

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
441 G Street, NW
Washington, DC 20314-1000

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Project Operation
USACE CONDITION ASSESSMENTS

1. Purpose. This policy establishes the requirements for collection of condition data which will be communicated to both internal and external stakeholders in a consistent format for all U.S. Army Corps of Engineers (USACE) Civil Works (CW) assets.
2. Applicability. This document is applicable to all USACE Major Subordinate Commands (MSCs) having CW responsibilities. Specific procedures for each program are included at <https://assetmanagement.erdcdren.mil/>.
3. Distribution Statement. Approved for public release; distribution is unlimited.

FOR THE COMMANDER:

JOHN P. LLOYD
COL, EN
Chief of Staff

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4. References.
 - a. Executive Order 13327, Federal Real Property Asset Management, 4 Feb 2004. (<https://www.govinfo.gov/content/pkg/FR-2004-02-06/pdf/04-2773.pdf>)
 - b. DoD Memorandum, SUBJECT: “Standardizing Facility Condition Assessments”, 10 SEP 2013 (<https://www.acq.osd.mil/eie/Downloads/FIM/DoD%20Facility%20Inspection%20Policy.pdf>)
 - c. Engineer Regulation (ER) 1110-2-111, USACE Bridge Safety Program (<https://www.publications.usace.army.mil/>)
 - d. ER 1110-2-8157, Responsibility for Hydraulic Steel Structures (<https://www.publications.usace.army.mil/>)
 - e. Engineer Manual (EM) 1110-1-400, Recreation Facility and Customer Service Standards (<https://www.publications.usace.army.mil/>)
 - f. EM 1110-2-1102, Inspection and Evaluation of USACE Bridges (<https://www.publications.usace.army.mil/>)
 - g. EM 1110-2-6054, Inspection, Evaluation and Repair of Hydraulic Steel Structures (<https://www.publications.usace.army.mil/>)
5. Records Management (Recordkeeping) Requirements. The records management requirement for all record numbers, associated forms, and reports required by this regulation are addressed in the Army's Records Retention Schedule – Army (RRS-A). Detailed information for all related record numbers are located in the Army Records Information Management System (ARIMS)/RRS-A at <https://www.arims.army.mil>. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS-A, see Department of the Army Pamphlet 25-403, Guide to Recordkeeping in the Army.

6. Overview. USACE operates and maintains a diverse portfolio of assets. These assets are monitored through various methods and the resulting data is assessed to determine condition of the assets. Asset condition is a measure of the health of an asset, is a key parameter in determining remaining useful life of the asset and is an indicator of how well it can perform its function.

7. Assessment Process Requirements.

a. For each program listed below, condition assessment guidance that enforces the requirements of this policy can be found at: <https://assetmanagement.ercd.dren.mil/>.

(1) Inland Navigation Locks and Dams Operational Condition Assessment.

(2) Flood Risk Management Operational Condition Assessment.

(3) Coastal Navigation Structures Operational Condition Assessment.

(4) Recreation Operational Condition Assessment.

(5) Hydropower Condition Assessment.

(6) Sustainment Management Systems Builder Condition Assessment.

(7) Bridge Safety Inspection Program.

(8) Hydraulic Steel Structures Inspection Program.

b. The condition of USACE CW assets will be assessed using structured processes and procedures as defined in the guidance developed for each program. Condition ratings will be obtained and documented through formal assessments which will rely on data obtained through various forms of asset monitoring. The outcome of a condition assessment will be a rating that will assist to inform stakeholders of the remaining useful life, probability of failure, or the associated risk of the asset being monitored. Following is a list of requirements for assessing condition of assets.

(1) Condition ratings will be determined from assessments of data obtained from various forms of asset monitoring including but not limited to inspections specific to perform condition assessments, Facilities Equipment Maintenance records, various continuous monitoring efforts, oil analysis, vibration analysis, operator logs, Periodic Inspections, Periodic Assessments, Hydraulic Steel Structures Inspections, Annual Inspections, dive inspections, damage surveys, or other inspections.

(2) When events such as an inspection or engineering analysis are necessary to specifically gather condition data, these events will be coordinated with other data gathering efforts to reduce overall costs.

(3) Condition ratings are a point-in-time performance assessment of data obtained from asset monitoring. Assessments will be scheduled as needed to ensure current condition ratings for use by portfolio managers and alignment with budget submission timelines. The assessment date will be documented to ensure current condition data.

(4) Interpreting data from asset monitoring and assigning condition ratings requires significant judgment by the assessor. Because of this, teams will consist of the appropriate disciplines, subject matter experts, and certifications for the data being analyzed. Similarly, the assessment process must include measures to promote impartiality and national consistency.

(5) Condition assessments rely on quality data to appropriately apply condition ratings. Gaps in data gathering must be documented. When relevant data is not available to appropriately assess an asset, the circumstances will be documented and/or the asset will not be rated.

(6) Some programs will have a risk analysis using condition data to inform probability of failure. When this occurs, the interpretation of gathered data and methods to apply the condition rating must be aligned with a formal process or statistical crosswalk which translates condition ratings to probability of failure.

c. A rating scale that accurately communicates condition will be used.

d. Quality control (QC) and quality assurance (QA) will be performed on the condition assessment process and ratings data to ensure the requirements of this policy are enforced and to detect impartiality and subjectivity. QC and QA is the responsibility of the MSC. The MSC may delegate QC to the districts. Additional QA will be performed at the national level.

e. Condition ratings will be documented in an approved database.

8. Funding. Funding for assessments will come from the appropriate funding stream provided for routine and annual inspections and assessments. When feasible, different data gathering efforts will be coordinated to reduce overall costs.

9. Training. National training that supports the requirements of this policy will be provided by USACE Headquarters (HQ). National training will also be provided by USACE HQ for program specific guidance.

10. Personnel. USACE has various programs that assess the condition of components. Each program's respective Program Manager will ensure compliance with this policy. Each program will have guidance that provides details on the appropriate personnel to perform condition assessment tasks at the District, Division, and HQ levels.

Glossary

Assessment

The application of professional judgment using data from asset monitoring to determine/apply an asset's condition rating.

Assessor

Person who assesses data gathered on USACE assets to apply a condition rating.

Asset

Any resource, facility, area, structure, installation, or piece of equipment for which USACE has the maintenance responsibility to identify needs, prioritize work, perform maintenance, and/or track results.

Asset Management (AM)

The systematic and coordinated activities and practices through which an organization optimally and sustainably manages its assets and asset systems along with their associated performance, risks, and expenditures over their life cycles for the purpose of achieving its organizational strategic plan.

Condition

A component's ability to meet its feature mission requirements.

Condition Rating

The result of an assessment; a formal representation of the remaining useful service life or risk of failure of the component being monitored.

Impartiality

A principle of justice holding that decisions should be based on objective criteria, rather than on the basis of bias, prejudice, or preferring the benefit to one person over another for improper reasons.

Inspection

A form of data gathering that involves detailed observation of the asset.

Major Subordinate Command (MSC)

Divisions within USACE.

Monitoring

Observe the condition of assets through methods such as instrumentation and inspections to keep a continuous record of condition. Includes, but not limited to, preventive maintenance checks, oil analysis, vibration analysis, debris analysis, other continuous monitoring, operator observation, direct observations of the assessor, Periodic Inspections, Periodic Assessments, Hydraulic Steel Structures Inspections, Annual Inspections, dive inspections, damage surveys, or Facility Equipment Maintenance records.

Performance

The ability of a component to perform its intended function and provide the required level of performance to fulfill its mission. This can be measured in terms of reliability, availability, measures of acceptability based on computational analysis, capacity, and meeting customer demands/needs.

Probability of Failure

The probability or chance that a unit drawn at random from the population will fail by time t .

Quality Assurance/Quality Control (QA/QC)

The combination of QA (the process or set of processes used to measure and assure the quality of a product) and QC (the process of meeting products and services to consumer expectations). QA is process oriented and focuses on defect prevention. QC is product oriented and focuses on defect identification.

Risk

The measure of the probability and severity of undesirable consequences; the relationship between the consequences resulting from an adverse event and its probability of occurrence, which is measured as (Probability of an Event) x (Probability of Adverse Response to the Event) x (Consequences of the Event).

Stakeholder

A stakeholder is any person or organization that has a legitimate interest in a specific project or decision. For this document, references to internal stakeholders include business line managers, functional leaders, and users of AM tools. External stakeholders refer to Congressional, Administration, and industry groups with interest in how the agency makes decisions as well as the decisions themselves.