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Who should pay to protect New Orleans?

It's a federal tab because big changes upriver destroyed the Big Easy's storm buffer.
By John M. Barry

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Despite the hundreds of thousands of words written about Hurricane Katrina, fundamental misunderstandings about Louisiana's vulnerability to hurricanes continue to cloud the policy debate. It is important to clear up those misunderstandings as Congress considers an emergency appropriations bill that *should* include federal money to complete protection for New Orleans against a "100-year storm," and because it will soon also face multibillion-dollar long-term costs to protect Louisiana from even larger storms.

These costs are a federal responsibility because benefits to the entire nation, including massive engineering projects built in, and providing direct benefit to, states as far away as North Dakota, have in the last 60 years transformed New Orleans from a city reasonably safe from hurricanes to one dangerously vulnerable to them. These projects have had an effect as great as sending saboteurs from 1,500 miles away to dynamite Louisiana's levees.

That analogy may sound like an overstatement, but it may be an understatement. To understand the link between the High Plains and Louisiana, one has to understand the Mississippi River system -- which stretches from New York to Idaho and drains 31 states -- and the sediment load the system carries. This sediment load was so great that it changed the nation's geography. Sixty million years ago, the ocean reached north to Cape Girardeau, Mo., but as the sea level fell, the river dropped enough mud into what geologists call the Mississippi Embayment to create all the land from Cape Girardeau to the sea, a total of 35,000 square miles in seven states.

That land-building process created Louisiana's coast, along with barrier islands that provided a buffer protecting populated areas in Louisiana and part of Mississippi's coast.

Human engineering has reversed that process, causing the loss of roughly 2,000 square miles of land since World War II. If this buffer -- equivalent to the state of Delaware -- had not been destroyed, New Orleans would need little other hurricane protection.

Numerous man-made actions have caused the land loss, but the most important, yet least recognized, may be the decline of sediment in the river. Dams built to provide electricity, irrigation and flood protection in the Upper Midwest and High Plains are largely responsible for the decline; sediment level is now only 30% to 40% of the natural amount. A particular problem has been a series of dams on the upper Missouri River beginning above Bismarck, N.D., and ending above Yankton, S.D. Historically, roughly half of the total sediment load in the Mississippi River came from the upper Missouri, but the dams trapped that sediment upstream. According to the U.S. Geological Survey, since the dams' construction in the 1950s, "the discharge of sediment from the upper Missouri River basin virtually was stopped."

Without this sediment, Louisiana began losing land. Other contributors to the land loss include energy production. About 30% of the nation's domestic oil and gas production comes from Louisiana, which has benefited the entire country. But the industry dredged 10,000 miles of canals through Louisiana's marsh, bringing in saltwater, which killed it. Another factor is the manipulation of sediment for shipping; this too has benefited the national economy by turning cities such as Tulsa and Pittsburgh into ports with direct access to the ocean.

The Gulf Intracoastal Waterway, which stretches more than 1,200 miles, also has had an effect. Conceived before World War II largely to protect shipping from German submarines, it too has damaged Louisiana's marsh by bringing in saltwater. (The waterway also played a very direct role in Katrina's damage, conveying storm surge into the heart of New Orleans at the Industrial Canal. Levee breaks there and along the Gulf waterway devastated an area that would have remained dry had the waterway not existed.)

Although the energy and shipping industries primarily benefit the entire country, Louisiana does gain economically -- as it does from levees -- so one could argue the state has made a devil's bargain. Yet the dams and reservoirs that provide important benefits -- ironically including flood protection -- to states from the Upper Midwest to the High Plains enormously increase the danger to New Orleans, coastal Louisiana and part of Mississippi, but give nothing to them.

The Bush administration, instead of recognizing that hurricane protection for Louisiana is an urgent national problem, is treating this protection as if it were a routine local economic development project. In addition to opposing putting any money for Louisiana in the supplemental appropriation bill, the administration wants Louisiana to pay proportionately the same share of the costs for protection from a 100-year hurricane that local governments pay to build, say, a canal lock.

This is bad policy on two counts. First, failure to put the money into the bill will delay protection for at least two hurricane seasons. New Orleans needs this protection sooner rather than later. Second, the administration wants Louisiana to pay $1.8 billion as its share of the costs. To a region struggling to recover, this is a crippling burden, especially because it comes on top of the $500 million that Louisiana has allotted to such protection this year and next, and a state constitutional amendment that has dedicated *all* future tax revenues from offshore energy production, estimated at more than $650 million a year, to coastal restoration and protection.

So far, policymakers have not seen the problem as a whole, and they largely perceive federal assistance as generosity. That's the wrong way of looking at it. Given that benefits to states throughout the Mississippi Valley actually created the problem, federal funding is not generosity. It's equity.

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