed. Once repairs are completed, an initial inspection will be performed and routine inspections will resume. If removed, the regional/area office staff will remove the bridge per LND 11-01, and delete from the regional bridge inventory.

D. Response to Critical Findings. If a critical finding is discovered during an inspection of a Type 1 bridge, then a Category 1 recommendation will be issued in a Notification of Closure letter to close the bridge within 10 calendar days of the date of the letter. The Notification of Closure letter will include the following:

- (1) Category 1 recommendation which identifies the critical finding resulting in the closure of the bridge, and detail that the bridge will not be re-opened until the critical finding is corrected.
- (2) Instructions to close the bridge with barriers and sign it “condemned.”
- (3) Notify the operating entity of their duty to monitor and maintain closure barriers and signs to assure they remain in place until the bridge is removed or repaired and reopened.
- (4) Explanation that a critical finding could cause failure or partial failure of the bridge, or could pose a serious traffic safety hazard and include the sentence, “*Bridge failures have occurred nationally that might have been avoided if prompt attention had been given to concerns noted in bridge inspection reports.*”
- (5) Notify the operating entity to adhere to 43 CFR Part 423 *Public Conduct on Bureau of Reclamation Facilities, Lands, and Waterbodies*, which describes the process for closing areas otherwise open to the public.

10. Bridge Inspection Reporting.

A. Type 1 Bridge Inspection Reports. A separate inspection report for each Type 1 bridge will be prepared even if the inspection was conducted as part of a regular RO&M Program field examination. The findings and results of bridge inspections will be recorded in the InspectTech database by the RBPM or the team lead or team member they designate. Updates to the SIA will be made within 120 calendar days of the bridge inspection.

- (1) **Inspection Report Format.** The Type 1 bridge inspection report will be generated through the InspectTech software and include all information required in accordance with the NBIS.

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- (2) **Repairs/Improvements.** Inspection reports will document all repairs and maintenance improvements that have been performed on the bridge since the previous inspections. This is done to document all known maintenance activities that have been performed on the bridge.
 - (3) **Peer Review.** A peer review of the inspection report's content will be made by Reclamation staff that meets the qualifications of the team leader. The peer reviewer's name, signature, and date will be included on the report. Peer review will comply with RM Policy CMP P14, *Peer Review of Scientific Information and Assessments*.
 - (4) **Report Signature.** If the team leader is not a Registered Professional Engineer, the peer reviewer, who will review and sign the report, must be a Registered Professional Engineer.
 - (5) **Report Transmittal and Distribution.** Final Type 1 bridge inspection reports will be transmitted within 120 calendar days of the inspection date by the responsible regional or area office which authorizes the report. Minimum distribution will consist of one electronic copy to the Director, POLICY, Attention: 84-57000; and copies to the responsible regional director, the responsible area manager, other involved offices and parties in the inspection, team members, peer reviewer, and the responsible operating entity.
- B. **Type 2 Bridge Inspection Reports.** The results of Type 2 bridge inspections will be included in the appropriate report based on the type of review the bridge was inspected under as defined in Paragraph 8.D. *Type 2 Bridge Inspections*. Reports will be completed and transmitted in accordance with the governing D&S for the type of review performed. A copy of the report is to be sent to the RBPM.

11. Funding.

- A. **Bridge Inventory and Inspection Activities.** Funds expended for Type 1 bridge inventory; as well as Type 1 and Type 2 bridge inspection activities including crossing inspections for Reclamation-owned facilities, are non-reimbursable.
- B. **Funding of Recommended Work.** Unless otherwise authorized (e.g., existing contract language provides for different funding), the work involved with completing the O&M recommendations resulting from the inspection of Type 1 and Type 2 bridges by a non-federal operating entity will be funded by them as a project O&M activity. For reserved works, funding and reimbursement will be in accordance with current project O&M allocations.

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12. Transferred Works O&M Bridge Responsibilities/Status.

A. **Notification Letter to Operating Entities.** By formal letter, each regional/area office will inform operating entities under their jurisdiction of Reclamation's bridge inspection responsibilities. This is meant to be a one-time notification and documentation effort, unless the operating entity or managing office changes in the future. The formal letter will include the following, as applicable:

- (1) Information regarding Reclamation's bridge inspection program and requirements.
- (2) A listing of all confirmed Type 1 and 2 bridges that the operating entity is currently responsible for operating and maintaining.
- (3) A request for the operating entity to submit a list of current bridges necessary for O&M or local landowner access and which Type 1 bridges must be restricted for the purpose of reclassification as Type 2 bridges.
- (4) A request for the operating entity to submit a list of bridges it believes are unnecessary for O&M or local landowner access and any recommendations regarding removing, selling, or transferring title.
- (5) Notification that the operating entity is responsible for implementing any access restrictions, in addition to resolving any formal recommendations regarding bridges in order to safeguard employees and the general public. Any such restrictions or improvements are to be subject to the approval of Reclamation. If upgraded, improved, or restricted, the bridge will then be considered for re-categorization and inspected as outlined within this D&S.
- (6) Notification of Reclamation's inspection schedule related to Type 1 bridges on related project facilities, in accordance with the NBIS.
- (7) Notification of Reclamation's intent to conduct periodic evaluations of Type 2 bridges on related project facilities, or associated facilities as part of regularly scheduled formal reviews. If there are more bridges than practicable to review during the regularly scheduled RO&M examination, then Reclamation will work with the operating entity to compile a list of all bridges based on those previously inspected and classified as poor as indicated in Paragraph 8.D.(1)(b) of this D&S.

B. Bridges Designated as Unneeded.

- (1) Certain bridges will require special attention to determine or verify ownership and their necessity, possibly requiring significant time and resources for resolution. If

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a bridge is determined to be unnecessary for O&M access by the responsible operating entity as identified Paragraph 5.A.(10), then Reclamation will consider each bridge and:

- (a) formally justify the necessity of the bridge to the operating entity, and retain ownership of the bridge, or
 - (b) transfer ownership/title of the bridge to the operating entity, or
 - (c) negotiate the terms of, and complete, a transfer or sale of the bridge to a private landowner or other entity if desired, or
 - (d) demolish or otherwise permanently remove the bridge from service, because no bridge is to be abandoned in place
- (2) For items (b), (c), and (d) above, refer to LND 11-01 for Reclamation requirements and procedures related to disposal of bridges that are not needed for project purposes.

- C. **Historic Bridges.** Any action including title transfer, sale, or removal, to be taken on a bridge considered to be “historic” requires consideration under Section 106 of the National Historic Preservation Act. Refer to RM D&S, *Cultural Resources Management* (LND 02-01) for further information and requirements.

RECLAMATION MANUAL TRANSMITTAL SHEET

Effective Date: _____

Release No. _____

Ensure all employees needing this information are provided a copy of this release.

Reclamation Manual Release Number and Subject

Summary of Changes

NOTE: This Reclamation Manual release applies to all Reclamation employees. When an exclusive bargaining unit exists, changes to this release may be subject to the provisions of collective bargaining agreements.

Filing instructions

Remove Sheets

Insert Sheets

All Reclamation Manual releases are available at <http://www.usbr.gov/recman/>

Filed by: _____

Date: _____