



Division of Environmental
Planning & Habitat Protection

COMMONWEALTH OF PENNSYLVANIA
Pennsylvania Game Commission

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*"To manage all wild birds, mammals and their habitats
for current and future generations."*

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***Re: CELRB-PM-EA Notice No. Conneaut-16: Operation and Maintenance Dredging and
Dredged Sediment Placement, Conneaut Harbor, Ashtabula County, OH***

Thank you for the opportunity to comment on the Army Corps of Engineers' (ACOE) proposed maintenance dredging of the Conneaut Harbor federal navigation channel as published on January 30, 2016 in the Pennsylvania Bulletin, Vo. 46, NO. 16. It is the responsibility of the Pennsylvania Coastal Resource Management Program (CRM) to review and determine consistency with the enforceable policies of the Commonwealth's approved Coastal Zone Management Plan under the Interstate Consistency regulations (15CFR Part 930). The Pennsylvania Game Commission (PGC) has elected to provide the following comments to the CRM to consider as part of its review.

The Pennsylvania Game Commission is the owner of approximately two miles of Lake Erie shoreline beginning at the Pennsylvania and Ohio border and is the longest stretch of undeveloped shoreline on the southern side of Lake Erie. The Pennsylvania Game Commission, is submitting these comments both as a Resource Agency responsible for birds and mammals and also as a landowner. We have concerns regarding the accelerated erosion rate and recession of the shoreline bluffs. The Erie County Natural Heritage Inventory Update, December 2012, lists the Lake Erie coastline Roderick Natural Heritage Area as a stretch of Lake Erie shoreline that supports six plant species of concern in Pennsylvania. The report also indicates that the rate of slumping on the bluffs is thought to have increased in recent decades due to reduced long shore sand transport. *"PNHP, 2012 Erie County Natural Heritage Inventory, Western Pennsylvania Conservancy, Pittsburgh PA"*

The Conneaut Harbor Structure in Ashtabula County, Ohio is located just over a mile to the west of the Ohio/Pennsylvania border along Lake Erie's southern shoreline. The harbor structure, which juts out into Lake Erie for a distance of approximately 5,000 feet, interrupts the west-to-east flow of littoral sediments along the shoreline resulting in sediment deposition on the up drift

side of the western wall or within the harbor itself. The western wall of the Conneaut Harbor structure also directs sediment offshore due to the deflection of prevailing longshore currents. The deflection of the long shore currents and the presence of the harbor structure results in a net loss of sediment within the shallow waters and currents immediately east of the harbor structure resulting in sediment-starved littoral system to the east of Conneaut Harbor along Pennsylvania's shoreline. The sediment load in the littoral currents appears to be replenished through depleting the sediment found along protective beaches along the base of the shoreline bluffs. The bluffs located along the western Pennsylvania shoreline are then more exposed to the erosional forces of the lake, resulting in substantially increased rates of erosion and bluff recession along this portion of PA's Lake Erie coastline.

The presence of the Conneaut Harbor structure and the lack of sufficient sediment bypassing the structure appears to be the major component contributing to substantial erosion losses on both public and private lands to the east in Pennsylvania. In order to minimize future damage to the shoreline and bluffs located east of Conneaut Harbor the Game Commission prefers the ACOE requires the contractor to deposit all suitable sediment dredged from the Conneaut Harbor channels into a shallow water environment (less than 4.6 feet) immediately east of the harbor structure. The placement of sediment in water at depths of less than 4.6 feet is consistent with previous studies completed by the ACOE which indicates that properly sized dredged sediment needs to be placed in less the 4.6 feet of water to replenish the sediment starved longshore current. Sediments placed at depths greater than 4.6 feet appear to be lost to near shore the littoral system and do not provide any protective measures for the coastline. Placing the sediment in the shallow depth of less than 4.6 feet will help minimize excessive bluff recession on State Game Lands 314 which has been identifies as the most severely impacted area of the Pennsylvania Lake Erie shoreline. Thank you for your consideration of our concerns and recommendation. This effort should ease current rates of bluff recession and restore some level of natural littoral drift directly east of Conneaut Harbor. We believe that these recommendations will provide a direct positive benefit by replenishing the littoral system and will act to minimize the rate of bluff erosion along southern Lake Erie shoreline in Pennsylvania.

Sincerely,



Michael R. DiMatteo, PG
Chief, Division of Environmental Planning and Habitat Protection
Bureau of Wildlife Habitat Management
Pennsylvania Game Commission