



*Prepared by/for:*  
**Modeling, Mapping,  
and Consequences**

**Appendix 1.7**

# **MMC Program Metrics Definitions**

## **FY2023 Standard Operating Procedures for Dams**

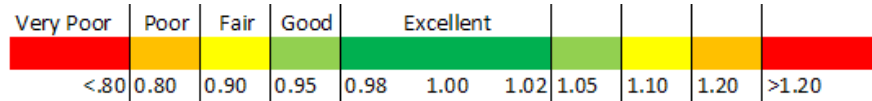
**March 2022**

| Date       | Principal Author | Comments                 |
|------------|------------------|--------------------------|
| 3/25/2013  | MMC              | Technical Edit           |
| 11/5/2014  | MMC              | Technical Review         |
| 1/14/2016  | MMC              | Technical Review         |
| 12/1/2016  | MMC              | Template Conversion/Edit |
| 12/2/2016  | MMC              | Technical Review         |
| 09/26/2018 | MMC              | Annual Update            |
| 04/20/2020 | MMC              | Annual Update            |
|            |                  |                          |
|            |                  |                          |

Metrics are measured via a combination of the Modeling, Mapping, and Consequences (MMC) schedule database and the MMC quality control (QC) review database. Initial reporting is quarterly with a goal to transition to monthly reporting. All metrics are based on 2011 and later study starts. The 2009–10 studies are not included in the assessments. All metrics are presented for the MMC program as a whole and by funding program (i.e., dam safety, levee safety).

### 1.1 EARNED VALUE

Cost Performance Index (CPI) Range:



#### Discussion

This is the bottom line MMC program metric where EV equals earned value and AC equals actual cost.

$$CPI=EV(\$/AC(\$)$$

### 1.2 PROGRAM MILESTONES

Corps Infrastructure and Resilience Program (CIPR) and Risk Management Center (RMC) product milestones:

- Excellent: >90% of milestones
- Good: 85–90% of milestones
- Fair: 75–85% of milestones
- Poor: 65–75% of milestones
- Very Poor: <65% of milestones

#### Discussion

MMC and the funding programs jointly track a list of key milestones. The metric is measured monthly via consensus assessment of milestone schedule and milestone status.

### 1.3 DISTRICT REVIEW SCHEDULES

- Excellent: Average DRO≤+10
- Good: Average DRO+11 to +30
- Fair: Average DRO+30 to +60
- Poor: Average DRO+61 to +90
- Very Poor: Average DRO>+90

#### Discussion

Measures timeliness of final reviews from districts. Separated from metric 2 because reviews involve non-MMC resources, and slippages may require different cure strategies. Measured by QC review database, as QC review completed within pre-defined timeframes per standard operating procedure (SOP). Reported as days reviews outstanding (DRO) for conforming products. DRO is the number of days slipped beyond the standard 10-week (70 day) QC review schedule.

### 1.3.1 Conforming product

Conforming products require no significant rework due to failure to adhere to standards, as identified through district QC review comments. Review timeline for nonconforming products would be eliminated from the DRO computation, but tracked via metric 4, as extended review timelines for nonconforming products indicate quality issues more than schedule issues.

### 1.3.2 Current Approach

The current approach only addresses final district QC review, for projects with review initiated January 1, 2012 or later. Measure by pulling QC review tracking list and querying for step 3 (package sent to district) date. Determine number of days from start (step 3) to current/reporting date and subtract 70 days (target schedule duration). The value for each dam is the DRO. The metric reports the average for reviews initiated 2012 or later.

### 1.3.3 Future Approach

The future approach will incorporate measures as described in Paragraph 1.3.2 for district model review.

## 1.4 PRODUCT QUALITY

- Excellent: 5 percent or less nonconforming products
- Good: 8–6 percent nonconforming products
- Fair: 10–9 percent nonconforming products
- Poor: 15–11 percent nonconforming products
- Very Poor: >15 percent nonconforming products

### Discussion

Based on district QC review comments generating revisions deemed to result from nonconformance per standards in place when study was initiated. If MMC district quality control (DQC) lead determines non-conforming officer, document via memorandum for record (MFR) and submit to MMC chief and branch chiefs. Note, most revisions are non-critical and do not indicate nonconformance to standards.

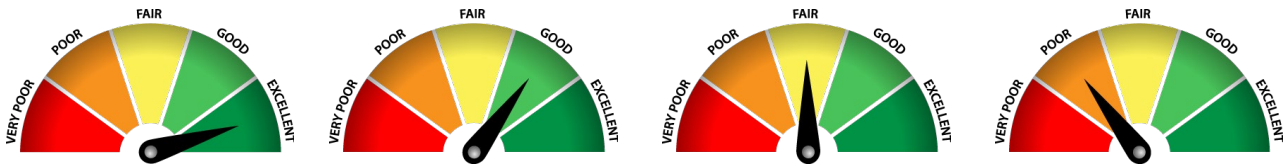


Figure 1-1. Report Graphics