

KING HARBOR, REDONDO BEACH, CALIFORNIA

COMMUNICATION

FROM

THE ASSISTANT SECRETARY OF THE ARMY
(CIVIL WORKS)

TRANSMITTING

A REPORT FROM THE CHIEF OF ENGINEERS, DEPARTMENT OF
THE ARMY, ON KING HARBOR, REDONDO BEACH, CALIFORNIA,
TOGETHER WITH OTHER PERTINENT REPORTS AND COMMENTS



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16.0 RECOMMENDED PLAN

16.1 Plan Description

The recommended plan comprises improvements to the North and South Breakwater. The North Breakwater would be raised from Stations 36+00 to 46+00 to +20 feet MLLW; the South Breakwater would be extended into the harbor by 300 feet. Both improvements would be accomplished by placing additional quarry stone to achieve desired crest elevation and length, respectively. At the North Breakwater, stone would be placed on the landward side of the existing structure to reduce stone quantity. Additional right-of-way would be needed to extend the South Breakwater.

16.2 Plan Accomplishments

The recommended plan would provide a 50-year level storm damage protection to Moles C and D and Basin 3. Damages from greater than 50-year storms would also be significantly reduced from recommended plan. Mole B is already protected to the 50-year event by the higher crested North Breakwater which was raised in 1964. Table 16.1 compares the effectiveness of the Recommend Plan with the existing conditions in reducing wave runoff in the interior harbor. Damages to Mole C and D would be reduced and undeveloped waterfront lands could be utilized. The raising of the North Breakwater would allow also Redondo Beach-King Harbor to increase the number of offshore moorings in the outer harbor. Emergency storm damage protection and damage repair costs would be reduced.

16.3 Economic Effects

16.3.1 Costs

The estimated first cost of the recommended project includes estimates for construction, engineering, supervision, and administration. Unit prices for construction were based on prices prevailing in October 1987. Table 16.2 provides a detailed cost estimate of the recommended plan and economic annual benefits. Annual charges are the sum of interest on investment, amortization of the investment over a 50-year period, and annual costs of project maintenance and operation. Project costs include all advanced engineering and planning, which includes hydraulic model studies. Construction would be accomplished in nine months. Interest during construction was applied to construction items to obtain the total investment. Interest and amortization were determined on an interest rate of 8-5/8 % over a 50 year project life.

16.3.2 Benefits

A summary of benefits associated with the recommended plan is listed below:

1. Inundation benefits: The annual reduction in damages associated with a 50-year project life is \$697,100. This includes damage to structures and contents.
2. Emergency and cleanup costs: Annual emergency costs for flood fighting, disaster relief, clean-up, and police services would be \$22,300, all of which would be reduced by the recommended plan.

re no significant impact on water
a short term during stone placement.
3 acres of recent beach sediment

Endangered Species

Endangered species in Redondo Beach-King
Island and the California least tern.
Ensure the continued existence of these

Involve cultural resources.

The recommended plan will reduce the
magnitude of repairs resulting
from use of the harbor by thousands of
people. It will also allow enhancements by the
harbor to improve the harbor experience. The
provisions of dwelling or commercial

Quality of life

Provide a high level of protection from
in less threat to structural damage
from, and trauma.

as

Required as no significant long term
impacts on the plan.

ity

and local agencies, and individuals.
The major comment is to insure that
the plan of recent major storms.

17.0 PLAN IMPLEMENTATION

17.1 Division of Plan Responsibilities

17.1.1 Allocation of Costs

The main project purpose is for storm damage reduction. Additional
recreation benefits are incidental to the storm damage improvements.

17.1.2 Cost Apportionment

Apportionment of the total project costs between Federal and non-
Federal interests for the selected plan is in accordance with project
purposes of storm damage reduction as specified in Section 103(c)5 of the
Water Resources Development Act of 1986 which requires non-Federal
interests to provide 35 percent of the total project costs of
improvements to the project. Federal participation would be 65 percent
of the total project costs of improvements. This provides for consistent
application of Federal policy on cost-sharing for the project purposes.

In defining maintenance responsibilities, it is recognized that the
Federal government is responsible for maintenance of the existing
breakwater structures. In accordance with Section 103(j)1 of the Water
Resources Development Act, maintenance of the improvements requires 100
percent non-Federal cost-sharing. This requirement will be applied to
any future maintenance work required for the improved portions of the
breakwaters.

17.1.3 Federal Responsibilities

The presently estimated total project cost is \$5,873,000. The Federal government share of the total project cost is 65 percent. Included in this financial responsibility, the Federal Government would:

1. design and prepare detailed plans and specification; and
2. administer contracts for construction and supervision of the project after authorization, funding, and receipt of non-Federal assurances.

The Federal government would operate and maintain the existing project with the local sponsor providing 100 percent of operation and maintenance of the project recommended in this report as authorized in Section 103(j)(1) of the Water Resources Development Act of 1986.

17.1.4 Non-Federal Responsibilities

The non-Federal share of the total project cost is 35 percent. The local sponsor for the project is the City of Redondo Beach. Requirements of local cooperation are specified below:

1. provide all lands, easements, rights-of-way and perform all relocations and alterations of buildings, utilities, highways, sewers, moorings, and related and special facilities determined by the Government to be necessary for construction of the project;
2. if the value of the contributions provided under paragraph a represents less than 35 percent of total project costs, provide before award of contract, a cash contribution in the amount necessary to make its total contribution equal to 35 percent of the total project costs;
3. after it is turned over by the Government, operate, maintain, replace, and rehabilitate the project, or functional elements thereof, in accordance with regulations or directions prescribed by the Government;
4. hold and save the Government free from all damages arising from the construction, operation, and maintenance of the project except for damages due to the fault or negligence of the Government or its contractors; and
5. comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646 in acquiring lands, easements, and right-of-way for construction and subsequent operation and maintenance of the project, and inform all affected persons of applicable benefits, policies, and procedures in connection with said project.

17.2 Sponsorship Agreements

Prior to the start of construction, the sponsor will be required to enter into an agreement with the Federal government and satisfy state laws and all applicable regulations. Appendix D contains a draft of the local cooperation agreement.

17.2.1 Financial Analysis

Financial information on the non-Federal sponsors ability to fund for their share of the plan is required to establish implementability of the project as required by Principles and Guidelines. The information includes a preliminary financing plan outlining the costs, schedule of expenditures, and a statement of financial capability by the non-Federal sponsor including sources of funds, authorities to use the identical sources and their capability to obtain the funds. The preliminary financial plan is presented in Appendix 1.

17.2.2 Local Cooperation

The City of Redondo Beach in a letter dated August 5, 1988 indicated its support for the recommended plan and its willingness and intent to execute the Local Cooperation Agreement including providing the non-Federal costs and other required assurances. The City states its financial capability to provide its share of estimated costs with alternative sources of funds.

17.3 Procedures for Implementation

Future actions necessary for authorization and construction of the recommended plan of improvement are summarized as follows:

1. This report will be reviewed within the Corps of Engineers, including the South Pacific Division in San Francisco and the Board of Engineers for Rivers and Harbors and the Office of the Chief of Engineers in Washington, D.C.
2. The Chief of Engineers will seek formal review and comment by the Governor of the State of California and interested Federal Agencies.
3. Following the State and Agency review, the report of the Chief of Engineers will be sent to the Assistant Secretary of the Army for Civil Works.

