



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

CECW-CE

AUG 17 2017

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Implementation Guidance for Section 9004 of the Water Resources Development Act of 2007 (WRDA 2007), as amended by Section 3016(d) of the Water Resources Reform and Development Act of 2014 (WRRDA 2014) and Section 1130(b) of the Water Resources Development Act of 2016 (WRDA 2016) (33 U.S.C. 3303), Inventory and Inspection of Levees

1. Section 9004 of WRDA 2007, as amended by Section 3016(d) of WRDA 2014 and Section 1130(b) of WRDA 2016 (33 U.S.C. 3303) authorizes the establishment of a levee databases, inventory and inspection of levees, and a one time inventory and review of all levees in the levee database. Section 9004 of WRDA 2007, as amended (33 U.S.C. 3303) is enclosed.
2. In accordance with Section 9004(a), U.S. Army Corps of Engineers (USACE) has established and is maintaining a National Levee Database (NLD). The NLD is a dynamic, searchable inventory of information about levee systems and serves as a key national resource supporting decisions and actions affecting levee safety. The NLD uses a three-tiered approach to information access: 1) full access; 2) area of responsibility access; and 3) general public access. The NLD was open for access in October 2011 and is located at <http://nld.usace.army.mil>.
3. USACE has completed the inventory and inspection of levee systems operated and maintained by USACE, those federally authorized and locally maintained, and those non-federal levees that participate in the USACE Rehabilitation Program, as specified in Section 9004(b). This inventory includes approximately 2,500 levee systems, which together comprise 14,700 miles of levees. The information associated with these levees is in the NLD.
4. As part of its Levee Safety Program, USACE has developed a scalable risk assessment methodology for levees to facilitate risk-informed decision-making. USACE conducts three types of risk assessments ranging from a screening level risk assessment, to a Semi-Quantitative Risk Assessment (SQRA), to a Quantitative Risk Assessment (QRA) based on the decision to be made. Moving from screening level to semi-quantitative to quantitative incrementally increases in detail and confidence to reduce uncertainty in the results. All risk assessments use a tiered review and approval process. The final step in the risk assessment process is risk characterization. Risk characterization takes the information from the risk assessment, qualitatively or quantitatively, and puts the levee system in the context

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of risk by describing the key drivers of likelihood of performance, potential consequences, sources of uncertainty, and urgency of actions to be taken. As part of the risk characterization process a Levee Safety Action Classification (LSAC) is assigned to each levee system. The LSAC assignment is based on risk from a life safety perspective, but also recognizes the economic and environmental considerations.

5. Section 9004(c) requires a one-time inventory and review of all levees identified in the NLD. USACE has already conducted an inventory and review (a risk assessment and risk characterization) for a majority of the levees identified in Section 9004(b) and anticipates completing all of them by Fiscal Year 2018. In addition to information collected for the levees identified in Section 9004(b), there are currently approximately 15,000 miles of additional levees identified in the NLD. For those levees, the following process will be followed:

a. CECW-CE is responsible for leading, implementing, and managing activities related to the levee review effort, subject to the availability of funds. Resource support will be provided by the Mississippi Valley Division Dam and Levee Safety Production Center. CECW-CE will send a notification letter to the Governor of each State and to the chief executive of tribal governments, as applicable, describing the effort and requesting a point of contact for coordination. No review will be undertaken for any levee that has been inspected by a state, regional district, or Indian Tribe using the LSAC methodology during the 1-year period preceding the date of enactment of WRDA 2016 if requested by the Governor of the state or Chief Executive of the regional district or tribal government, as applicable.

b. A USACE interdisciplinary team comprised of three to five people will be established for each USACE division. CECW-CE will provide funding for USACE personnel participation on these teams. Specific states will be assigned to each team. These teams will be responsible for the following:

(1) Internal coordination with appropriate programs and functional areas within the district and division such as Silver Jackets, Levee Safety, Emergency Management, Tribal Liaisons, and Public Affairs.

(2) Coordination with the state point(s) of contact.

(3) Identification of and coordination with participating regional, tribal, and local entities.

(4) Identification of levees not currently in the NLD.

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(5) Collection of available levee information and the performance of a one-time inspection and screening level risk assessment using current USACE procedures following a request for the inspection and assessment from the levee owner / operator.

(6) Coordination of information related to the location, condition, and risks, including LSAC associated with these levees as appropriate. Providing best practices to improve processes and sharing knowledge with interested parties.

c. Levee information collected through this effort will be included in the NLD to assist in sharing information with states, tribes, regional levee districts, and other federal agencies, and to promote community and public awareness of benefits and flood risks associated with levees.

6. Questions regarding this implementation guidance may be directed to Tammy Conforti, at (202) 761-4649 or Tammy.Conforti@usace.army.mil.

Encl



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Director of Civil Works

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(a) LEVEE DATABASE.

(1) **IN GENERAL.** 1 year after the date of enactment of the Water Resources Development Act of 2016, the Secretary shall establish and maintain a database with an inventory of the Nation's levees.

(2) **CONTENTS.** The database shall include:

(A) location information of all Federal levees in the Nation (including global information system information) and updated levee information provided by States, regional districts, Indian tribes, Federal agencies, and other entities.

(B) utilizing such information as is available, the general condition of each levee; and

(C) an estimate of the number of structures and population at risk and protected by each levee that would be adversely impacted if the levee fails or water levels exceed the height of the levee.

(3) **AVAILABILITY OF INFORMATION.**

(A) **AVAILABILITY TO FEDERAL, STATE, REGIONAL, TRIBAL, AND LOCAL GOVERNMENTAL AGENCIES.** - The Secretary shall make all of the information in the database available to appropriate Federal, State, regional, tribal, and local governmental agencies.

(B) **AVAILABILITY TO THE PUBLIC.** The Secretary shall make the information in the database described in paragraph (2)(A), and such other information in the database as the Secretary determines appropriate, available to the public.

(b) INVENTORY AND INSPECTION OF LEVEES.

(1) **FEDERAL LEVEES.** The Secretary, at Federal expense, shall establish an inventory and conduct an inspection of all Federally owned and operated levees.

(2) **FEDERALLY CONSTRUCTED, NONFEDERALLY OPERATED AND MAINTAINED LEVEES.** The Secretary shall establish an inventory and

conduct an inspection of all Federally constructed, non-Federally operated and maintained levees, at the original cost share for the project.

- (3) PARTICIPATING LEVEES. For non-Federal levees the owners of which are participating in the emergency response to natural disasters program established under section 5 of the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes", approved August 18, 1941 (33 U.S.C. 701n), the Secretary shall establish an inventory and conduct an inspection of each such levee if the owner of the levee requests such inspection. The Federal share of the cost of an inspection under this paragraph shall be 65 percent.

(c) LEVEE REVIEW.

- (1) IN GENERAL. The Secretary shall carry out a one-time inventory and review of all levees identified in the national levee database.
- (2) NO FEDERAL INTEREST. The inventory and inspection under paragraph (1) does not create a Federal interest in the construction, operation, or maintenance of any levee that is included in the inventory or inspected under this subsection.
- (3) REVIEW CRITERIA. In carrying out the inventory and review, the Secretary shall use the levee safety action classification criteria to determine whether a levee should be classified in the inventory as requiring a more comprehensive inspection.
- (4) STATE, REGIONAL, AND TRIBAL PARTICIPATION. At the request of a State, regional district, or Indian tribe with respect to any levee subject to review under this subsection, the Secretary shall
 - (A) allow an official of the State or Indian tribe to participate in the review of the levee; and
 - (B) provide information to the State or Indian tribe relating to the location, construction, operation, or maintenance of the levee.
- (5) EXCEPTIONS. In carrying out the inventory and review under this subsection, the Secretary shall not be required to review any levee that has been inspected by a State, regional district, or Indian tribe using the same methodology described in paragraph (3) during the 1-year period immediately preceding the date of enactment of this subsection if the Governor of the State or chief executive of the regional district or tribal government, as applicable, requests an exemption from the review.