DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
108 ARMY PENTAGON
WASHINGTON DC 20310-0108

20 SEP 2000

REPLY TO
ATTENTION OF

MEMORANDUM FOR THE DEPUTY COMMANDER FOR CIVIL WORKS

SUBJECT: Mississippi River - Gulf Outlet, Evaluation Report on Inner Harbor Navigation Canal Lock Replacement

This responds to your request for approval of Supplement Number 1 to the subject report. I concur in your findings regarding cost sharing as presented in the revised Supplement Number 1, dated September 20, 2000. Supplement Number 1 is approved.

Joseph W. Westphal
Assistant Secretary of the Army
(Civil Works)

MISSISSIPPI RIVER - GULF OUTLET NEW LOCK AND CONNECTING CHANNELS (INNER HARBOR NAVIGATION CANAL LOCK REPLACEMENT)

EVALUATION REPORT SUPPLEMENT NO. 1 (September 20, 2000)

PURPOSE

The purpose of this supplemental report is to present the justification and rationale for determining the appropriate cost sharing requirements for the Inner Harbor Navigation Canal Lock Replacement Project, formerly entitled "MRGO New Lock and Connecting Channels."

PREVIOUS EVALUATION REPORT

The March 1997 Evaluation Report, approved by HQUSACE in February 1998, contained a recommendation for a deep-draft replacement for the Inner Harbor Navigation Canal Lock. The size of the recommended lock was 110 feet wide by 1200 feet long by 36 feet deep. The new replacement lock will be constructed at a site north of Claiborne Avenue using prefabricated, floated-in construction methods.

The cost sharing requirements in the 1997 Evaluation Report were based on the premise that the Federal Government and the Inland Waterway Trust Fund would assume the cost of the National Economic Development (NED) Plan and a willing non-Federal partner would assume the incremental costs over the NED Plan. The economic analyses performed for the Evaluation Report determined that the NED Plan was a shallow draft lock. The size of that lock was 110 feet wide by 900 feet long by 22 feet deep. Since the incremental NED benefits between the deep and shallow draft locks were insufficient to offset the incremental costs of the deep draft lock, Federal policy is that the additional costs over the NED Plan become a non-Federal cost.

The deep draft lock is widely supported over a shallow draft lock. The Board of Commissioners of the Port of New Orleans stated that they would agree to be solely responsible for the cost of the construction, operation, maintenance, repair, rehabilitation and replacement of the deep draft increment. The deep-draft lock was recommended in the 1997 Evaluation Report because it was strongly supported, provided more shallow draft benefits than the NED Plan as well as deep draft benefits, and produced many secondary benefits to the regional and local economy.

In the report, the NED Plan was estimated to cost \$463,100,000. Approximately \$23,000,000 in utility relocations had been determined to be non-compensable and therefore would be paid for by the utility owners. Of the remaining \$440,100,000, 50%, or $220,050,000, would come from Federal appropriated funds and the other 50% would come from the Inland Waterway Trust Fund. The replacement (recommended and locally preferred) plan was estimated to cost $531,400,000, or an increase of $68,300,000 over the NED Plan. This incremental cost would be borne by the Port of New Orleans under the provisions of the 1997 Evaluation Report.

The Port of New Orleans owns most of the real estate interests required for the project. The rights-of-way requirements are identical under both the NED and locally preferred plan. The Federal government would be responsible for acquiring the rights-of-way as part of the NED Plan. The Corps of Engineers in the 1997 Evaluation Report agreed that the Port of New Orleans could provide its real estate interests as an "in lieu of cash" contribution towards its required share of the locally preferred replacement plan.

The 1997 Evaluation Report, in the Syllabus in the front of Volume 1, contained a statement that "...The Port of New Orleans owns the real estate required for this project and will be given credit[1] for these lands, presently estimated at $45,200,000, towards their requirement for this project." Using the $45.2 million figure cited in Volume 1 of the Report, the Port's required cash contribution toward the deep draft increment would have been $23.1 million. The Port has stated that it used that figure to prepare their financial plan to support this project. Unfortunately, that statement in the Syllabus was in error. The Report, when read in its entirety, makes it clear the figure set forth in the Syllabus is in error. The Real Estate appendix to the Evaluation Report, Volume 8, did have the correct numbers and showed that the $45.2 million figure represented a gross appraisal of the fair market value of the <u>entire</u> real estate interests to be acquired for the project. That figure included a gross appraisal of the fair market value attributable to the real estate interests of the Coast Guard and other businesses along the existing IHNC, and other landowners, as well as administrative costs and a 25% contingency. The Port of New Orleans would not have been entitled to include the fair market value of these real estate interests in the calculation of its "in lieu of cash" contribution towards the cost of the deep draft increment of the replacement plan. Rather, the gross appraisal of the fair market value of the Port's real estate interests amounted to approximately $25 million, which meant that in 1997 the Corps anticipated that the Port of New Orleans would have to make an estimated cash payment of $43.3 million for the balance of the incremental cost between the shallow draft and deep draft plans.

Due to the physical deterioration and discontinued use of the Galvez St. Wharf, the value of the real estate interests owned by the Port of New Orleans is presently estimated to be $16.73 million. The Port of New Orleans has agreed to accept $16.73 million for their real estate interests upon approval of this supplemental report.

[1] Although the Report used the word "credit", it is understood and agreed that the Port's provision of its real estate interests would constitute an "in lieu of cash" contribution towards its share.

PROJECT AUTHORIZATION

The original cost-sharing premise in the 1997 Evaluation Report was based on a willing and capable non-Federal governmental entity contributing all of the costs in excess of the NED Plan costs. This analysis did not take into account the specific statutes authorizing this project which envisioned that the lock would be replaced in-kind by another deep draft lock, and that the costs of that project would be allocated between inland and general cargo (deep draft) navigation based on use.

The replacement of the existing lock was authorized by the River and Harbor Act of March 29, 1956 (Public Law 455 of the Eighty-fourth Congress, 70 Stat. 65). This statute states that: "Provided that when economically justified by obsolescence of the existing lock or by increased traffic, replacement of the existing lock or an additional lock with suitable connections is hereby approved to be constructed in the vicinity of Meraux, Louisiana, with type, dimensions, and cost estimates to be approved by the Chief of Engineers."

In addition, Section 844 of the Water Resources Development Act (WRDA) of 1986 (Public law 662, 99th Congress) modified the 1956 authorization to "provide that the replacement and expansion of the existing industrial lock and connecting channels or construction of an additional lock and connecting channel shall be in the area of the existing lock or at the Violet site, at a cost of $714,000,000." Section 844 further specifies that "the cost of such modifications shall be allocated between general cargo navigation and inland navigation based on use patterns determined by the Secretary. Of the costs allocated to inland navigation, one-half of the Federal costs shall be paid from the Inland Waterway Trust Fund and one-half of the Federal costs shall be paid from the General Fund of the Treasury. With respect to the costs allocated to general cargo navigation, cost sharing provided in section 101 shall apply."

Based on a review of both the 1956 and 1986 authorizations it has been determined that the Congress authorized a deep-draft replacement lock – one serving both general cargo navigation and inland navigation needs.

As previously mentioned, the original authorization for this project, the 1956 River and Harbor Act, Public Law 455, called for a replacement of the existing lock when economically justified by obsolescence of the existing lock or by increased traffic. The replacement lock had an overall benefit cost ratio of 1.75 to 1 in the Evaluation Report (2.2 to 1 at present price levels). Since the existing lock is considered a deep-draft lock, it is clear that in enacting this law, Congress intended a replacement in kind, i.e., that the existing lock be replaced with another deep-draft lock.. Section 844 of WRDA 1986 specified the cost sharing for the replacement lock. Under this statute, costs allocated to inland navigation will be cost shared in accordance with Sections 102 and 844 of WRDA 1986, while costs allocated to general cargo navigation will be cost shared in accordance with the requirements in Section 101 of WRDA 1986. More detailed information concerning the revised cost sharing requirements for this project is set forth in subsequent paragraphs.

COST SHARING

As previously stated, Section 844 of WRDA 1986, one of the authorizations for the project, addresses the cost sharing for this project. Specifically it states "the costs of such modifications shall be allocated between general cargo navigation and inland navigation based on use patterns determined by the Secretary. Of the costs allocated to inland navigation, one-half of the Federal costs shall be paid from the Inland Waterway Trust Fund and one-half of Federal costs shall be paid from the General Fund of the Treasury. With respect to the costs allocated to general cargo navigation, cost sharing provided in Section 101 shall apply." Section 101 of WRDA 1986 provides for cost sharing of harbors and all costs allocated to general cargo navigation must be cost shared according to Section 101. The rationale for determining the cost allocation based on "use patterns" as required by Section 844 of WRDA 1986 is described as follows:

Initially, the lock size was optimized based on existing and projected use patterns as necessary to maximize net NED benefits. Accordingly, the optimum lock size was identified as a shallow draft lock with dimensions of 110 feet wide by 900 feet long by 22 feet deep. Since the optimum lock size was a shallow draft lock, all costs required to construct the shallow draft lock would be allocated to inland navigation and cost shared in accordance with Sections 102 and 844 of WRDA 1986. A deep draft lock necessary to replace the existing deep draft lock was then sized to best meet long term navigation needs and "use patterns" for the area. The size for the deep draft lock was determined to be 110 feet wide by 1200 feet long by 36 feet deep. Accordingly, to comply with the project cost allocation mandated by Section 844 of WRDA 1986, all incremental costs for the deep draft lock in excess of the costs to construct the shallow draft lock are allocated to general cargo navigation and cost shared in accordance with Section 101 of WRDA 1986. The detailed breakdown on how these costs would be allocated between inland navigation and general cargo navigation are described in the paragraphs that follow.

Construction

The cost estimates for the shallow draft plan and the replacement plan, as contained in the March 1997 Evaluation Report, provided the basis for determining cost sharing for the deep draft increment. The lands, easements, rights-of-way, relocations, and disposal areas (LERRD), the utility relocations, and the community impact mitigation costs, as approved in the 1997 Evaluation Report must be deleted from the computations, since all LERRD requirements and the community impact mitigation costs are allocated to the shallow draft plan. In the Evaluation Report, it was shown that the costs for the levees and floodwalls were the same for both plans. Subsequent studies have now shown that these costs are now different. The cost difference is not known at this time, so it can not be pro-rated back to the 1997 timeframe to incorporate into the computations below.

The costs from the March 1997 report are summarized below.

Total Project Cost (TPC) - $531,400,000 (Replacement Plan)
LERRD/Mitigation <u>($163,500,000)</u>
Total Construction $367,900,000

Total Project Cost - $463,100,000 (Shallow draft plan)
LERRD/Mitigation <u>($163,500,000)</u>
Total Construction $299,600,000

Deep Draft Increment - $68,300,000 ($367,900,000 - $299,600,000)

The cost sharing requirements authorized by Section 844 of the Water Resources Development Act of 1986 require that inland navigation or shallow draft plan be cost shared 50/50 between the Corps and the Inland Waterways Trust Fund (IWWTF). The deep-draft increment (general cargo navigation) will be cost shared in accordance with the provisions of Section 101 of the Water Resources Development Act of 1986, which requires that the initial costs of construction be shared 75/25 between the Corps and Port of New Orleans, respectively, during construction with an additional 10% of the general navigation feature costs allocated to the deep draft increment to be reimbursed by the Port over a period not to exceed 30-years after completion of construction. This makes the total cost share for the deep draft increment 65/35.

In order to establish a cost sharing allocation between shallow draft plan and deep draft (replacement) plan that does not change over time, percentages must be developed based on the cost estimates contained in the March 1997 report. The methodology for developing these percentages is shown below.

Port of N.O. total cost share = 6.5% of total construction costs (i.e., TPC less LERRD/Mitigation). This figure is derived by the following: $68,300,000/$367,900,000* 35% = 6.5%

Port of N.O. cost sharing percentage during construction = 4.64% of the total construction costs (i.e., TPC less LERRD/Mitigation). This figure is derived by the following: $68,300,000/$367,900,000 * 25% = 4.64%

Port of N.O. cost sharing percentage repaid over 30 years = 1.86% of the total construction costs (i.e., TPC less LERRD/Mitigation). This figure is derived by the following: $68,300,000/$367,900,000 * 10% = 1.86%

Corps cost sharing percentage for the deep draft increment during construction = 13.92% of total construction costs (i.e., TPC less LERRD/Mitigation). This percentage is derived as follows: $68,300,000/$367,900,000 * 75% = 13.92%.

All remaining costs are allocated to shallow draft and, excluding the non-compensable relocations, cost shared 50/50 between the Corps and the IWWTF.

Based on the current Incremental Cost Estimate of the replacement plan (Oct 1999 price levels), cost sharing would be distributed as follows:

TPC = $585,000,000 1/
LERRD/Mitigation = ($159,335,000) 1/
Construction $425,665,000

1/ Includes an estimated $24,820,000 in non-compensable relocations (i.e., paid by the owners of the utilities)

Port of N.O. estimated costs during construction = $19,751,000 ($425,665,000 * 4.64%)
Port of N.O. estimated costs after construction (repaid over 30 yrs) = $7,917,000 ($425,665,000 * 1.86%)

Corps estimated costs during construction:
Deep Draft Increment = $59,253,000 ($425,665,000 * 13.92%)
Shallow Draft = $240,588,000 (($585,000,000 - $24,820,000 - $19,751,000 - $59,253,000) * 50%)
Total Corps = $299,841,000 ($59,253,000 + $240,588,000)

IWWTF estimated cost during construction = $240,588,000 (($585,000,000 - $24,820,000 - $19,751,000 - $59,253,000) * 50%)

Non-compensable estimated relocation costs paid by utility owners = $24,820,000

TPC = $585,000,000 ($19,751,000 + $299,841,000 + $240,588,000 + $24,820,000)

Based on the current Fully Funded Estimate of the replacement plan (Oct 1999 price levels), cost sharing would be distributed as follows:

TPC = $690,000,000 1/
LERRD/Mitigation = ($172,073,000) 1/
Construction $517,927,000

1/ Includes an estimated $27,700,000 in non-compensable relocations (i.e., paid by the owners of the utilities)

Port of N.O. estimated costs during construction = $24,032,000 ($517,927,000 * 4.64%)

Port of N.O. estimated costs after construction (repaid over 30 yrs) = $9,633,400 ($517,927,000 * 1.86%)

Corps estimated costs during construction:
Deep Draft Increment = $72,095,400 ($517,927,000 * 13.92%)
Shallow Draft = $283,086,800 (($690,000,000 - $27,700,000 - $24,031,000 - $72,095,400) * 50%)
Total Corps = $355,182,200 ($72,095,400 + $283,086,800)

IWWTF estimated cost during construction = $283,086,800 (($690,000,000 - $27,700,000 - $24,031,000- $72,095,400) * 50%)

Non-compensable estimated relocation costs paid by utility owners = $27,700,000

TPC = $690,000,000 ($24,032,000 + $355,182,200 + $283,086,800 + $27,700,000)

These amounts are simply estimates and are subject to adjustment by the Government. Therefore, the amounts are not to be construed as the total financial responsibility of the Government and the Port of New Orleans for the deep draft increment of the replacement plan.

Operations, Maintenance, Repair, Replacement & Rehabilitation (OMRR&R)

In accordance with applicable inland and deep draft navigation, the Corps will be responsible for 100% of the OMRR&R costs for the replacement lock.

Hold And Save Provision

In accordance with its statutory obligation under Section 101 of the Water Resources Development Act of 1986, as amended, the Government must obtain a commitment from the Port of New Orleans to hold and save the United States free from damages due to the construction, operation and maintenance of the deep draft increment of the replacement plan, except for damages due to the fault or negligence of the Government or its contractor. It is recognized that the attribution of damages to the shallow draft plan versus the deep draft increment of the replacement plan could prove difficult. Therefore, it is recommended that the Project Cooperation Agreement between the Secretary of the Army and the Port provide that the Port indemnify the Government for a pre-determined percentage of any and all damages due to the construction, operation and maintenance of the entirety of the replacement plan, except for damages due to the fault or negligence of the Government or its contractor. This pre-determined percentage is 12.85 percent and is based on the cost estimates contained in the 1997 Evaluation

Report and calculated by dividing the estimated cost of the deep draft increment ($68.3 million) by the estimated cost of the total project ($531.4 million). In addition, the Port shall hold and save the Government free from all damages due to the construction, operation and maintenance of any betterments and any local service facilities, except for damages due to the fault or negligence of the Government or its contractors.

POTENTIAL FINANCIAL PLAN

Since all of the LERRDs required for the replacement plan are identical to the shallow draft plan, under this cost sharing scenario the Corps would pay the Port, as a land owner, the $16,730,000 for its real estate interests as a part of the shallow draft plan. The Port could use those funds during the construction period to meet their 25 percent share of the deep draft increment. Therefore, subtracting the $16,730,000 from the $24,032,000, fully funded number from above, ($19,751,000, incremental) results in $7,302,000 ($3,021,000, incremental), which will be the additional cash requirement needed by the Port during the construction period. That would mean that the Port's total cash requirement is currently estimated at $7,302,000 plus $9,633,400 or $16,935,400, fully funded or $3,021,000 plus $7,917,000 or $10,938,000, incremental. It should also be noted that the Port's share is paid annually during the construction period in proportion to the rate of Federal expenditures. Since actual construction of the replacement lock is currently not scheduled to begin until Fiscal Year 2007, the Port would be able to place the $16,730,000 into an interest bearing account to help offset their ultimate cash contributions. A Federal/Non-Federal allocation of funds table is enclosed.

RECOMMENDATION

As the District Engineer, I believe it is in the overall public interest to construct the 110' wide, 1200 foot long, and 36 foot deep lock. When Congress authorized this replacement project in Section 844 of the Water Resources Development Act of 1986, it authorized a new lock to replace the existing deep draft lock and specified that the cost sharing for both the shallow and deep draft increments shall be consistent with Sections 101 and 102 of the Water Resources Development Act of 1986.

Accordingly, I recommend that the deep draft lock improvements be implemented as a Federal project. I further recommend that the cost-sharing provisions in the Mississippi River-Gulf Outlet, New Lock and Connecting Channels, Evaluation Report, dated March 1997, be modified as required by law such that the non-Federal interests must provide 25 percent of the incremental construction costs for the deep draft portion of the project during construction and an additional 10 percent share in cash over a period not to exceed 30 years after completion of construction, at an interest rate determined pursuant to Section 106 of the Water Resources Development Act of 1986, and amendments thereto.

No changes to the scope, purpose, costs and benefits of the project are required as a result of this Supplemental Report. Also, required as a result of this change in the cost sharing will be the need to negotiate a Project Cooperation Agreement with the Port of New Orleans prior to the initiation of construction of the lock structure.

THOMAS F. JULICH
Colonel, EN
Commanding

Enclosure

Federal / Non-Federal Allocation of Funds
Fully Funded ($000) Based on October 1999 Price Levels

Year	Total Project Costs	Corps/IWTF LERRD	Relocations By Owners	Corps/IWTF Mitigation	Construction	Corps/IWTF Costs	Non-Federal Cash
Thru FY 99	29,993	280	0	0	29,713	29,713	0
FY 2000	32,565	18,804	0	125	13,636	13,636	0
FY 2001	14,349	0	0	4,000	10,349	10,349	0
FY 2002	5,800	0	0	4,000	1,800	1,800	0
FY 2003	22,300	200	12,300	4,000	5,800	5,800	0
FY 2004	30,160	2,866	14,160	4,000	9,134	9,134	0
FY 2005	15,260	4,796	1,240	4,000	5,224	5,224	0
FY 2006	22,000	6,070	0	4,000	11,930	11,930	0
FY 2007	39,400	0	0	4,000	35,400	29,693	5,707
FY 2008	76,200	0	0	4,000	72,200	68,850	3,350
FY 2009	108,400	5,428	0	4,000	98,972	94,380	4,592
FY 2010	128,400	29,386	0	4,000	95,014	90,605	4,409
Balance	165,173	32,942	0	3,475	128,756	122,782	5,974
Total	690,000	100,773	27,700	43,600	517,927	493,896	24,032

Note: The non-Federal share of the sunk PED costs allocated to general cargo navigation would be recovered prior to advertisement of the first contract associated with construction of lock structure. Currently, this first contract is scheduled for advertisement in FY 2007.

Enclosure