Responses to OCE Recommended Approaches
Section 116(k) Benefits Study

Background:

The approaches addressed below deal primarily with alternative methodologies for developing estimates of enhancement benefits. Although estimates of enhancement benefits were included in the original analyses of the Chalmette Area feature of the project, they only represented approximately 7 percent of the total benefits. The enhancement benefits were expected to occur in the area bounded by the existing Chalmette back levee (along Florida Canal and Forty Arpent Canal), the embankment of the Southern Railway, and the Chalmette levee along the MR-GO. The 5,000 acres west of Paris Road were expected to develop rapidly on completion of the Gulf Outlet. Development of the remaining 13,830 acres was more remote. Of the 5,000 acres expected to develop rapidly, most are located in Orleans Parish. The local sponsor for the portion of the project in Orleans Parish fully expects to receive all benefits to accrue to the project. Enhancement benefits were expected to be achieved 15 years after the completion of the Chalmette Area feature. Beneficial completion of the project was not achieved until May 1988.

The construction of the Chalmette Area feature did not totally eliminate tidal flooding in the area between the back levee and the Corps project levee. The 100-year stages in this area (from the National Flood Insurance Program FIRM maps) are approximately six feet NGVD compared to ground elevations of 1 to 2 feet NGVD.

1. Establish that development will or will not actually take place in the Chalmette area using the history of and current policy regarding filling of wetlands in the New Orleans metropolitan area for urban development.

Response:

Development has and will continue to take place in the Chalmette area. Based on census data, residential development within the area protected by the back levee has occurred at a rate higher than projected in the original report. Within the area originally claimed for enhancement, it is nearly impossible to determine to what extent development will or will not occur as a function of wetlands restrictions alone. The Department of the Army (DOA) permit process is very site and activity specific. Additionally, there have been very few applications for projects within or outside of the hurricane protection levees. Since completion of the original analyses several other factors, such as initiation of the flood insurance program, the severe downturn in the local economy, and the St. Bernard Parish coastal zone management plan, have acted as substantial impediments to development of the area.

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The general nature of the land in St. Bernard Parish has not changed with completion the project. The lands located between the local "back" levee along the Florida Canal and Forty Arpent Canal and the Federal hurricane protection levee located along the MR-GO have always been wetlands. Much of the other area within the project levees is subject to the Department of the Army (DOA) permitting requirements and wetlands development restrictions. There are, however, no absolutely undevelopable lands relative to the DOA permit process. Based on the few applications for permits and the St. Bernard Coastal Zone Management Plan, which encourages wetland preservation, one can easily conclude that there is little interest in, or likelihood of, developing a large portion of St. Bernard Parish. (See para 1, page 12).

2. *For developable land within the Chalmette area which had been protected by local levees and which now presumably has a greater degree of protection due to the project levees, determine the growth and change in land values that have occurred. Wetlands development restrictions will likely have made such lands more valuable than they would have been in the absence of land restrictions.*

Response:

Changes in land value are not purely a function of flood risk. From knowledge of the area and in checking land values in the area, the greater degree of protection provided by project levees has not had any practicably measurable effect on land values. This effect is not measurable because of the numerous other factors, such as wetlands restrictions, the flood insurance program, and the downturn in the local economy, that have affected growth rates and land values over time and in varying degrees with respect to particular parcels of land. Most of the lands protected by the existing back levee (local levee) are also subject to wetlands restrictions and the rest of these effects. During the past 8-10 years, several subdivisions have been developed in the area protected by local levees. These probably would have been developed whether or not the project levees were built, as has happened in many other areas in the New Orleans MSA that developed in spite a significant flood risk. We do not believe that wetlands restrictions played any significant part in the development of these subdivisions or in the value of this land.

3. *For lands which are found to be undevelopable in the long run, compare values of protected versus unprotected lands as of the time of authorization. Estimate benefits lost to the sponsor as tax revenues foregone less the costs of infrastructure development and costs of provision of public service.*

Response:

As stated, there are no "undevelopable" lands relative to the DOA permit process. Decisions are made on a case-by-case basis -- site and activity (project) specific. However, the lands not protected by the existing back levee are presumably less likely to be developed than was assumed in the earlier analyses due to wetlands restrictions, the flood insurance program, etc. The flood insurance program in particular has burdened development of these lands because of the high costs mandated for flood-proofing and land filling. Local interests recognize that it is very expensive to develop these lands and to provide the support services that are required for such development. It is virtually impossible to meaningfully assess just how much of a tax base ought to have developed in the area, what the cost of infrastructure would have been, or what net revenues the parish would have realized. Also, note again the recent beneficial completion date, 1988.

4. Estimate the change in value of wetlands from the time of authorization until the present. Land values may have increased despite development restrictions.

Response:

In the original analysis, it was assumed that upon completion of the project construction of drainage improvements and development of lands for residential, commercial, and industrial use in the area where enhancements would occur would be accomplished by local governments and private interests. Real estate appraisers estimated the December 1961 value of these lands, consisting of marshland, swampland, and open land, ranged from $50 to $750 an acre depending on accessibility to developed areas and transportation, and enhanced values ranged from $200 to $3,000 an acre. Due to the proximity of this area to the city of New Orleans and the MR-GO, it was assumed that the sale of these lands to developers would be accomplished in 15 years. Corps of Engineers real estate appraisers currently estimate that land values have increased by about three-fold, uncorrected for inflation. While in most cases it is of limited usefulness to apply overall price level changes to particular parcels of land for which project-specific earning potential is the real measure of value over time, one could observe that in general the above land values have, at best, barely managed to keep pace with inflation.

We also looked at marshland specifically, since this is the wetland category that predominates in the area. This type of land at the time of project authorization generally sold for $50-$75 per acre, depending upon mineral activity in the locale. This type of land now sells from $150 to $275 per acre depending on mineral potential. One recent, isolated sale in the area where

enhancements were projected to occur averaged $5,000 per acre. In general, the rate of growth of marshland value has been faster than inflation but slower than projected in the original documents.