

8-A EMERGENCY MAINTENANCE – GENERAL

Description: This action includes fixing damage to roadways, the roadside and structures (bridges) caused by storms, floods, and other activities. Failure to perform these activities may result in immediate threat to life, limb, or structures. Typical activities include: routine storm damage patrol, debris removal, emergency opening of road, and repairs to roadbed, slopes, and drainage facilities. After a major flood, for example, it may take several days to identify the extent of county road-related problems. While one cannot control the timing or location of where emergency situations will occur, the county can plan for various emergency scenarios involving county roads and the need for stream protection.

Regulatory Definitions of “Emergency”:

COE regulations: “A situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard.”

ESA rules: “A situation involving an act of God, disasters, casualties, national defense or security emergencies, etc., and includes response activities that must be taken to prevent imminent loss of human life or property.” (50 CFR 402.05)

California Environmental Quality Act: “A sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage.” (CEQA 15359)

Environmental Concerns:

- Discharge of sediment, organic material, and other potential pollutants to the stream or storm water drainage system

Best Management Practices:

1. Provide quick response and first inspection, and notify appropriate agencies in a timely manner (see list under Permits below).
2. Avoid additional impacts to wetlands, riparian areas or streams where possible.
3. Ensure appropriate training of county road staff in emergency response measures, including hazardous materials handling.
4. Provide adequate erosion control or bank stabilization necessary to keep material from entering watercourses. Include bioengineering and fish friendly designs in such emergency remedial actions, where practicable for road or bridge stability and public safety (See: Appendix B-4 Erosion Control)

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5. Seek to have temporary bridge structures (such as Big R, or Bailey bridges) available within the county that could be used to temporarily replace a washed-out bridge in an emergency.
6. For flood debris removal at bridges, see: 7-A – Drift Removal
7. Ensure that any needed excavation of excess material in a stream channel above and below a bridge or a stream culvert is done only to the original baselevel of the streambed, not below it. If too much is removed, a new channel is created causing headcuts to migrate upstream within the floodplain and altering the ability of the floodplain to store fine sediment. This practice is particularly critical where roads cross forested floodplains and floodplain fans where sediment is stored at the mouth of small ephemeral tributary canyons.
8. When an emergency situation is significantly impacting, or could impact, a stream system (e.g., the natural flow of a watercourse is disrupted by a large flood or landslide), seek the advice of appropriate experts prior to performing the permanent repair work. Relevant expertise includes professional hydrologists, geologists, geomorphologists, geotechnical engineers, and fishery biologists.
9. Perform any additional remedial work that may be required by the permitting agencies as a condition of the post-project permits.

Permits Possibly Needed:

- DFG regulations (Fish & Game Code Section 1601(f)): Project proponents are not required to notify DFG or obtain a Streambed Alteration Agreement before commencing the following emergency work under these conditions: 1) immediate emergency work necessary to protect life or property; 2) immediate emergency repairs to public service facilities under specified circumstances; 3) emergency projects undertaken, carried out, or approved by a public agency to maintain, repair, or restore an existing highway, as defined, within the existing right-of-way of the highway, damaged as a result of fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide, within one year of the damage. Work needed in the vicinity above and below a highway may be conducted outside of the existing right-of-way, if it is needed to stop ongoing or recurring mudslides, landslides, or erosion that pose an immediate threat to the highway or to restore those roadways damaged by mudslides, landslides, or erosion to their predamage condition and functionality. This exception does not exempt any project undertaken, carried out, or approved by a public agency to expand or widen a highway damaged by fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide.
- NOTE: CEQA (Sect. 15269) has similar wording for emergency work.
- Instream work requires that DFG be given written notification of emergency work within 14 days after work begins.

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- Instream work requires COE pre-project notification. A post-project 404 permit must be applied for. Nationwide Permit #3 authorizes the repair, rehabilitation, or replacement of those structures destroyed by storms, floods, fire or other discrete events, provided the repair is begun (or under contract to begin) within 2 years of the date of their destruction or damage.
- Instream work requires a RWQCB post-project 401 permit, where a 404 permit is required.
- Work potentially impacting stream habitat with ESA-listed species requires NMFS pre-project notification if federal funding is being used or federal permits are required (ESA Section 7 - emergency consultation). A sheet with the following information can be faxed to the Arcata or Santa Rosa office, “Attention: ESA Section 7 Emergency Consultation”:
 - ✓ County & department name
 - ✓ Road Name & Number
 - ✓ Mile post number
 - ✓ Adjacent stream name
 - ✓ Emergency: describe cause & extent
 - ✓ Brief description of proposed action
 - ✓ Contact Person name with: phone / fax / e-mail

8-B SLIDE AND SETTLEMENT REPAIR

Description: This action includes repair of settlements and slides by placing fill and removing material. Emergency settlement and slide repairs are done primarily when a road is in danger of collapse and to forestall an emergency.

Repair of minor slides and slip-outs includes: cleaning up or backfilling minor slides, slip-outs, or other minor damage to the roadside, the removal of materials (soil, rock, boulders) that have been deposited on the roadway by wind, water, or minor landslides, placing dikes or otherwise controlling drainage at minor slides and slip-outs, filling and repairing minor erosion damage to cut and fill slopes, and clearing the roadside of downed or damaged vegetation.

Environmental Concerns:

- Discharge of sediment, organic debris, asphalt, and other potential pollutants into the stream or storm water drainage system
- Stream habitat damage from heavy equipment use instream or in the riparian zone

Best Management Practices:

1. Follow actions for Emergency Maintenance – General (8-A) and for Erosion Repair & Control (Chapter 3-A-2; Appendix B-4, B-7).
2. Locate and identify watercourses, drain inlets, and drainage ditches downstream of the area where minor slides and slip-outs are being repaired and cleared.
3. Protect watercourses, drain inlets, and drainage ditches from discharges of sediment or organic material. For example, install temporary sediment barriers such as rock filter berms or sandbag barriers. [See: Appendix B-9]
4. Avoid sidecasting of debris material at the site to prevent the discharge of any pollutants into the stream system. Obtaining immediate passage of emergency vehicles may require some sidecasting in some road areas where identified safe disposal sites cannot be reached quickly, but minimize such practice.
5. Identify and plan for slide debris disposal sites in anticipated slide areas as part of local spoil disposal plans. [See: Chapter 5: Disposing the Spoil]
6. Stockpile material initially removed from roadways away from drain inlets, drainage ditches, or watercourses, whenever feasible. Install temporary sediment barriers around stockpiled materials in the winter rainy season after the clean-up and repair of the minor slide and slip-out is completed. [See: Chapter 5: Disposing the Spoil]
7. When clearing the roadside of downed or damaged vegetation, avoid placing the vegetation near drain inlets, or in watercourses or drainage ditches. Leave any large woody debris (LWD) in the adjacent riparian area if it does not pose any threats to downstream structures.

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8. Apply a temporary ground cover of protective mulch to protect the soil surface of the disturbed site from rain and wind erosion, when possible. [See: 3-A-2 Erosion Repair & Control; Appendix B-4]
9. Set up the work area in such a way that vehicles will not track materials in or out, where possible.

Permits Possibly Needed:

- Work affecting stream habitat with ESA-listed species requires that NMFS be contacted prior to any emergency repairs if possible, or as soon as practically possible after, for any emergency project using federal funding. [See 8-A Permits for details]
- Instream work requires DFG 1601 written notification within 14 days from start of emergency project.
- Instream work requires COE post-project 404 permit
- Instream work requires RWQCB post-project 401 permit



8-C ACCIDENT CLEAN-UP

Description: This action includes removal of accident debris, including response to hazardous spills. The accident may be due to: a) county activity, or b) activity by non-county entity or individual, which the county is assisting in cleaning up. Emergency clean-up practices address the isolation, containment, identification, hazard assessment, proper removal, and disposal of spilled substances on highway rights-of-way. Proper containment and clean-up of spilled material, especially material that is spreading rapidly, will reduce the discharge of potential pollutants into watercourses.

Upon knowledge of an incident, County Maintenance's prioritized responsibilities consist of: 1) maintenance of public safety; 2) ensuring through County Environmental Health, County Sheriff, contractors, or other responsible parties, that the appropriate cleanup is properly performed as identified in local accident response procedures.

Environmental Concerns:

- Discharge of hazardous materials, powder or granular materials, liquid materials, or vehicle fluids, into the watercourse or storm water drainage system
- Potential for spilled product entering a creek or stream to contaminate entire downstream course, killing or harming aquatic animal and plant life
- Remote locations of many county roads significantly limit time response time to a major spill into the stream system, reducing the effectiveness of potential remedial measures

Limitations:

- County Road Maintenance actions will be based upon the information available at the time of the emergency. Primary responsibility is to prevent damage, notify the response team, and follow the Incident Commander's instructions.
- The County does not have legal responsibility for clean-up outside of the operating right-of-way in cases where the spill is generated by a third party.

Best Management Practices:

1. Follow County Spill Contingency Plan or Emergency Operations Plan, if none available. Identify key spill response sites around the county, in cooperation with other emergency response agencies, where roads are near to streams and carry truck traffic with potential for spills. Include such plans as an Appendix to this manual.
2. Ensure sufficient, proper and regular training of county road staff in spill contingency measures, especially with hazardous materials. [See: 11-A Training the Staff]
3. Provide proper emergency spill response equipment (such as kits, river booms, oil skimmer) at all maintenance yards and other strategic spill response sites.
4. For spills on roadways:
 - a) Contain spill so it does not enter flowing waters of the stream system, including the storm drain system along the roads.

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- b) Ensure that each county road project site contains spill clean-up/ emergency response kits with sufficient materials to contain at least a small to moderate spill (1-50 gallons).
 - c) Minimize further tracking of spilled material.
4. For drain inlet protection:
- a) Look to see where the flow of the spill would go.
 - b) Identify drain inlets and outlets and watercourses, both upstream and downstream.
 - c) Where safe to do so, protect downstream drainage systems and watercourses from spilled material by covering or blocking storm drain inlets. For example, cover storm drain inlets with sand bags, plastic bags filled with native material, or absorbent booms or other appropriate devices. Remove covers/ blocks once clean-up is completed.
5. Work closely with DFG's Office of Spill Prevention and Response (OSPR) in developing appropriate training, equipment and strategy for dealing effectively with any potential stream spills.

Useful References:

DFG Pollution Response Manual (1998) & Spill Responses Training Manual, DFG - Office of Spill Prevention & Response (OSPR), Sacramento

Upper Sacramento Spill Contingency Plan (Resources Agency & DFG) – based on experience of the toxic “Cantara Spill” caused by Southern Pacific Railroad derailment in 1991

Deer Creek Canyon Highway 32 Contingency Spill Plan and Assessment (2000) – prepared by Deer Creek Watershed Conservancy, Tehama County

Permits Possibly Needed:

- Hazardous material in the storm water drainage system: Notification process is most important with hazardous spills. (See sample Notification Checklist from Humboldt County, Div. of Environmental Health). To notify as soon as possible:
 - ✓ County Sheriff – for dispatch and if substance is off-highway in unincorporated area
 - ✓ County Division of Environmental Health – for all incidents
 - ✓ CDFG - if substance is in or near a waterway or affects wildlife – 1-888-334-2258 (CalTIP number)
 - ✓ CDFG – OSPR – Oil and gas spill reporting at 1-888-334-2258
 - ✓ RWQCB – if substance is in or near a waterway (Co. Environmental Health is responsible for notifying)
 - ✓ Local Hazardous Materials Response Team (HMRT) – in the event of a significant hazardous materials incident, Level II or greater, the HMRT shall be requested immediately by on-scene personnel.
 - ✓ State Office of Emergency Services Warning Center – for all incidents – (800) 852-7550 or Oils Spills at 1-800-OILS-911
 - ✓ California Highway Patrol – if substance is on a roadway or State Highway

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- ✓ Coast Guard Marine Safety Office – if spill is near coast, off shore, or in a bay, call 1-800-424-8802 (National Response Center)
 - ✓ US EPA – if substance is in other than navigable waters and response is beyond the capabilities of local and state resources – (800) 424-8802 National Response Center
 - ✓ NMFS – if potential for contamination of stream with listed salmon or steelhead
 - ✓ Landowner(s) of site where spill occurred, if adjacent to county road.
- Fines are likely for those responsible for accidental spills:

DFG: “Water pollution from these unpermitted sources is unlawful: petroleum, acid, coal or oil tar, lampblack, aniline, asphalt, bitumen, or residuary product of petroleum, or carbonaceous material or substance;... or any substance or material deleterious to fish, plant life, or bird life.” Civil penalty of not more than \$25,000 for each violation is possible. (Fish & Game Code Section 5650)