
# Repairing and Reconstructing Disaster-Damaged Roads and Bridges: The Role of Federal-Aid Highway Assistance

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February 22, 2010

**Congressional Research Service**
7-5700
www.crs.gov
RS22268

**CRS Report for Congress**
*Prepared for Members and Committees of Congress*

# Summary

The major highways and bridges damaged during the June 2008 Midwest flooding and the 2005 Gulf of Mexico hurricanes, as well as the I-35W bridge, which collapsed in Minneapolis on August 1, 2007, are part of the federal-aid highway system and are therefore eligible for assistance under the Federal Highway Administration's (FHWA's) Emergency Relief Program (ER). Following a natural disaster or catastrophic failure (such as the I-35W bridge), ER funds are made available for both emergency repairs and restoration of federal-aid highway facilities to pre-disaster conditions.

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The major highways and bridges damaged during the June 2008 Midwest flooding and the 2005 Gulf of Mexico hurricanes, as well as the I-35W bridge, which collapsed in Minneapolis on August 1, 2007, are part of the federal-aid highway system and are therefore eligible for assistance from the Department of Transportation (DOT) through the Emergency Relief Program (ER) of the Federal Highway Administration (FHWA). For disaster-damaged roads that are not federal-aid highways, states may request reimbursement for emergency road repairs and debris removal from the Federal Emergency Management Agency (FEMA). FEMA may also allow for limited funding under its Public Assistance Program for such things as snow removal and related operating costs during extreme snowfalls, which are not eligible for ER funds.[1]

This report describes FHWA assistance for the repair and reconstruction of disaster-damaged highways and bridges or catastrophic failures (such as a bridge collapse). It begins with a brief discussion of the legislative origins of federal assistance and describes the ER program in its current form. The report then discusses eligibility issues and program operation. The report briefly describes the major findings of a recent Government Accountability Office (GAO) report on ER.

# Background

For more than 70 years, federal aid for the emergency repair and restoration of disaster-damaged roads has been available. The first legislation authorizing such use of federal funds was the Hayden-Cartwright Act of 1934 (P.L. 73-393). This act, however provided no separate funds and states subject to disasters had to divert their regularly apportioned federal highway funds from other uses to disaster repairs. The Federal-Aid Highway and Highway Revenue Act of 1956 (70 Stat 374 and 70 Stat 387) was the first act that authorized separate funds for the ER program (the program is codified 23 U.S.C. 125). From the passage of the 1956 Act through 1978, funding for the program was drawn 40% from the Treasury's general fund revenues and 60% from the highway trust fund (HTF). The HTF is supported by taxes paid by highway users. Starting in 1979 the program was funded 100% from the HTF. The ER program was reauthorized, on August 10, 2005, through FY2009 by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA) (P.L. 109-59; 119 Stat 1144). SAFETEA provided that allocations above the annual $100 million authorization could be funded from the general fund.[2] Since the end of FY2009, ER has operated under a series of authorization extensions and continuing resolutions. The CRS legislative tracking report for reauthorization of the Federal-Aid Highway programs is CRS Report R40780, *Surface Transportation Reauthorization Legislation in the 111th Congress: Summary of Selected Major Provisions*, coordinated by John W. Fischer.

[1] Federal Highway Administration, *Emergency Relief Manual (Federal-Aid Highways)*, Washington, DC, November 2009, p. 20, http://www.fhwa.dot.gov/reports/erm/er.pdf.

[2] Beginning with the December 30, 2005, enactment of the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery (P.L. 109-148), ER supplemental appropriations have been drawn from the Treasury's general fund.

# The FHWA's Emergency Relief (ER) Program

The ER program provides funds for the repair and reconstruction of roads on the federal-aid highway system that have suffered serious damage as a result of either (1) a natural disaster over a wide area, such as a flood, hurricane, tidal wave, earthquake, tornado, severe storm, or landslide; or (2) a catastrophic failure from any external cause (for example, the collapse of a bridge that is struck by a barge).[3] Historically, however, the vast majority of ER funds have gone for natural disaster repair and reconstruction.

As is true with other FHWA programs, the ER program is administered through the state departments of transportation in close coordination with FHWA's division offices (there is one in every state). Most observers see this as a strength of the program in that FHWA staff at the state level have established and ongoing relationships with their state counterparts and this facilitates a quick coordinated response to disasters.

## Funding

The ER program has an annual authorization of $100 million in contract authority to be derived from the Highway Trust fund. These funds are not subject to the obligation limitation, which means the entire $100 million is available each year. Because the costs of road repair and reconstruction in many disasters exceed the $100 million annual authorization, SAFETEA authorizes the appropriation of additional funds on a "such sums as may be necessary" basis, generally accomplished in emergency supplemental appropriations legislation.[4]

### The $100 Million Per State Cap

The ER program limits the amount that FHWA may provide under the ER program to each state for each natural disaster or catastrophic failure to $100 million. For large disasters whose costs exceed the $100 million per state cap, Congress may lift the cap legislatively.

### The Federal Share

Emergency repairs to restore essential travel, minimize the extent of damage, or protect remaining facilities, if accomplished within the first 180 days after the disaster, may be reimbursed with a 100% federal share. Permanent repair projects are reimbursed at the same federal share that would normally apply to the federal-aid highway facility. For Interstate System highways the federal share would be 90% and for most other highways the share would be 80%. Permanent repairs done during the first 180 days are also reimbursed at the pro rata share that would normally apply to the facility. The share for disaster relief for roads on federal lands is 100%. In P.L. 109-148, Congress broadened the scope of the 100% federal share to encompass all ER

[3] Federal Highway Administration, *Emergency Relief Manual (Federal-Aid Highways)*, Washington, DC, November 2009, pp. 1-76, http://www.fhwa.dot.gov/reports/erm/er.pdf.

[4] Historically, emergency supplemental ER appropriations have been drawn from the highway account of the highway trust fund (HTF). The balance in the highway account had fallen in recent years and it was unclear whether the HTF could fund a large Katrina related supplemental appropriations without constraining the ability of the HTF to fully fund SAFETEA-LU. Since December 30, 2005, supplemental ER appropriations have come from the general fund.

program expenses for repair and reconstruction projects related to the Gulf Coast hurricanes. The I-35W repair and reconstruction, authorized in P.L. 110-56, was also 100% share.

As is true with other FHWA programs, the ER is a reimbursable program. This means that a state can incur obligations, begin repairs and then submit vouchers to FHWA for reimbursement for the federal share of the project.

## Eligibility and Program Operation

The ER program divides all repair work into two categories: emergency repairs and permanent repairs. Only repairs to roads and bridges on the federal-aid highway system that have suffered damage during a declared disaster or catastrophic failure are eligible for ER assistance.[5] The intent of ER assistance is to repair and restore highway facilities to pre-disaster conditions, not to fund new construction for increased capacity or improve highway facilities or fix non-disaster deficiencies. In general, work is confined to the federal-aid highway right-of-way.

### Emergency Repairs

These are repairs made immediately following a disaster to meet the program goals to "restore essential traffic, to minimize the extent of damage, or to protect the remaining facilities."[6] State and local transportation agencies can begin these repairs immediately and prior approval from FHWA is not required. Once the FHWA Division Administrator finds that the disaster work is eligible, properly documented costs can be reimbursed retrospectively. Emergency repair work is to be accomplished within the first 180 days after the disaster and, as mentioned earlier, is reimbursed at a 100% federal share. Examples of emergency repairs are: debris removal, regrading, removal of landslides, construction of temporary road detours, erection of temporary detour bridges, and use of ferries as an interim substitute for highway or bridge service. Emergency repairs are meant to permit work to start immediately to restore essential traffic in the disaster area that cannot wait for a finding of eligibility and programming of a project. This part of the program is especially designed for speed. In the case of some disasters, state DOTs have been able to let ER funded debris removal and demolition contracts the same day of the disaster event.[7]

### Permanent Repairs

These repairs go beyond the restoration of essential traffic and are intended to restore the damaged bridges and roads to pre-disaster conditions and capabilities. Where the damaged parts of the road can be repaired to pre-disaster conditions, without replacement or reconstruction, this is done. Where a road needs to be replaced, ER funding is limited to the costs of building a roadway designed to current standards and of comparable capacity. ER funds may be used for

[5] A Governor may declare an emergency proclamation and the FHWA Division Administrator may then concur that a disaster occurred and substantial damage has occurred to the federal-aid highway system roads over a wide area or that the criteria for a catastrophic failure were met and that the damage is eligible under 23 U.S.C. 125. When the President has issued a major disaster declaration the Division Administrator's concurrence is not necessary.

[6] FHWA. *Emergency Relief Manual*.

[7] A good example of this is the Northridge Earthquake. See *Effects of Catastrophic Events on Transportation System Management and Operations*, Washington, FHWA, 2004, 37-45.

temporary or permanent repair of a repairable bridge but permanent repairs may not be funded if the bridge is scheduled for replacement. If a bridge is destroyed or repair is not feasible then ER funds may participate in building a new comparable bridge to current design standards and to accommodate traffic volume projected over its design life. In some cases "betterments" (added protective features, added lanes, added access control, etc.) may be eligible, but they must be shown to be economically justified based on a cost/benefit analysis of the future savings in recurring repair costs.

Permanent repair and reconstruction contracts, not done as emergency repairs, must meet competitive bidding requirements. A number of techniques are available to accelerate projects, including design-build contracting, abbreviated plans, shortened advertisement period for bids, and the cost-plus-time (A+B) bidding[8] that includes monetary incentive/disincentive clauses designed to encourage contractors to complete projects ahead of time. For example, the repair contract for repair of the I-10 Twin Spans Bridge between Slidell and New Orleans, Louisiana, that was awarded Friday September 9, 2005, included incentives for early completion. Two-way traffic on two lanes opened on October 14, 2005, 16 days ahead of schedule and four-lane traffic opened January 6, 2006, nine days ahead of schedule. The contract for the replacement bridge for the collapsed I-35W bridge in Minneapolis also used incentives for early completion. The bridge was built in 11 months and was completed three months ahead of schedule.[9]

Contracts supported by ER funding must meet all contract provisions as required by 23 CFR Part 633A. Davis-Bacon wage rate requirements apply to all ER contracts.[10] ER funded contracts must abide by Disadvantaged Business Enterprises (DBE) requirements, American With Disability Act (ADA) requirements, "buy America" regulations, and prohibitions against the use of convict labor (23 U.S.C. 114).[11]

Repair projects funded under the ER program are subject to the requirement of the National Environmental Policy Act (NEPA) of 1969. The impact, however, is generally limited since emergency repairs are normally classified as categorical exclusions under 23 CFR771.117 (c)(9) as are projects to permanently restore an existing facility "in-kind" to its pre-disaster condition. Betterments may, in some cases, require NEPA review.[12]

[8] Cost-plus-time bidding (A+B method) includes two components. The A component is the traditional bid for all work to be performed. The B component is a bid of the total number of calendar days required to complete the project. The contract includes a disincentive for overrunning the time bid and an incentive for earlier completion.

[9] Minnesota Department of Transportation, *Interstate 35W Bridge in Minneapolis*, Saint Paul, MN, http://www.dot.state.mn.us/i35wbridge/index.html.

[10] The Davis-Bacon requirements can be suspended by executive order (ref. 40 U.S.C. 276a-5). President Bush did this in response to Katrina. He reimposed the requirements November 8, 2005.

[11] A state may request a waiver of the buy America requirements from FHWA based on a public interest rationale under 23 CFR 635.4109(c)(1)(i).

[12] CRS Report RL33104, *NEPA and Hurricane Response, Recovery, and Rebuilding Efforts*, by Linda Luther.

# ER Funding Sustainability

In February 2007, GAO released a report on the ER program that expressed concerns on the growing budgetary implications of ER spending.[13] The report points out that because of the constrained outlook for the highway trust fund, the ER program is now mostly funded with general fund revenues at a time when the

> nation faces a pending fiscal crisis, raising concerns about future use of the general fund and the financial sustainability of the ER program ... ER funds are not intended to replace other federal-aid, state, or local funds to increase capacity, correct nondisaster-related deficiencies, or make other improvements. However, contributing to future financial sustainability concerns is the fact that the scope of eligible activities funded by the ER program has expanded in recent years with congressional or FHWA waivers of eligibility criteria or changes in definitions. As a result, some projects have been funded that go beyond repairing or restoring highways to pre-disaster conditions ... [such as] projects that grew in scope and cost to address environmental and community concerns.... Congress has also directed that in some cases the program fully fund projects rather than requiring a state match.

The report also noted that the $100 million annual authorization is so low, that since 1990, 86% of ER program funds have been made available though supplemental appropriations. This situation has led to project backlogs that force states to delay reconstruction or use other highway dollars as they await the funds provided through the supplemental appropriations process.

# 2008 Midwest Flooding ER Funding

Federal-aid highways damaged by the June 2008 Midwest flooding are eligible for ER funding. On June 25, 2008, Secretary Mary Peters announced that $1 million of "quick release" funding was being made available for to help pay for urgent road and bridge repairs in Iowa. On July 11, 2008, $1 million was released to Wisconsin also. These urgent repairs are those needed to help restore essential traffic. As part of the October 23, 2008, distribution of supplemental emergency relief funds Illinois ($13,900,995), Indiana ($10,420,012), Iowa ($22,307,498; $155,992), Michigan ($2,400,000), Missouri ($1,788,475), South Dakota ($720,000), and Wisconsin ($20,000,000), received funds for flood damage recovery. The July 6, 2009, nationwide allocation, discussed later in this report, provided additional allocations of $400,000 for Indiana and $2,870,218 for Iowa.

[13] U.S. Government Accountability Office, *Highway Emergency Relief: Reexamination Needed to Address Fiscal Imbalance and Long-term Sustainability*, GAO-07-245, February 2007, pp. 1-60, http://www.gao.gov/new.items/d07245.pdf.

# 2005 Gulf Coast Hurricane ER Funding

As of this writing, FHWA has received a total of $2.876 billion in ER program funding requests and had allocated an equal amount for the repair and reconstruction of the damage to federal-aid highways caused by hurricanes Katrina, Rita, and Wilma. **Table 1** presents the allocations of ER funding.

**Table 1. ER Fund Allocations (2005 Hurricanes—Through July 6, 2009)**

| Item | Date | Amount Allocated ($) |
|---|---|---|
| Mississippi - Katrina | September 13, 2005 | 5,000,000 |
| Louisiana - Katrina | September 14, 2005 | 5,000,000 |
| Mississippi - Katrina | November 30, 2005 | 20,000,000 |
| Louisiana - Katrina | November 30, 2005 | 20,000,000 |
| Louisiana - Katrina | January 19, 2006 | 75,000,000 |
| Florida - Katrina | January 20, 2006 | 42,843,797 |
| Mississippi - Katrina | January 20, 2006 | 740,000,000 |
| Texas - Rita | January 20, 2006 | 11,000,000 |
| Louisiana - Katrina and Rita | February 1, 2006 | 863,001,488 |
| Mississippi - Katrina | March 6, 2006 | 248,000,000 |
| Alabama - Katrina | March 28, 2006 | 17,577,720 |
| Florida - Rita | March 28, 2006 | 2,331,245 |
| Florida - Wilma | March 28, 2006 | 478,000,000 |
| Louisiana - Katrina and Rita | April 21, 2006 | 52,552,159 |
| Louisiana - Katrina | July 13, 2006 | 174,000,000 |
| Texas - Rita | October 23, 2006 | 25,994,607 |
| Alabama - Katrina | July 24, 2007 | 9,800,000 |
| Mississippi - Katrina | September 4, 2007 | 19,698,984 |
| Mississippi - Katrina | September 4, 2007 | 301,016 |
| Louisiana - Katrina | November 5, 2007 | 18,532,349 |
| Louisiana – Katrina | October 23, 2008 | 3,025,475 |
| Mississippi – Katrina | October 23, 2008 | 19,200,000 |
| Texas – Rita | October 23, 2008 | 3,460,240 |
| Mississippi – Katrina | November 5, 2008 | 4,800,000 |
| Mississippi – Katrina | July 6, 2009 | 17,000,000 |
| **Total** | | 2,876,119,080 |

**Source:** FHWA.

# I-35W Minneapolis Bridge ER Funding

**Table 2**, below, sets forth the allocation of ER funds for the reconstruction of the I-35W bridge, as of March 31, 2008.[14] As of this writing, the amount provided (allocated) equals the amount requested by the state of Minnesota.

**Table 2. ER Funding for the I-35W Bridge Collapse**

| Funding Requests and Allocations | Amount |
|---|---|
| **Total Formal Request for ER Funds** | **$371,700,000** |
| "Quick Release" Allocation of August 2, 2007 | $5,000,000 |
| "Quick Release" Allocation of August 9, 2007 | $50,000,000 |
| Allocation of FY2008 ER funds on November 5, 2007 | $123,482,833 |
| Allocation of (P.L. 110-161) appropriation on March 5, 2008 | $195,000,000 |
| **Total ER Funding for I-35W Bridge** | **$371,700,000** |

**Source:** DOT/FHWA.

**Note:** Simultaneously with the allocation of March 5, 2008, there was a withdrawal of $1,782,833 of previously allocated ER funds drawn from the annual ER authorization (i.e., which were not specifically appropriated for the I-35W bridge, as was the March 5 allocation, which was allocated in full).

# FY2009 Nationwide ER Allocations

On October 23, 2008, the DOT made available $679 million to states across the nation to pay for costs to repair roads and bridges damaged by natural emergencies and catastrophic events. The funds were made available as part of the Disaster Relief and Recovery Supplemental Appropriations Act of 2008 (P.L. 110-329).[15] On July 6, 2009, DOT announced the allocation of an additional $201,490,146 to repair roads and bridges damaged by a variety of national emergencies and catastrophic events.[16]

[14] See also CRS Report RL34127, *Highway Bridges: Conditions and the Federal/State Role*, by Robert S. Kirk and William J. Mallett.

[15] Department of Transportation, Federal Highway Administration, *U.S. Secretary of Transportation Announces $679 Million to Repair Damaged Roads and Bridges*, Press Release, Washington, DC, October 23, 2008.

[16] Department of Transportation, *U.S. Secretary of Transportation Announces More Than $201 Million to Repair Damaged Roads and Bridges*, Press Release, Washington, DC, July 6, 2009, http://www.fhwa.dot.gov/pressroom/fhwa0920.htm.

# Recent "Quick Release" ER Allocations[17]

- $2 million on January 9, 2009, to the State of Washington for the January 2009 flooding.
- $2 million on May 18, 2009, to the State of West Virginia for the May 2009 flooding.
- $1 million on September 28, 2009, to the State of Georgia for the September 2009 flooding.
- $1 million on October 20, 2009, to the State of Washington for the October 11, 2009, landslide on State Route 410.

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[17] The *Emergency Relief Manual* describes the "quick release" method for developing and processing a state request for ER funding as a method which "employs a process to immediately deliver ER assistance for large disasters very quickly. The quick release method should not be used as a matter of routine and is intended to provide a 'down payment' on overall ER needs immediately following a large scale disaster."