

The Distribution of Shore Protection Benefits  
Draft Army Corps of Engineers Report, November 2001  
Comments of the Office of Management and Budget

Basic Assumptions

The analysis of the hypothetical scenario in the draft report relies upon two key assumptions that lead to a substantial understatement of the benefits that accrue locally:

It uses an inappropriate measure -- the place of principal residence of the people who own local property or who use the beach -- to allocate the benefits of a project to the "beach region" (local) or to the "rest of the nation" (national). The issue here is not who benefits, but whether the way in which the benefits accrue enable the State or local authorities to support a non-Federal cost-share. That depends largely upon where the benefits will occur, not on where the people who receive the benefits reside most of the year.

Although the report views some national and some regional economic development benefits as local, it limits the local area to the county or counties in which the shore protection project physically is located. Coastal States typically pay much of the non-Federal costs of these projects, e.g., between 50 percent and 100 percent in the five States that the Corps surveyed. Therefore, we believe the report should have viewed as local all benefits that flow to any resident or business in the State or should have attempted, at a minimum, to estimate the benefits that accrue in-State beyond the county line. Instead, it simply includes them on the national side of the ledger.

Storm Damage Reduction

All storm damage reduction effects redound to the benefit of the local community. By reducing damages to structures and their contents and to local infrastructure, a shore protection project raises local property values compared to the "without project" condition. Since real property is a fixed asset, most of this added value remains within the reach of local authorities and augments their ability to contribute towards the project's construction costs, for example, through property or occupancy taxes. It does not matter that some property owners may reside elsewhere. The project reduces storm damages only locally; for those who live elsewhere, it reduces damages to their second home, rental property, or business; its contents; and the surrounding land.

Recreation

Shore protection projects that support recreation can add significantly to the ability of the State and local sponsor to contribute to the costs of construction. The analysis of the

hypothetical scenario in the report underestimates these local benefits in several ways:

In limiting the beach region to the county, the report understates the local component of the regional economic development benefits. The people who travel farther to reach the beach are more likely to stay overnight nearby in a hotel or rental unit and to spend money when they get there. Their beach-trip spending beyond the county line is likely to occur mostly in-State, but the report allocates the associated benefits to the "rest of the nation."

Although spending by foreign tourists in the coastal State is new spending from a national perspective, the added value that it contributes to the national economy primarily benefits the local coastal community and the State.

The intangible, subjective value of the beach experience generally exceeds the financial costs that beach users incur. For beach users who live within the State either part-time or full-time, all of this consumer surplus is local.

The State or local authorities can access only a part of this consumer surplus via a user fee without significantly affecting overall tourist spending. Since the amount that they could so collect from out-of-State and foreign visitors is potentially available to help pay for the project, it is a local benefit as well.

The report treats the Federal tax revenue from spending in the beach region as a benefit that occurs outside the beach region. However, the net effect of a project on Treasury receipts probably is insignificant. In the absence of the project, it is likely that: (1) spending by recreation users (perhaps elsewhere) would generate a similar level of tax revenue; and (2) the alternative Federal investment (same amount spent elsewhere) would produce a comparable level of tax revenue.

### Public Finance Capabilities

The draft report does not sufficiently explore a complex question that is central to determining an appropriate non-Federal cost-share. To what extent will the predicted benefits of a shore protection project occur within the reach of local or State authorities and therefore potentially be available to support a non-Federal cost-share?

The draft report assumes that local authorities can support a portion of the project's costs only through belt tightening or by developing an additional source of recreation-based revenue. However, a shore protection project chiefly benefits homes and businesses in the local coastal community. By preserving existing property value and facilitating further coastal development in that community, a project in effect augments the long-term local tax base. The draft report did not examine the extent to which this effect of a project on private property values, under a range of property tax rates that now prevail, contributes to the

revenues that coastal communities now are collecting.

The report also should have examined the option of charging existing users of the beach a fee or a higher fee. It focuses only on the ability of local authorities to raise additional funds from new visitors or a sales tax increase.

In calculating the fiscal capability of State and local interests, the report also makes two significant computational errors:

It does not represent the stream of payments properly. Beach replenishment occurs periodically over a project's lifetime. The report assumes the local sponsor would issue a bond at the outset of a project that is large enough to pay all future costs up front, years and decades before much of the work actually will occur.

It also overestimates the up-front sum that non-Federal interests would need to borrow when it multiplies average annual costs by 50. The amount that a local sponsor would borrow is equivalent to the principal of the loan; average annual costs include both the principal and a substantial interest component.

### Environmental Impacts

According to the draft report, shore protection projects can benefit species that use the beach such as shorebirds, but cause short-term damage to habitat in the marine subtidal zone. The draft report does not try to assess the relevance, if any, of these benefits to possible changes to the cost-sharing formula.

Project opponents claim that shore protection projects also can lead to more serious long-term impacts, e.g., to fishery habitat areas of particular concern, near estuaries, and in shallow areas that are less subject to littoral drift such as a bay. By facilitating the further development of certain coastal communities and adjacent areas, projects may have other adverse environmental impacts as well. Since the early 1970s, the Corps has recommended dozens of projects that involve periodic beach replenishment, covering major stretches of the New Jersey, Florida, and North Carolina coastlines and significant segments in a few other States. It is involved in a multi-year effort to monitor the biological impact of six projects in New Jersey, but has not examined the cumulative environmental impacts of: (1) the Corps program as a whole; (2) the many other such projects that local authorities and States now fund on their own; and (3) related Federal disaster relief and Federal flood insurance efforts that affect coastal development. The draft report does not address such concerns.