



REPLY TO  
ATTENTION OF

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

MAR 29 2016

CECW-EC

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Implementation Guidance for Section 3022 of the Water Resources Reform and Development Act of 2014 – Durability, Sustainability, and Resilience

1. Section 3022 of the Water Resources Reform and Development Act of 2014 (WRRDA 2014) directs the Secretary to encourage, to the maximum extent practicable, the use of durable and sustainable materials and resilient construction techniques that allow a water resources infrastructure project to resist hazards due to a major disaster and to continue to serve its primary function following a major disaster; reduce the magnitude or duration of a disruptive event to a water resources infrastructure project; and have the absorptive capacity, adaptive capacity, and recoverability to withstand a potentially disruptive event. A copy of Section 3022 of WRRDA 2014 is enclosed.

2. The following definitions of durable materials, sustainable materials, and resilient construction techniques apply:

- a. Durable materials are those materials that provide longer service life than comparable materials when both meet design requirements.
- b. Sustainable materials are those materials that can be produced, used, and reused without depleting non-renewable resources and without disrupting the key economic, social, and natural resource systems.
- c. Resilient construction techniques are those practices that increase performance reliability in anticipated use, reduce the risk of failure during extreme events, maintain a project's primary function during changing conditions, and/or help meet specific community recovery goals for water resources infrastructure projects.

3. The Corps has long incorporated durability, sustainability, and resilience into its established designs and construction requirements and practices. In accordance with Section 3022, design teams are directed to place further emphasis on the selection of more durable and sustainable materials and the wider use of resilient construction techniques, as defined in paragraph 2, above, as applicable and to the extent practicable. This direction will be incorporated in future updates of applicable guidance.

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4. The Corps is committed to continuing to evolve its understanding and implementation of risk-informed approaches, where justified on a cost or life-safety basis, to exceed minimum standards and to ensure that risks to plausible future conditions are properly assessed and considered in the selection of means, methods, and materials; long-term sustainability; and, greater water resources project resilience.



JAMES C. DALTON, P.E.  
Chief, Engineering and Construction  
U.S Army Corps of Engineers

Encl

DISTRIBUTION:  
All MSC Commanders

**SEC. 3022. DURABILITY, SUSTAINABILITY, AND RESILIENCE.**

In carrying out the activities of the Corps of Engineers, the Secretary, to the maximum extent practicable, shall encourage the use of durable and sustainable materials and resilient construction techniques that—

(1) Allow a water resources infrastructure project—

(A) to resist hazards due to a major disaster; and

(B) to continue to serve the primary function of the water resources infrastructure project following a major disaster;

(2) Reduce the magnitude or duration of a disruptive event to a water resources infrastructure project; and

(3) Have the absorptive capacity, adaptive capacity, and recoverability to withstand a potentially disruptive event. Methods, and materials; long-term sustainability; and greater water resources project resilience.

Enclosure