

Introduction

Emergency work is all necessary work done during or immediately following a disaster to restore essential traffic, to minimize the extent of the damage, or to protect the remaining facilities.

Emergency relief work (including emergency work, incidental permanent work, and permanent work) at a site is eligible for ER funds if the damage was directly related to an eligible event and the cost of the work exceeds \$5,000/site. Since debris removal costs may be widespread rather than site-specific, FHWA will determine if the costs exceed normal maintenance.

The detailed damage inspection report (DDIR), [DOT Form 300-001 EF, Appendix 3](#), and its approval is used to document the scope and eligibility of the work. Normally the region maintenance analyst is responsible for preparing the DDIR for FHWA review and approval. The DDIR must be prepared (normally by the region) and reviewed for eligibility by FHWA within 90 days after the ER event is approved by the FHWA Administrator. The DDIR divides the work on the project into three categories: emergency, incidental permanent, and permanent work. The following is a further definition of these three categories.

Emergency/Temporary Work

The intent of temporary operations, including emergency work, is to restore essential traffic which cannot wait for a finding of eligibility and programming of a project. Emergency work should be accomplished in a manner which will reduce additional work required for permanent work. The department will need to coordinate with resource agencies for permit requirements.

Emergency/temporary work may be eligible for 100 percent federal aid as long as the work is within the first 180 days of the start date of the eligible ER event as declared in the Governor's Proclamation. Repairs made after 180 days following the occurrence are subject to pro rata funding shares. The 180 days is calculated from the first date of the incident as determined with FHWA. The 180-day ending date will be shown on the FHWA Form 120-006. Any repairs done within 180 days to restore the highway to predisaster conditions are permanent and are funded at pro rata share.

The use of emergency relief (ER) funds for emergency work on roadways will normally be limited to the amount necessary to bring the washed-out fills and slip outs back to grade with a gravel surface. In most cases the emergency work will not construct the roadway to a true line and grade but rather follow the terrain and be constructed in the easiest and fastest manner. Nevertheless, work on the roadway should be adequate so that traffic can travel over it safely at a speed reasonable for the site conditions.

Examples of Emergency/Temporary Repairs

- Re-grading of roadway surfaces, roadway fills, and embankments.
- Debris and slide removal.
- Replacement of approach fills.
- Required traffic control during the emergency.
- Construction or implementation of detours.
 - Roadway connections, temporary bridges ferryboat usage.
- Replacement of riprap to protect structures or roadway embankments.
 - From further damage during the event or following the event.
 - Embankment protection includes direct scour and overtopping scour.
 - Note:* placement of riprap at new locations is a betterment.
- Removal of drift deposited debris including boat rental.
- Short sections/lengths of bituminous surfacing on routes with heavy traffic.

Incidental Permanent Work

FHWA's concurrence in the need for repair does not in itself authorize the agency to proceed with permanent restoration work on damaged roadways. However, there may be situations in which immediate completion of the permanent restoration portion of the work is the most economical and feasible way to quickly restore essential traffic. In these situations the permanent restoration work is considered to be incidental permanent restoration work and can be performed with the emergency work, provided it is properly documented in the DDIR. If such work has been accomplished prior to the site damage review, retroactive approval may be given when circumstances warrant. Always coordinate with your FHWA regional engineer, and ensure you have a signed DDIR before you proceed with this type of work. Also, ensure that HQ has a signed federal aid agreement (FHWA Form 120-006) before proceeding with the work. Incidental permanent work requires FHWA approval and is funded at the normal match rate for the route regardless of when the work is done.

Documentation of this Determination is Essential

Example 1 – An example would be a bridge and approaches being washed out, construction of a detour being both costly and time consuming, and the agency having precast concrete girders readily available that could be used at the site. In such a case, immediate construction of the permanent structure and approaches could be accomplished at the discretion of the department and FHWA would consider the work to be incidental permanent restoration and would be documented and reimbursed at the pro rata share.

Example 2 – The placement of the final surfacing is normally considered to be permanent work. But it may be considered incidental permanent restoration work in some cases. Such paving must have FHWA concurrence, on the DDIR or subsequent to the DDIR, to be eligible for federal participation. FHWA will consider traffic characteristics, remoteness of the site, traffic control requirements, and socioeconomic factors before approval.

Permanent Work

Permanent repairs are those repairs undertaken, normally after emergency work has been completed, to restore the highway to predisaster conditions, and requires prior FHWA authorization. Permanent repairs require a separate FHWA Form 120-006 before starting any phase of permanent work, including preliminary engineering for the permanent repair or going to bid if the work is contracted out. Any permanent work performed prior to approval and authorization of the FHWA Form 120-006 is not eligible for federal reimbursement. (This is in addition to the FHWA Form 120-006 form required for the emergency or incidental permanent work.)

A work order authorization for permanent work needs to be submitted to Headquarters at least three weeks ahead of the planned start date to allow adequate time for processing in Headquarters (Program Management and Accounting and Financial Services) and with FHWA.

Permanent restoration is funded at the normal match rate for the route regardless of when the work is done. Permanent restoration shall be administered using normal federal aid procedures that include written authorization, NEPA clearance, design approval, permits, right of way certification, Plans, Specifications and Estimates (PS&E), advertisement period, etc. The construction phase of all permanent restoration work must begin within two years after the event.

Permanent restoration may involve one or more of the following categories of work:

1. **Restoration-in-Kind** – The ER Program provides for repair and restoration of highway facilities to predisaster conditions. Restoration-in-kind is the expected predominant type of repair to be accomplished with ER funds. Any additional features or changes in character from that of the predisaster facility are considered to be betterments and are generally not eligible for ER funding unless they can be justified because of construction, economy, prevention of future recurring damage, or technical feasibility.
2. **Replacement Facilities** – Where a facility has been damaged to the extent that restoration to its predisaster condition is not technically or economically feasible, a replacement facility is appropriate. Replacement facilities should be constructed to current design standards. ER participation in a replacement roadway will be limited to the costs of current design standards of comparable capacity (i.e., number of lanes), and character (i.e., surfacing type, access control, rural/urban section). Replacement of a bridge will be the cost of a new bridge to current design standards for the type and volume of traffic it will carry during its design life.

ER participation may be prorated at the costs of a comparable facility when the proposed replacement project exceeds the capacity and character of the destroyed facility.

3. **Betterments** – Betterments are defined as any additional feature, upgrading or change in capacity, or character of the facility from its predisaster condition. Betterments are generally not eligible for ER funding unless justified on the basis of economy, suitability and engineering feasibility, and reasonable assurance of preventing future similar damage. Betterments should be obvious and quickly justified without extensive public hearing, environmental, historical, right of way or other encumbrances. The justification must weigh the costs of the betterment against the probability of future recurring eligible damage and repair costs.

Upgrades resulting from construction of replacement facilities to current standards, as defined above, is not considered a betterment requiring further justification. However with respect to roadways, increases in capacity or a change in character of the facility would be considered betterments and are not justified for ER participation.

Betterments which have been approved in the past with proper justification include:

- Installation of riprap.
- Installation of hydraulic enhancements.
- Relocation.
- Increased waterway opening.
- Slope/bank stabilization.
- Slide stabilization.
- Dike construction.
- Raise grade of roadway.

Betterments resulting from environmental or permit requirements beyond the control of the agency are eligible for ER funds if these betterments are normally required when the agency makes repairs of a similar nature in its own work.

Minor relocations and alignment shifts are frequently advisable and are generally eligible for ER participation. However, any design changes made to avoid damage which could be expected to occur infrequently is questionable. Added features of appropriate protection must have proper support, such as slope stabilization, slope protection, and slide prevention measures wherever practicable. Slide stabilization work has been declared ineligible in problem areas where slides recur regularly. The cost of monitoring slide stabilization measures after completion of the initial stabilization is not eligible. ER participation in the initial construction does not create a continuing ER responsibility for future additional work.

Betterments which are eligible for reimbursement will be addressed, agreed to, and documented on the DDIR or approved separately by WSDOT and FHWA in response to a local agency request justifying the proposed betterment.

4. **Replacement-in-Kind** – Where extensive damage has occurred, ER funds may be used for replacement-in-kind as the proper solution but with current standard safety features. Where relocation is necessary, each case is considered carefully to determine what part of the relocation is justified for construction with ER funds.
5. **Wayside Areas** – Wayside areas include rest areas and truck weighing stations. Access and parking facilities at a wayside area can be cleared and protected as part of an ER project. Local agency and WSDOT maintenance facilities are not included.
6. **Replacement of Culverts** – Upgrading culverts to current standards must be specifically related to eligible disaster damage repair. Damaged culverts are eligible for repair in kind. Destroyed culverts are eligible for replacement to current standards. Areawide upgrading of deficient culverts on an area or route basis is not eligible.
7. **Deficient Bridges** – This includes bridges unsafe in structural condition only and does not consider waterway opening, functional obsolescence, or serviceability. A structurally deficient bridge which was not under construction or scheduled for replacement with other federal funds may be eligible. ER funds do not replace other federal funds nor will they fund permanent repairs if the bridge is scheduled for replacement. The following represent two common situations:
 - a. Bridge is damaged and is repairable. ER funds may participate in:
 - (1) Reasonable emergency work to restore travel.
 - (2) Repair of disaster damage to restore a bridge to a structurally safe condition.
 - (3) Repair of disaster damage if other funds are used to simultaneously correct the structural deficiencies (ER funds cannot be used to correct structural deficiencies).
 - b. Bridge is destroyed or repair is not feasible. ER funds may participate in:
 - (1) Reasonable emergency work to restore traffic.
 - (2) New comparable replacement structure to current standards if bridge was not scheduled for replacement.

However, inclusion of bridge replacement work in a city or local agency capital improvement plan is viewed by FHWA as prior scheduled work and, therefore, is not eligible for ER funding.
8. **Bridge Betterments** – Two common bridge betterment situations are:
 - a. Bridge is destroyed. A new comparable replacement structure would be eligible. Betterments are generally not a consideration except:
 - (1) Extensive relocation of a replacement bridge is an ineligible betterment and ER participation will normally be limited to the cost of the structure and a reasonable approach length.

(2) Replacement of a current nonnavigable structure or movable bridge with a high level navigable structure is beyond the intent of a comparable facility and is an ineligible betterment.

- b. Bridge is seriously damaged but repair is feasible. Repair-in-kind is eligible for ER funds.

Added protection features such as riprap, spur dikes, or additional channel work if justified as a betterment would be eligible (i.e., there is reasonable assurance that similar future damage would be prevented and the cost of the betterment does not unreasonably exceed anticipated future ER costs).

However, inclusion of bridge replacement work in a city or local agency capital improvement plan is viewed by FHWA as prior scheduled work and, therefore, is not eligible for ER funding.

9. **Control Features** – Stream channels outside the agency’s right of way are generally not eligible. Work involved in channel changes, hydraulic enhancements, riprap, bank protection, clearance of debris and wreckage from the channels and stream beds, and other associated permanent work is not eligible. However if the agency can establish it has jurisdiction and responsibility for the maintenance and proper operation of this section of the stream, the work may be eligible. Normally, projects associated with channel work (riprap, bank protection, etc.) that require right of way purchases and/or easements outside the right of way are not eligible. The fact the agency responsible for channel maintenance does not have funds to finance the repair and protection work is not an acceptable reason for ER fund assistance. In situations involving requests for participation in erosion control and bank protection outside the agency right of way, the following items must be verified by the agency to obtain eligibility:

- The work is directly related to protection of the highway facility.
- The work is not eligible for funds from another agency.
- No other agency has the responsibility for such work.
- The applicant agrees to accept the future maintenance of all work performed.

When work of this type is proposed, the project documents should include a letter from the local agency covering all four of the above features including acceptance of the responsibility for maintenance. Other supporting data should include copies of correspondence with the Corps of Engineers or other appropriate agency to verify that no other eligibility or responsibility exists.

- Increased bridge width or other geometric improvements and correction of nondisaster related structural or surfacing improvements such as deteriorated pilings or decks are not eligible.

10. **Protective Work** – When permanent and emergency work cost considerably less than proposed protective measures such as riprap, eligibility of protective measures is questionable. For example, if repairs consisting of replacement-in-kind cost only \$5,500 and the estimated cost to provide sufficient protection to prevent damage under similar unusual conditions is \$9,000, participation beyond that necessary for replacement-in-kind would not be economically justified.
11. **“Convenient” Damage** – To eliminate a recurring annual maintenance problem based on the occurrence of a disaster is questionable. For instance, the department proposes to replace a damaged triple box culvert and roadway fill with a bridge. This is a betterment to alleviate an annual maintenance problem which was accelerated by a disaster. ER participation in the construction cost of a bridge is limited to the amount necessary to restore the triple box culvert.
12. **Rock and Mud Slides** – The removal of rock and mud slides is eligible unless determined to be a preexisting condition. Unless justified on their own as a catastrophic failure, such a slide must be associated with the overall natural disaster and must have occurred during the event period as determined by FHWA and/or FEMA.

When an old slide has been activated during a natural disaster, its correction to provide a safe roadway is eligible. Should the agency propose to relocate a road instead of correcting the old slide, the cost of the relocation to predisaster capacity and character may be eligible if justified as a betterment.

Slide stabilization is also a betterment. ER participation must be based on detailed analysis of the slide and reasonable assurance of preventing similar future damage, showing stabilization costs do not unreasonably exceed anticipated ER costs. Such analysis must include road relocation, do nothing alternatives, and consideration of previous testing recommendations for the area.
13. **Plugged Culverts** – Cleaning out plugged culverts is an eligible activity as long as it is considered beyond heavy maintenance and is associated with other eligible damage. Replacement of plugged culverts should be considered eligible only when justified as a betterment or when cleaning is not cost effective.

Additional Examples of Emergency/Incidental Permanent/Permanent Work

Example 1

- a. The fill section of a road failed, leaving a two-lane road impassable. WSDOT Maintenance crew blocked traffic and proceeded to bring in fill material. Once the material was in place, the crew opened the road to traffic on gravel. At this point essential traffic had been restored; therefore, the emergency work was complete. Paving the surface was accomplished a month later due to other reasons. Therefore, the paving and striping is considered permanent work. The emergency work would be eligible for 100 percent ER and the permanent work would be eligible for the standard pro rata share for that highway.

- b. Same example, except the paving is immediately accomplished. Since the crew had most of the equipment already at the site while doing the fill work, it was decided that it would be more cost effective to complete the project while doing the emergency work. Even though it is more cost effective to complete the paving work along with the emergency work, paving in this case is considered permanent restoration and is therefore funded at standard pro rata share by FHWA.

Example 2

- a. A bridge washed out making the highway impassable. A temporary bridge was constructed until the main bridge was replaced. The temporary structure restores essential traffic and is therefore eligible for 100 percent ER funding. The replacement of the bridge would be permanent restoration eligible for the standard pro rata share for that highway.
- b. Same example, except due to the location, no temporary detour can be constructed. Therefore, the bridge replacement becomes incidental permanent replacement which is funded at the standard pro rata share of ER funding regardless if it is required to restore essential traffic.
- c. Same example, a detour is constructed, the old bridge is removed, and a year later a new bridge is constructed and the detour is removed. The detour construction would be emergency work at 100 percent ER funding, since it serves to restore essential traffic and prevent damage to the remaining facility. The removal of the old bridge, construction of the new bridge, and the detour removal would be permanent restoration eligible for reimbursement at the pro rata share.

Example 3

- a. A large slide covered the highway making it impassable. Due to the threat of continued activity, the department made the decision for safety reasons not to allow any work on the slide. The department constructed a detour around the slide. This detour is emergency work required to restore essential traffic and is eligible for 100 percent ER funding. The removal of the slide material is considered permanent restoration and is eligible for the standard pro rata share for that highway.
- b. Same example, except the department has determined that the slide material is too expensive to remove and due to the size of the slide would not be a safe work environment. Therefore the decision was made to make the detour alignment a permanent structure, therefore the standard pro rata share is applicable for ER funding.

Example 4

- a. A section of roadway sinks. Maintenance fills up the hole using emergency repairs and opens the road to traffic. A short time later the roadway sinks again, requiring the same fix. The roadway sinks a third time requiring the same fix. Finally, the roadway stabilizes. Because all of the work described was required to restore essential traffic and preserve the existing roadway, all of the work would be 100 percent federal funding emergency work if completed within the first 180 days.