



## **CRS Report for Congress**

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

Robert S. Kirk  
Specialist in Transportation Policy  
Resources, Science, and Industry Division

### **Summary**

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

The I-35W bridge in Minneapolis, MN, which collapsed on August 1, 2007, as well as, most of the major highways in the 2005 Gulf of Mexico hurricanes disaster area, 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).

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. Finally, the report briefly describes the major findings of a recent Government Accountability Office 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 2009 by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU) (P.L. 109-59; 119 Stat 1144). SAFETEA-LU provided that allocations above the annual \$100 million authorization could be funded from the 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).<sup>1</sup> 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-LU authorizes the appropriation of additional funds on a "such sums as may be necessary" basis, generally accomplished in emergency supplemental appropriations legislation.<sup>2</sup>

**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. For the I-35W bridge collapse, this limitation was waived in P.L. 110-56.

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<sup>1</sup> See U.S. Federal Highway Administration, *Emergency Relief Manual* (Washington, FHWA, 2003), 75. See also FHWA, *A Guide to Federal-Aid Programs and Projects*, 1999, 86-88.

<sup>2</sup> Historically, emergency supplemental ER appropriations have been drawn from the highway account of the highway trust fund (HTF). The balance in the highway account has 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.

**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 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, would also be 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.<sup>3</sup> 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.”<sup>4</sup> 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.<sup>5</sup>

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<sup>3</sup> 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.

<sup>4</sup> FHWA. *Emergency Relief Manual*.

<sup>5</sup> 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.

**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 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<sup>6</sup> 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.

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.<sup>7</sup> 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).<sup>8</sup>

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 CFR 771.117 (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.<sup>9</sup>

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<sup>6</sup> 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.

<sup>7</sup> 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.

<sup>8</sup> 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).

<sup>9</sup> See CRS Report RL33104. *NEPA and Hurricane Response, Recovery, and Rebuilding Efforts*, by Linda Luther.

## ER Funding Sustainability

In February 2007, the Government Accountability Office (GAO) released a report on the ER program that expressed concerns on the growing budgetary implications of ER spending.<sup>10</sup> 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 through 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.

## 2005 Gulf Coast Hurricane ER Funding

As of March 31, 2008, FHWA had received a total of \$2.829 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.

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<sup>10</sup> Government Accountability Office, *Highway Emergency Relief: Reexamination Needed to Address Fiscal Imbalance and Long-Term Sustainability*, GAO-07-245, 60p.

**Table 1. ER Fund Allocations (2005 Hurricanes as of 3/31/08)**

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
<b>Total</b>		<b>2,828,633,365</b>

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.<sup>11</sup> 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
<b>Total Formal Request for ER Funds</b>	<b>\$371,700,000</b>
“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
<b>Total ER Funding for I-35W Bridge</b>	<b>\$371,700,000</b>

Source: DOT/FHWA.

**Note:** Simultaneously with the allocation of the 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).

<sup>11</sup> See also CRS Report RL34127, *Highway Bridges: Conditions and the Federal/State Role*, by Robert S. Kirk and William J. Mallett.