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DAVID A. PATERSON
GOVERNOR

LORRAINE A. CORTÉS-VÁZQUEZ
SECRETARY OF STATE

June 3, 2009

Mr. Roger Mawhiney
Mawhiney Trucking Inc.
425 Lake St.
Wilson, NY 14172

Re: F- 2008-0831 and F-2008-0832
U.S. Army Corps of Engineers/ Buffalo District Permit Application 2008-01368
NYS DEC Permit #s 9-2942-00197 and 9-2942-00183
Sam Patel - cut 4' down and reslope bluff face to 1:3, construct approx. 230 ft. rip-rap revetment
Harry Heitzenrater - construct 85 lf. rip-rap revetment at a 1:3 slope at base of bluff
Lake Ontario, Town of Wilson, Niagara County
Objection To Consistency Certification

Dear Mr. Mawhiney:

The Department of State has completed its review of the above-referenced proposals and the consistency certifications provided for them.

Pursuant to 15 CFR Part 930.63, the Department of State objects to the consistency certification for these proposed activities because the proposed activities are not consistent with Policies 12, 14, and 17 of the New York State Coastal Management Program (CMP). As a result of this objection, the consistency provisions of the federal Coastal Zone Management Act (CZMA) prohibit the U.S. Army Corps of Engineers from authorizing these activities unless this objection is overridden on appeal to the U.S. Secretary of Commerce.

Subject of the review

You have requested authorization from the U.S. Army Corps of Engineers/Buffalo District on behalf of your clients, Harry Heitzenrater and Sam Patel, to cut and regrade a bluff face to a 1:3 slope and construct a 230-foot and an 85-foot long rip rap revetment along the Lake Ontario shoreline at 3171 and 3177 West Lake Road, in the Town of Wilson, Niagara County.

Factors Relevant to this Review:

The proposed activities, which requires authorization from the U.S. Army Corps of Engineers, is subject to the consistency provisions of the CZMA and is required to be consistent with the

enforceable policies of the CMP.

The proposed activities would be undertaken in an area characterized by beach, bluff, and nearshore area. These physical features help to minimize or prevent damage or destruction to property, natural resources, and natural protective features; and help to protect human life and property from flooding and erosion hazards through natural coastal processes. The photographs submitted show that much of the bluff is vegetated and the beach area between the toe of the bluff and the lake is comprised of stones and small cobbles. The beach area, comprised of stone and small cobbles, is not highly susceptible to erosion under existing conditions. The stated purpose for the proposed activities is to prevent erosion. However, the information submitted does not demonstrate that there is active erosion at this site.

Furthermore, according to the information submitted with your consistency certifications, revetments exist immediately adjacent to the proposed revetments, and there are no residential or other structures on the upland properties that are or would be in jeopardy from flooding and erosion hazards. The scientific literature suggests that erosion between the existing shore protection structures on adjacent properties will only progress to the point where a "static equilibrium" is reached. In examples of headland – bay beaches studied in Australia (1988; Hsu, Silvester, and XIA: Generalities on Static Equilibrium Bays; Coastal Engineering 12: 353-369); Alaska (1981; Finkelstein, K; Morphological variations and sediment transport in crenulate-bay beaches, Kodiak Island, Alaska. Marine Geology, 47: 261-281); New Jersey and California (1965; Yasso, W.; Plan Geometry of Headland-Bay Beaches; Journal of Geology, v 73 – n. 5) and elsewhere, it has been shown that erosion between headlands progresses only a set distance inland. That distance is dependent on wave forces and direction and the spacing between headlands. In this instance, the existing shoreline bulkheads act as headlands, causing a change in characteristics of the waves that impact the adjoining unprotected area. The intervening beach reaches a dynamically stable condition after a period of time because waves refract such that longshore transport no longer removes sand from the beach. In this case, more than adequate time has passed to allow the beach between the existing bulkheads to reach this equilibrium condition. Further significant landward penetration of the erosion is not likely unless there is significant change in wave or bulkhead conditions. Given the scientific literature, the information provided with your clients consistency certifications, and in the absence of specific information documenting shoreline conditions over time, it does not appear that there is active or severe erosion at this site.

Applicable Policies:

POLICY 12: ACTIVITIES OR DEVELOPMENT IN THE COASTAL AREA WILL BE UNDERTAKEN SO AS TO MINIMIZE DAMAGE TO NATURAL RESOURCES AND PROPERTY FROM FLOODING AND EROSION BY PROTECTING NATURAL PROTECTIVE FEATURES INCLUDING BEACHES, DUNES, BARRIER ISLANDS, AND BLUFFS.

POLICY 14: ACTIVITIES AND DEVELOPMENT, INCLUDING THE CONSTRUCTION OR RECONSTRUCTION OF EROSION PROTECTION STRUCTURES, SHALL BE UNDERTAKEN SO THAT THERE IS NO MEASURABLE INCREASE IN EROSION OR

FLOODING AT THE SITE OF SUCH ACTIVITIES OR DEVELOPMENT, OR AT OTHER LOCATIONS.

The "explanation of policy"[1] for Policy #12 indicates that natural protective features include bluffs. The proposed revetment would be constructed at the toe and on the face of a bluff. Bluffs protect coastal lands and properties, as well as human lives from wind and water erosion by absorbing the often destructive wave energy of open water, and are of greatest value during times of storm-induced high water. Construction of the revetment would reduce the benefits of the bluff as a natural protective feature by replacing the toe and face of the bluff with a revetment. This could result in scour and erosion of the nearshore area waterward of the proposed revetment during storms, impairing the natural functions of the bluff, negatively impacting the sediment budget along the entire shoreline and lead to further loss and erosion of the shoreline downdrift. This would not be consistent with Policy #12, the purpose of which is to minimize damage to the protective features of the bluff, nor would it be consistent with Policy # 14, the purpose of which is to avoid measurable increases in erosion of adjacent areas.

The impacts of bulkheads and revetments on coastal resources as stated in Policies 12 and 14 are supported by scientific research. The scientific research and reports[2] conclude that bulkheads, revetments, and other structural shore protection have well recognized impacts, including:

1. Reflection of wave energy off of seawalls, bulkheads, and revetments accelerates beach and nearshore erosion. This results in loss of the beach and loss of habitat above and below the water line.
2. Such structures result in accelerated erosion of adjacent beaches through wave reflection and loss of the natural movement of sand from the bluffs to nearby beaches.
3. Increased turbulence in front of bulkheads increases turbidity in the water column with impacts on adjacent habitat.
4. Loss of beaches also reduces recreational opportunities Lake Ontario.
5. The ecosystem costs resulting from bulkhead impacts are typically borne by the public, not by the property owner.

The individual and cumulative impact of bulkheads on the shoreline and ecosystem of Lake Ontario is a concern. They will eventually alter the properties, composition, and values of the ecosystem that humans depend upon. Research leading up to the 2007 Final Report of the International Joint Commission (Final Report of the International Joint Commission for Managing Lake Ontario and St. Lawrence River Water Levels and Flows, Annex 2, 2006, p. 59)

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[1] The State Coastal Policies are contained within the State of New York Coastal Management Program and Final Environmental Impact Statement as amended in the New York State Coastal Management Program Routine Program Change of 2001. A copy of the State Coastal Policies, along with the explanations of policy can be found at http://www.nyswaterfronts.com.

[2] 1984, Corps of Engineers Shore Protection Manual 2006; 2007 Final report of the International Joint Commission for Managing Lake Ontario and St. Lawrence River Water Levels and Flows; 2006, Hudson River Shoreline Restoration Alternatives Analysis by DEC; 1985, A Guide to Coastal Erosion Processes prepared by NY Sea Grant for Lake Ontario; 2007, Mitigating Shore Erosion on Sheltered Coasts by the National Research Council; 2007, State of the Great Lakes Ecosystem Conference biennial report by EPA and Environment Canada

for Managing Lake Ontario and St. Lawrence River Water Levels and Flows found that approximately 50% of the Lake Ontario shoreline is hardened. Based on Lake Ontario research, the IJC stated: "The bluff shorelines of Lake Ontario have been eroding for thousands of years. This process provides new sand and gravel for the nearshore zone and thus is the source of new material for beach and dune environments around the lake. Without a 'background' erosion rate, there would be no new sand and gravel to nourish the beaches and dunes along the shore." (Ibid. p. 60). Aerial photographs of heavily armored shorelines vs. unarmored shorelines along Lake Ontario substantiates the loss of beaches where bulkheads are constructed.

POLICY 17: NON-STRUCTURAL MEASURES TO MINIMIZE DAMAGE TO NATURAL RESOURCES AND PROPERTY FROM FLOODING AND EROSION SHALL BE USED WHENEVER POSSIBLE.

Policy # 17 requires the use of non-structural measures rather than structural measures to minimize damage to natural resources and property from flooding and erosion, whenever possible, where such measures are determined to offer sufficient protection. Construction of the revetment is a structural measure, not a non-structural measure. Non-structural measures include the siting of new and existing development away from natural protective features and flood and erosion hazards. Given that there are presently no upland structures in jeopardy from flood and erosion hazards, structural measures would not be necessary.

The stated purpose of the activity is to prevent erosion. The photographs submitted show that much of the bluff is vegetated and the beach area between the toe of the bluff and the lake is comprised of stones and small cobbles. The beach area, comprised of stone and small cobbles, is not highly susceptible to erosion under existing conditions. As noted, the shoreline recession has likely achieved an equilibrium. The photographs submitted with your consistency certification also show that the upland property is mowed lawn up to the edge of the bluff and that there is some erosion where vegetation has been lost. Planting more dense, substantial vegetation (such as woody shrubs instead of the herbaceous vegetation which currently exists) along the bluff and its upland edge would provide a higher degree of protection to the bluff, and is a non-structural measure identified in CMP Policy # 17.

Conclusion

Given the foregoing, and since the non-structural measures of planting native vegetation would minimize erosion that might be remaining in this un-structured area and construction of the revetment would result in increased erosion immediately in front of and generally downdrift of it, as well as impairments to sediment transport and functions of natural protective features, the proposed revetment and the excavation necessary to construct it would not be consistent with CMP policies #12, #14, and #17.

Alternatives

Pursuant to 15 CFR Part 930.63, the Department of State may identify alternatives, if they exist, which, if adopted by an applicant, may permit the proposed activity to be conducted in a manner consistent with the New York State Coastal Management Program. Given that there are no upland structures in jeopardy from hazards associated with flooding and erosion and there does not appear to be a need for the proposed activity, there does not appear to be a need for

implementing any alternatives to the proposed activity. However, if the applicants still feels the need to prevent erosion of the upland property, the planting of suitable, native vegetation along the bluff and its upland edge and maintaining a more densely vegetated buffer along the upland edge of the bluff is an available alternative that would be consistent with the New York Coastal Management Program.

If you can provide factual information documenting active erosion at this site, you may apply for review of a new consistency certification without prejudice.

Pursuant to 15 CFR Part 930, Subpart H, and within 30 days from receipt of this letter, you may request that the U.S. Secretary of Commerce (Secretary) override this objection. In order to grant an override request, the Secretary must find that these activities are consistent with the objectives or purposes of the Coastal Zone Management Act, or are necessary in the interest of national security. A copy of the request and supporting information must be sent to the New York Department of State and to the federal permitting or licensing agency. The Secretary may collect fees from you for administering and processing your request.

The appeal process can be a lengthy one, therefore, if you would like to continue discussions with this office while pursuing an appeal, please call Mr. Fred Anders at (518) 473-2477. If you or your client are represented by counsel, kindly have your attorney contact Mr. Anders for referral to our Legal Division.

Sincerely,

George R. Stafford
Deputy Secretary of State
Office of Coastal, Local Government
and Community Sustainability

c: OCRM - John King
COE/Buffalo - Diane Kozlowski; Amy Krueger
NYSDEC/Region 9 - David Denk, Bruno Dibella, Rebecca Anderson
Town of Wilson - Larry Banks