FEMA Public Assistance – 406 Mitigation: Water Control Facilities (Category D)

DR-4856-CA

406 Mitigation Examples

Upsize Culverts

- Replace culverts to handle increased runoff and debris in vulnerable areas after wildfires or heavy storms.

Add Headwalls/Wingwalls

- Headwalls and wingwalls protect culverts from erosion and scouring caused by intense rainfall and runoff.

Install Debris Basins

- To both capture debris/sediment from post-fire runoff and reduce flooding risks during storms.

Nature-Based Solutions

- Use vegetation, rain gardens, and other nature-based solutions to stabilize soil and manage stormwater.

Erosion Control

- Install natural systems such as grass or root wads, or hardened systems such as gabion baskets to reduce future scour conditions.

Pump Stations

- Install joint restraints or flexible piping to reduce damage to pump systems. Elevate mechanical or electrical equipment to reduce the risk of stormwater inundation.

Background and Purpose

The 406 Public Assistance (PA) Mitigation Projects are part of FEMA's efforts to help communities recover from disasters and build back more resilient. **Category D** focuses on repairing and mitigating damage to water control facilities such as drainage channels, levees, flood control dams, and pumping facilities. While PA pays for eligible permanent repairs to return to a pre-disaster design, size, capacity, and function, Section 406 allows for strengthening or upgrading the infrastructure to **reduce future loss.**

Core Mitigation Themes for Category D (Water Control Facilities)

- **Mitigation Objective:** Address future damages from natural disasters that render the surrounding area's infrastructure susceptible to flood damage, implement measures to reduce flood depth and minimize inundation damage. Improved the drainage infrastructure to reduce future repairs.
- **Drainage Systems:** Improve the drainage system by replacing the structure with multiple structures or a larger structure, increase design capacity. Look at the project area and infrastructure.
- **Erosion Control**: Minimize scour and erosion that can lead to cascading damages. Construct erosion and scour countermeasures. Can be used to protect water control facility or adjacent infrastructure.
- **Nature-based Solutions:** FEMA PA now allows for the inclusion of nature-based solutions for flood risk reduction. This can be applicable to projects beyond Cat. D such as buildings.

Common Pitfalls for Category D (Water Control Facilities)

- **No Adverse Impacts:** For sections I.A and I.B, it is important to coordinate with FEMA and the state to determine if a hydrologic and hydraulic (H&H) study is necessary. Proposals must evaluate the appropriate dimensions to ensure there are no negative impacts either upstream or downstream. Additionally, they should comply with National Flood Insurance regulations and other local requirements. Specifically, since the facility is located in a special flood hazard area, it is crucial to consider potential adverse impacts on the floodplain, endangered species, and ensure compliance with the Clean Water Act.

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Practical Tips for Success

Document Pre-Disaster Condition

- Photos, inspection reports, maintenance records all help confirm which damages are disaster-related vs. pre-existing.

Scope of Work Clarity

- Separate the repair scope from 406 mitigation scope in your project description.
- Provide necessary engineering or hydrological studies for any capacity changes.

Cost Effectiveness & Reasonableness

- Use Appendix J measures if possible.
- If not in Appendix J, do a short BCA or coordinate with FEMA on cost-effectiveness.

Ask Early, Ask Often

- If you think an improvement qualifies as 406 mitigation, flag it to your FEMA/Cal OES PA contacts right away.

Funding Eligibility Dates

- January 8, 2025 – Major Disaster Declaration (DR-4856-CA)
- January 15, 2025 – Public Assistance Categories C-G Approved (permanent work)
- July 8, 2026 – 18 Month Permanent Work Deadline

Resources

- Public Assistance Program & Policy Guide-PAPPG v5 effective January 6, 2025
    - **Category D:** Pgs. 194-196
    - **Appendix J.I. Drainage:** Pg. 314
- Building Code and Floodplain Administration and Enforcement- FEMA Policy FP 204-079-01
- Public Assistance Companion Guide-Disaster Recovery Reform Act: Section 1206

Contact Us

Cal OES Public Assistance: disasterrecovery@caloes.ca.gov

406 Mitigation Process Timeline

1. Initial Damage Assessment: Inspect damaged areas and document disaster-related damage with photos, inspection reports, and maintenance records.

2. Project Planning: Define Scope of Work (SOW) for repairs and identify potential mitigation measures.

Select mitigation strategies like culvert upsizing or slope stabilization.

3. Application Preparation: Complete FEMA PA forms and compile all necessary documents, such as damage assessments, engineering plans, and cost estimates.

4. Submission & Review: Submit application by deadline; FEMA reviews for eligibility and compliance.

5. Approval & Funding: Receive funding allocation for approved repairs and mitigation activities.

6. Project Implementation: Begin repairs and mitigation while adhering to approved plans.

7. Monitoring & Reporting: Track progress and submit regular updates to FEMA/Cal OES.

8. Project Closeout: Conduct final inspections and submit final documents for reimbursement and closeout.