

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Policy Guidance Letter No. 23, Improvements for Navigation Safety and Reduction in Damages from Tide and Wave Sources

1. References:

a. Section 101 of Public Law 99-662.

b. Section 103 of Public Law 99-662.

2. Background. Recent questions have been raised on the formulation and cost-sharing for measures that address problems of navigation safety and wave induced damages. Traditionally, measures for reducing damages to berthed vessels and berthing facilities were categorized as navigation features. No other appropriate purpose existed. Establishment of the hurricane and storm damage reduction (HSDR) purpose in Public Law 99-662 provided a category suited to damages of this nature.

3. Policy. Wave induced damages sustained by commercial or recreational vessels while berthed at docks, piers, slips or loading/unloading facilities or wave induced damages to these facilities, or other shoreline facilities, are considered storm damages. Cost sharing of measures to prevent these storm damages are appropriately addressed under the HSDR provisions of section 103(c)(5) and 103(j) of Public Law 99-662. As in the application of cost sharing for flood control projects, no distinction is made regarding use of the facilities, i.e., recreation, commercial, public or residential. Measures to provide for safe and efficient movement of vessels into and within a harbor and measures to prevent loss or damage to vessels in transit (harbors of refuge) would continue to be cost shared as navigation (harbor) measures. This policy does not provide any Federal interest in the construction of docks, terminal or transfer facilities, or berthing areas.

4. Application of Policy for navigation Harbors.

a. The policy applies to existing berthed vessels and shoreline facilities and to vessels and facilities that would exist in the future without project condition.

b. If vessels would relocate as a result of a project, benefits may result from reduction in damages and from other incremental efficiencies. In such cases HSDR benefits are limited to the level of damages experienced at the alternative location less the damages that will occur at the proposed project. Any expected benefits in excess of these damages reduced are due to provision of safe and

efficient movement of the vessels into and within the harbor, and are thus considered navigation benefits.

c. For vessels that would not be present at any location in the without project condition, but would be present in the future as a result of the project, benefits are considered to be navigation benefits.

d. Projects are formulated for HSDR and to provide safe and efficient movement of vessels (navigation). Opportunities to expand harbor capacities may be incidental to these purposes. Projects are not to be formulated to expand harbor capacities for permanent berthing, except as a locally preferred plan subject to special cost sharing.

5. Application of Policy for Multiple Purpose Facilities. Measures to reduce damages to berthed vessels and berthing or other shoreline facilities may also result in the reduction in hazardous navigation conditions resulting in safer and more efficient navigation. Where measures are formulated to serve both HSDR and navigation, an allocation of multiple purpose joint costs must be made and the joint costs shared in accordance with the purpose to which they are allocated. This cost allocation must include operation, maintenance, repair and replacement and rehabilitation (OMRR&R) costs recognizing that OMRR&R is a non-Federal responsibility under the HSDR purpose. No cost allocation is required where a measure is formulated to serve a single purpose but results in incidental benefits, provided that the single purpose feature maximizes net benefits. For example, a breakwater formulated to provide HSDR, which is a part of a National Economic Development (NED) plan, may produce incidental navigation benefits but would be cost shared as an HSDR feature.

6. Comments and Responses. The review of this policy by division offices resulted in many useful comments and questions. The responses to these comments are enclosed for information and use in implementing this policy guidance.

FOR THE COMMANDER:

Encl PATRICK J. KELLY

Major General, USA
Director of Civil Works

CECW-PA 23 July 1990

COMMENTS ON POLICY ON IMPROVEMENTS FOR NAVIGATION SAFETY
AND REDUCTION IN DAMAGES FROM TIDE AND WAVE SOURCES

LMVD:

COMMENT 1. Economically justified measures to reduce or eliminate storm damages to existing harbor facilities would inherently protect vessels and facilities expected to be present in the future, and would in all likelihood induce additional boating use and facilities. The proposed generic policy which prescribes that the cost of such measures are necessary to satisfy future navigation demand and should be assigned to navigation rather than storm damage reduction makes no sense to us and would be unwieldy to apply. It has been traditional Corps policy that the Federal interest in navigation does not extend to harbor facilities such as docks, terminal and transfer facilities, berthing areas, and local access channels. To maintain consistency with that policy and the position adopted in the specific case of Oceanside Harbor, we believe that the costs for measures to protect harbor facilities and berthed vessels from wave related damages (exclusive of wave damages caused by vessel/ship movement) should, with certain exceptions, be assigned to the storm damage reduction purpose, regardless of whether the benefited harbor facilities are existing or proposed.

RESPONSE COMMENT 1. Agree. Paragraph 4 of the policy guidance letter addresses this concern and provides that HSDR benefits could be claimed for protection of development that would exist in the future without project condition.

COMMENT 2. Generic policy for application to future cases like Oceanside Harbor should consider whether the measures proposed for storm damage reduction to harbor facilities are necessary for the safe and efficient movement of vessels. In that case, the costs for such measures should be allocated to storm damage reduction and navigation in proportion to the benefits provided. Otherwise, the costs should be assigned to storm damage reduction.

RESPONSE COMMENT 2. Agree. Paragraph 5 of the policy guidance letter indicates that a cost allocation should be made where measures are formulated to provide both HSDR and navigation benefits.

POD:

COMMENT 1. The share of the construction first cost for harbors over 45 feet in depth will actually be less for our sponsor partners under the new policy. A majority of the Corps harbor projects, however, are 45 feet or less in depth. In these cases, it will require more local cost sharing of construction. Will all

maintenance costs for the Hurricane and Storm Wave Reduction (HSDR) structures shift to our sponsor partners regardless of depth?

RESPONSE TO COMMENT 1. The POD comment reflects a misunderstanding of the policy. Cost sharing for improvements justified by traditional navigation benefits such as savings in transportation costs will not change. Increased project depth which is unlikely to result in any HSDR benefits would continue to be shared as a navigation measure. The policy will not have the impact on cost sharing anticipated by POD and cost sharing for many harbors would not change. Maintenance of the features of a project which are for HSDR would be non-Federal. We have added a statement to paragraph 3 of the policy guidance letter to emphasize that measures to provide for the safe and efficient movement of vessels would continue to be shared as navigation features.

COMMENT 2. The ASA(CW) policy distinction blurs when one considers the trade-off of a carrier deciding whether to wait for storm waves to abate (causing delays which are navigation benefits) or to proceed to the pier (and risk damages, which policy indicates are HSDR benefits).

RESPONSE TO COMMENT 2. Disagree. In the example cited, any measures to either reduce or avoid delays or reduce or avoid damages while a vessel is underway are clearly navigation benefits.

COMMENT 3. The logic of the ASA(CW) policy could probably lead us to consider all commercial harbor improvements (over and above the cost of an open roadstead pier) to be HSDR mitigation structures (HSDR-MS). This could even include entrance channels and turning basins. All harbors of refuge will be HSDR-MS. All small craft harbor breakwaters and other protective structures will be HSDR-MS.

RESPONSE TO COMMENT 3. Disagree. See response to Comment 1. Harbors of refuge would likely be justified for savings of vessel damages or losses while in transit and therefore would be shared as a navigation (harbor) feature. A statement has been included in paragraph 3 of the policy guidance letter to clarify this point. Small craft breakwaters and other protective structures could be either navigation, HSDR or both depending on the factors discussed in paragraph 4 of the policy guidance letter.

COMMENT 4. Recommend against interpreting WRDA 86 so as to include protection of structures obviously needed for safe and efficient harbor use as HSDR structures.

RESPONSE TO COMMENT 4. As noted in paragraph 3 of the policy guidance letter, measures to insure safe and efficient movement of vessels into a harbor would continue to be cost shared as a navigation measure.

WASHINGTON LEVEL REVIEW CENTER:

COMMENT 1. COST ALLOCATION. Measures to reduce damages to existing, fixed facilities, which are classified as hurricane and storm damage reduction (HSDR) may provide joint outputs in national economic development (NED) benefits through a reduction in transportation costs and an increased net income from greater use. As a result of the difference in non-Federal cost sharing between HSDR and navigation, some projects may require an allocation of multiple purpose joint costs between storm damage reduction and navigation. The development of a generic policy needs to describe when such a cost allocation is appropriate. It also needs to address when the navigation output of an HSDR measure (or vice-versa) is "incidental".

RESPONSE TO COMMENT 1. Agree. Guidance on cost allocation is provided in paragraph 5 of the policy guidance letter.

COMMENT 2. New or additional harbor facilities (docks and slips) may be the most cost effective alternative to reducing storm damages in some harbors. In this case the guidance could be interpreted to mean the provision of new or additional slips is a storm damage reduction feature with first costs as 65 percent Federal.

RESPONSE TO COMMENT 2. Agree. A statement has been added to paragraph 3 of the policy guidance letter to clarify that the guidance does not provide the basis for a Federal interest in constructing docks.

COMMENT 3. All appropriate national economic development benefits should be identified to the extent possible within study resources. A project with both HSDR outputs and navigation outputs (commercial and/or recreational) may be economically justified by just one of the two outputs. The generic policy should indicate that all benefits affecting cost apportionment be estimated.

RESPONSE TO COMMENT 3. Agree that all appropriate benefits should be claimed but this is a general planning principle that we don't believe needs to be specifically highlighted in this guidance.

COMMENT 4. CONSISTENCY. If new guidance is issued distinguishing HSDR from navigation outputs, memorandum from CECW-RP, 23 February 1989, subject "Guidance Letter No. 7, Cost Sharing for Shore Protection Project", should be reviewed for consistency.

RESPONSE TO COMMENT 4. Policy Guidance Letter 7 has been incorporated into EC 1165-2-149. We see no inconsistency between the policy guidance letter and the EC.

NED:

COMMENT 1. NED has found that there are cases where breakwaters do provide a navigation benefit of improvement in movement of vessels. Specifically, this is the situation where commercial fishing vessels must navigate harbors to unload catch and return to anchorage areas. In these cases, benefits such as reductions in fish spoilage and reductions in operating cost accruing to breakwaters are apportioned separately.

RESPONSE TO COMMENT 1. Agree.

COMMENT 2. If it is a case of wave attack alone causing damage to shore facilities, then storm protection is needed. It is noted that shore protection of this nature usually deals with levels of protection much higher than that afforded by solutions designed for navigation problems and needs.

RESPONSE TO COMMENT 2. Noted

SPD:

COMMENT 1. This office fully concurs in the subject policy.

RESPONSE TO COMMENT 1. Noted.

COMMENT 2. As an aid in further clarifying this policy, we would recommend that the "application" paragraph of the policy position paper reiterate the kinds of facilities eligible under HSDR (wharves, docks, piers, pilings, revetments) and reflect the fact that HSDR is equally applicable to all vessels, whether commercial or recreational.

RESPONSE TO COMMENT 2. Agree. Language on types of facilities to be protected is reflected in paragraph 3 of the policy guidance letter.

ORD: Although we believe the referenced policy to be very well written and more than adequate, application to the inland navigation system within the Ohio River Division would probably be limited.

RESPONSE TO COMMENT. Noted.

MRD: Negative response - No experience or potential applications.

NCD:

COMMENT 1. The March 1990 memo from CECW-P to the BERH makes reasonable distinction between improvements for navigation safety and those for reductions in storm induced damages. I would support its application as policy in a generic sense for future cases.

RESPONSE TO COMMENT 1. Noted.

COMMENT 2. A lingering concern remains with the last sentence of paragraph 4 in the 8 March 1990 memo, which touches upon the subject of induced boating use and development of facilities. Such induced use and development should not be allowed to rely upon the Corps' project to provide safety and protection if the induced development contains features or encourages activities not originally contemplated in the design of the Corps project. In other words, the Corps should not be held accountable for repeated "design deficiencies" at projects where new interests or users attempt to take advantage of what the Corps provides.

RESPONSE TO COMMENT 2. Agree that the Corps should not be held accountable for damages where a harbor is used in a way that is not compatible with the design. However, we don't believe that this policy guidance letter is the place to deal with the question of what is or is not a design deficiency.

NPD:

COMMENT 1. We believe the generic policy dictating Corps participation should be tied to hurricane and storm damage reduction (HSDR) and not wave induced damage. Specifically, we do not believe the frequent/everyday ocean swell problems associated with harbors, which result in nuisance and/or more frequent-than-normal repair and replacement costs, should be classed as storm damage eligible for Federal participation in the HSDR program. These problems are more appropriately linked to an inadequate harbor design, and if Corps - built, may be eligible for participation under the design deficiency program.

RESPONSE TO COMMENT 1. We believe the distinction between damage from frequent/everyday waves and storm damage would be an impossible distinction to make. Most waves have their origin in the wind associated with a weather event ("storm", "front", etc.). The question of what is a design deficiency correction versus a new measure to address storm damage reduction is a difficult case-by-case decision and beyond the purpose of the generic policy guidance letter.

COMMENT 2. The generic policy should also address cost sharing and cost allocation. Some projects-will have separable and joint cost attributable to commercial, recreational, and shore protection outputs. Since cost sharing will be based on an allocation, guidance on a cost allocation procedure is desirable.

RESPONSE TO COMMENT 2. Agree. Guidance on cost allocation is provided in paragraph 5 of the policy guidance letter. The "how-to" on cost allocation is provided in ER 1105-2-100 and does not need to be addressed in the policy guidance letter.

COMMENT 3. The generic policy should clarify what is meant by “currently present”. For example, many of our evaluations include benefit calculations for a safe harbor improvement (new project) at Site A for vessels that are present at Site B and are at risk to storm damage, and subsequently move to Site A for safe moorage. It would seem to us that the harbor development at Site A in this case, is for storm damage reduction. The same argument can be made for harbors of refuge, those whose sole purpose is to provide safe moorage from storms.

RESPONSE TO COMMENT 3. Agree. Paragraph 4 of draft policy guidance letter has been clarified with respect to application of HSDR benefits to existing and future vessels. In the example given, since vessels are currently experiencing storm damages and these damages would not occur as a result of the vessels being relocated to the new harbor, the benefits would be HSDR. There is a possibility that navigation benefits could also be realized if there are other navigation efficiencies associated with the new harbor location.

COMMENT 4. We suggest the generic policy also address harbors of refuge and the benefits these developments provide. We view harbors of refuge benefits potentially as high value benefits, far in excess of the token \$10,000 annual benefit that has been the long-standing Corps standard for the maximum claimable. We believe the state of the art exists for a supportable analysis to evaluate these benefits, and the generic guidance should specifically allow preventable open ocean damages to be included in the storm damage reduction category.

RESPONSE TO COMMENT 4. We have added some clarifying language on harbors of refuge to paragraph 2 of the policy guidance letter. We agree that a supportable analysis can be developed to evaluate the benefits of harbors of refuge to prevent or reduce loss or damages to vessels. There is no current guidance that limits these benefits to \$10,000 annually. We don't agree that these are HSDR benefits, however, since they relate to prevention of losses or damages to vessels in transit not while berthed in a harbor. Therefore, cost sharing would continue to be navigation (harbors).

COMMENT 5. The issuance of this generic policy could affect Kodiak Harbor and result in increased cost to the non-Federal sponsor. Due to the nature of the project authorization and the late stage of development, we would recommend that consideration be given to grandfathering Kodiak Harbor and other projects Corps-wide that are in a similar stage of development

RESPONSE TO COMMENT 5. The policy guidance letter would be effective as of the date it is issued. It would not, however, affect the cost-sharing of any project where a local cooperation agreement has been executed. We don't believe the policy would impact the cost sharing for the Kodiak Harbor project (see response to comment 4).

SWD:

COMMENT 1. Application of a general policy could lead to major shifts in funding for some projects. Port and mooring facilities for waterborne commerce should be afforded the same level of protection as the channels themselves, and, therefore, on an equal cost sharing basis. Cost sharing provisions of the HSDR section of WRDA 86 should be applied to small boat harbors and commercial port features that provide a level of protection in excess of that provided for the channel

RESPONSE TO COMMENT 1. Partially disagree. The level of protection afforded to port and mooring facilities should be based on maximizing net NED benefits and may or may not be the same as provided by a jetty or breakwater which protects vessels transiting a channel. We do agree that additional justified HSDR protection for berthed vessels and berthing areas, that is in addition to and separable from the protection which can be justified for the navigation purpose of protecting vessels in transit through the channel, would be shared as HSDR costs.

COMMENT 2. The application of the specific cost sharing for HSDR to wave damage incurred by moored vessels appears to be going beyond the purpose of identifying a separate category for storm damage reduction from storm surge and attendant wave and high velocity overflow. The harbor facilities should be considered an integral part of the navigation project, which -would necessarily include the safe docking of vessels for loading and unloading purposes. Protection from waves generated by prevailing winds and normal weather patterns would be considered a typical navigation feature and cost shared accordingly. Additional lengths and heights of structures, which would go beyond that normally required for navigation projects and would clearly be for hurricane and storm damage reduction purposes, should be cost shared in accordance with HSDR provisions of WRDA 86.

RESPONSE TO COMMENT 2. We believe the distinction between damage caused by waves generated by prevailing winds and normal weather patterns and waves generated by storms would be an impossible distinction to make.

COMMENT 3. The separation of navigation costs and damages related to wave action caused by storms is obviously difficult. One suggestion is to separate them based on benefits. We recommend that protection against any wave or storm damage that would cause reduction in transportation benefits or increased costs to navigation be considered as navigation.

RESPONSE TO COMMENT 3. We considered various options for differentiating between navigation and HSDR benefits. We believe that the consideration of damages to berthed vessels and berthing areas as HSDR versus provisions for

safe and cost efficiency for vessels in transit as navigation is the differentiation which will be easiest to apply.

SAD:

COMMENT 1. The policy appears inconsistent regarding existing and future facilities. Normal planning procedures would require the development of existing and future with and without project conditions. Project benefits would result from both existing and future damages. In order to insure consistency, recommend the damages from both existing and future vessels and facilities be considered as hurricane and storm damage reduction (HSDR) benefits where appropriate or an explanation be provided for excluding consideration of future facilities.

RESPONSE COMMENT 1. Agree. Paragraph 4 of the draft policy guidance letter provides guidance on application of the policy to future facilities or vessels

COMMENT 2. We question whether the statement that no distinction is made for the use of the facilities being damaged is appropriate. If the HSDR provisions are to be applied to subject topic, then it would seem that all the policies developed for more traditional HSDR projects would be applicable. Although distinctions between the use of the facility being damaged may not be made in Flood Damage Reduction (FDR) projects, they are made in HSDR projects. Current HSDR policy requires erosion of land used as a public park to be valued as a recreational loss rather than being valued as adjacent land, or even "near-shore" land. Information provided to SAD staff by the WLRC in preparation for the BERH meeting indicated that the HSDR benefits for Oceanside Harbor had been disaggregated into navigation and recreation benefits based on moorage areas. The recreation (HSDR) benefits did not exceed 50 percent of the benefits required for justification of the project. Recommend that any generic policy for HSDR as related to navigation projects be consistent with existing HSDR policies, especially as related to recreation.

RESPONSE TO COMMENT 2. The policy cited does provide that in the specific case of shore protection for parks and conservation areas, the output of that protection will be considered recreation for purposes of cost sharing and determination of the limit on Federal participation. However, this specific provision of policy is limited in its application to parks and conservation areas. It does not impose any general requirement to categorize the use of facilities being afforded hurricane and storm damage protection for purposes of cost sharing or determination of any limit on Federal participation.

COMMENT 3. Modification of an existing navigation project for purposes of HSDR would appear to involve different cost sharing than the parent project. Where this modification was required to overcome a previous "design deficiency", consideration should be given to special cost sharing where navigation cost sharing would be applicable to the modification. It does not

appear logical to apply different cost sharing than was applied to the parent project which did not adequately address the problem.

RESPONSE TO COMMENT 3. Existing policy provides that design deficiencies are shared in accordance with WRDA 86. Therefore, we believe that HSDR cost sharing would be appropriate to address a design deficiency which results in damages to berthing areas, berthed vessels or shoreline facilities. However, the discussion of the criteria for a design deficiency is beyond the intended scope of the policy guidance letter.

COMMENT 4. The policy should address whether damages to vessels associated with Harbor of Refuge evaluations would be navigation or HSDR benefits.

RESPONSE TO COMMENT 4. Agree Paragraph 3 of the policy guidance letter makes it clear that benefits associated with Harbors of Refuge evaluations would be navigation benefits if associated with prevention of losses or damages to vessels in transit.