US Army Corps of Engineers
Philadelphia District
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice

Public Notice No.	Date
CENAP-OP-R-2008-1798	**June 20, 2019**
Application No.	File No.

In Reply Refer to:
REGULATORY BRANCH

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: Ocean County Mosquito Extermination Commission (OCMEC)
784 West Bay Avenue, P.O. Box 327
Barnegat, NJ 08005

WATERWAY: Wetlands bordering tidal waterways within Ocean County and including, or draining to, the Manasquan River, Metedeconk River, Barnegat Bay, Kettle Creek, Silver Bay, Toms River, Cedar Creek, Forked River, Manahawkin Bay, Little Egg Harbor Bay, Great Bay, and the Mullica River

LOCATION: Approximately 3,000 acres of tidal wetlands and wetland corridors along streams and ditches downstream of the head of tide located throughout Ocean County, New Jersey. Work associated with mosquito control would occur in the following municipalities: Barnegat, Barnegat Light, Bay Head, Beach Haven, Beachwood, Berkeley, Brick, Eagleswood, Harvey Cedars, Island Heights, Lacey, Lavallette, Little Egg Harbor, Long Beach, Mantoloking, Ocean, Ocean Gate, Pine Beach, Point Pleasant, Point Pleasant Beach, Seaside Heights, Seaside Park, Ship Bottom, South Toms River, Stafford, Surf City, Toms River, and Tuckerton.

ACTIVITY: Between 1980 and the present, this office has issued individual Department of the Army permits (CENAP-OP-R-197800282, 198400264, 198701703, 199202149, 199802708, 200301847, and 2008-1798), to the Ocean County Mosquito Extermination Commission (OCMEC) to continue performing mosquito control activities, including maintenance, in tidal wetlands and wetland corridors along streams and ditches downstream of the head of tide throughout Ocean County, New Jersey. The OCMEC has been using Open Marsh Water Management (OMWM) and other methods to control mosquitoes in Ocean County's tidal marshes since 1970. Such usage of OMWM methodologies are employed alongside applications of larvicidal compounds (insecticides) in order to manage mosquito populations. Information provided to this office indicates that by using this biologically-oriented control technique, OCMEC has reduced its applications of mosquito larvicides on Ocean County's tidal wetlands by more than 25%. Within marshes where OMWM has been applied,

the applicant has reported that larvicide use has decreased by nearly 100% and pesticide applications in upland and residential areas has declined nearly 100% since the OMWM program was initiated.

In addition to continued applications of larvicide, the OCMEC requests a ten year permit to continue maintaining the existing mosquito control ponds and ditches approved by the earlier permits. Such maintenance activities would largely involve the removal of sediment and debris from the ditches, creeks, and ponds, some currently non-functioning, by amphibious rotary excavator, specifically designed to shred the excavated material and broadcast it in a thin sheet over the surrounding marsh surface (3 inches or less). Other low-ground-pressure machinery used by OCMEC to conduct OMWM/maintenance operations would include a backhoe, bulldozer, and Kubota excavator.

Although the OCMEC largely proposes the on-going maintenance of existing marsh management facilities, they also wish to receive authorization for the future usage of OMWM techniques should the need arise. OCMEC would utilize the OMWM techniques described above only in tidal marshes which have been documented to breed mosquitoes. Marshes that do not breed mosquitoes would not be managed.

The latest permit issued under the subject action identification number (CENAP-OP-R-2008-1798) was issued July 20, 2009 and will expire on December 31, 2019.The New Jersey Department of Environmental Protection authorized the same such activities under waterfront development permit 1500-02-0001.1 (WFD 140001) issued March 9, 2015 and that permit will expire on March 8, 2020.

Several species of saltmarsh mosquitoes, including Aedes sollicitans, are closely associated with tidal marsh habitats. These habitats are composed of either relatively large depressional areas or areas of numerous small potholes on the surface of the marsh, and are usually characterized by dense vegetative stands of Spartina patens but may also be dominated by Phragmities australis. The adults of saltmarsh mosquito species deposit their eggs on the moist soil of these depressional and pothole areas. The mosquitoes remain in their egg stage in the soil of the depressions until a flooding event creates shallow pools of standing water on the marsh surface. This flooding of the marsh, resulting from either precipitation or higher than normal tides, provides the conditions necessary to allow the mosquito eggs to hatch into four larval stages, to pupate, and finally to emerge as mature, winged adults. The use of OMWM techniques is intended to reduce mosquito larvae populations by allowing natural mosquito-larvae predators such as killifish (Fundulus heteroclitus) to gain access to the mosquito breeding sites.

To achieve effective mosquito control under the OMWM program, each tidal marsh is first surveyed by OCMEC biologists to identify the depressional areas and determine their mosquito breeding potential. If mosquito breeding is found to be significant, a management plan to control the mosquitoes is then developed by the biologists using New Jersey's OMWM Guidelines. These guidelines were published in 1980 in the Proceedings of the Sixty Seventh Annual Meeting of the New Jersey Mosquito Control Association, entitled: The Establishment of Unified Open Marsh Water Management Standards in New Jersey. When working on Refuge lands of the U.S. Fish and Wildlife Service, OCMEC proposes to prepare its management plans in accordance with the U.S. Fish and Wildlife Service's Guidance for Meeting U.S. Fish and

Wildlife Service Trust Resources Needs When Conducting Coastal Marsh Management for Mosquito Control on Region 5 National Wildlife Refuges, (J. Taylor, 1998).

The primary mosquito control technique utilized in each OMWM management plan is the construction of small ponds. Most ponds are less than one-quarter acre in size and are designed with shallow side slopes and a deeper central reservoir in order to support stable populations of larvae-predaceous fish. Ponds are generally located in the center of a large depressional breeding area or in an area where a number of smaller depressions are concentrated. Associated with each pond is a series of ditches radiating from its center (pond radials). These radials allow the predaceous fish to gain access to the shallow, flooded surface of large marsh depressions and outlying smaller depressions. Other OMWM techniques employed to discourage mosquito breeding include: cleaning of selected grid ditches to encourage fish movement; creation of grid ditch plugs; filling of old grid-ditches and small depressions with pond spoils; and the construction of sill ditches. Sill ditches are designed to promote tidal water exchange with the marsh surface without lowering the water table of the marsh soil. Similar to maintenance activities described above, ponds and radials are typically excavated using an amphibious rotary excavator, specifically designed to shred the excavated material and broadcast it in a thin sheet over the surrounding marsh surface (3 inches or less). Other low-ground-pressure machinery used by OCMEC to conduct OMWM operations include a backhoe, bulldozer, and Kubota excavator.

PURPOSE: The applicant's stated purpose is to provide a permanent control of mosquito breeding, coexistent with wildlife use and production, while lessening the use of mosquito larvicides and enhancing the tidal food chain.

The USACE Cultural Resource Specialist has determined the permit area may yield resources eligible for inclusion in the National Register of Historic Places (NRHP). An investigation for the presence of potentially eligible historic properties may be required. A determination of effects will be coordinated with the State Historic Preservation Office, Native American Tribes, and other consulting parties as required.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act 1996 (Public Law 104-267), requires all federal agencies to consult with the NOAA Fisheries all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). A preliminary review of this application indicates that EFH is present within the project area. The Philadelphia District will evaluate the potential effects of the proposed actions on EFH and will consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

As the proposed activity would not result in the loss of aquatic resources, including wetlands, no compensatory mitigation is indicated pursuant to 33 CFR 325 and 33 CFR 332.

OMWM has proven to be effective over many years, and special conditions to permits have provided for continued protection of various environmental resources. Furthermore, the areas of proposed work, the proposed methodology and equipment to be used and the proposed times of performing work remain unchanged from those of the currently valid permit authorization. As such it has been determined that it is appropriate to consider a ten (10) year permitting period for

the proposed OMWM activities. Provided there are no substantive objections, any Department of the Army (DOA) permit authorization that may be issued would be for a ten (10) year period and would be conditioned, as is the current permit authorization, to insure no more than minimal adverse effects to the aquatic environment. A project by project basis coordination would occur with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, Region II and, where appropriate, National Parks Service, prior to the commencement of work. Also, written authorization from the U. S. Army Corps, Philadelphia District would be required on a project by project basis, following such agency coordination.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Program. Coastal Zone Management consistency concurrence is necessary from the State government in which the work is located. The State of New Jersey, Department of Environmental Protection issued its Waterfront Development Permit (1500-02-0001.1 WFD 140001) with such concurrence in on March 9, 2015 to the OCMEC to conduct open water marsh management in coastal wetland areas for the sole purpose of reducing mosquito-breeding habitat. The expiration date of the State permit is March 8, 2020. After that date, no DA permit shall be considered valid until the State has maintained its concurrence with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. The State of New Jersey, Department of Environmental Protection issued its Waterfront Development Permit (1500-02-0001.1 WFD 140001) with Water Quality Certificate (WQC) on March 9, 2015 to the OCMEC to conduct open water marsh management in coastal wetland areas for the sole purpose of reducing mosquito-breeding habitat. The expiration date of the State permit is March 8, 2020. After that date, no DA permit shall be considered valid until the State has re-issued its WQC or has waived its right to do so.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

A preliminary review of this application indicates that the proposed work would not affect listed species or their critical habitat pursuant to Section 7 of the Endangered Species Act as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be

considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

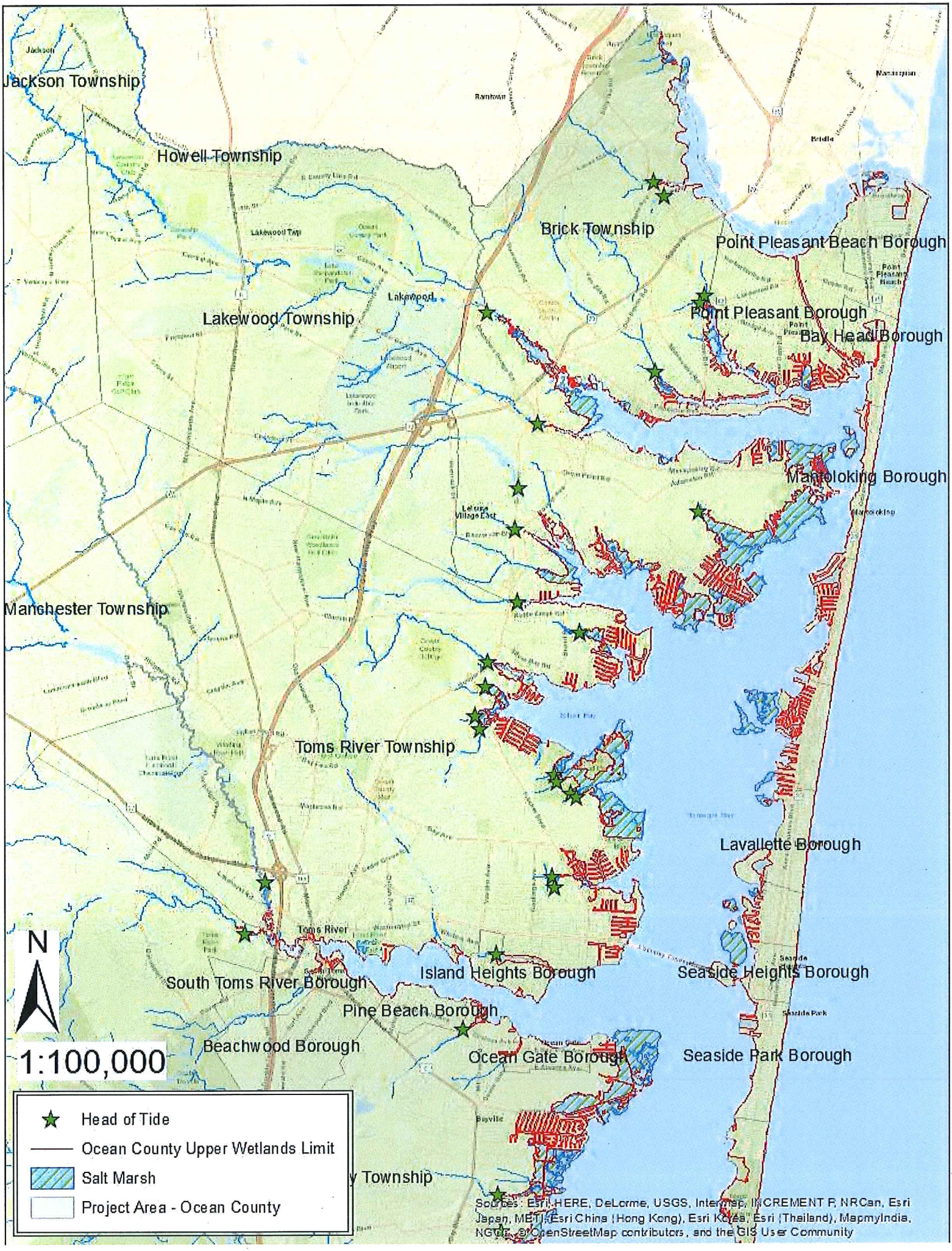
The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the proposed work should be submitted, in writing, within 30 days to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by calling David J. Caplan at 215-656-6731 or writing this office at the above address.

Edward E. Bonner
Chief, Regulatory Branch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Manchester Township
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Project Area - Ocean County
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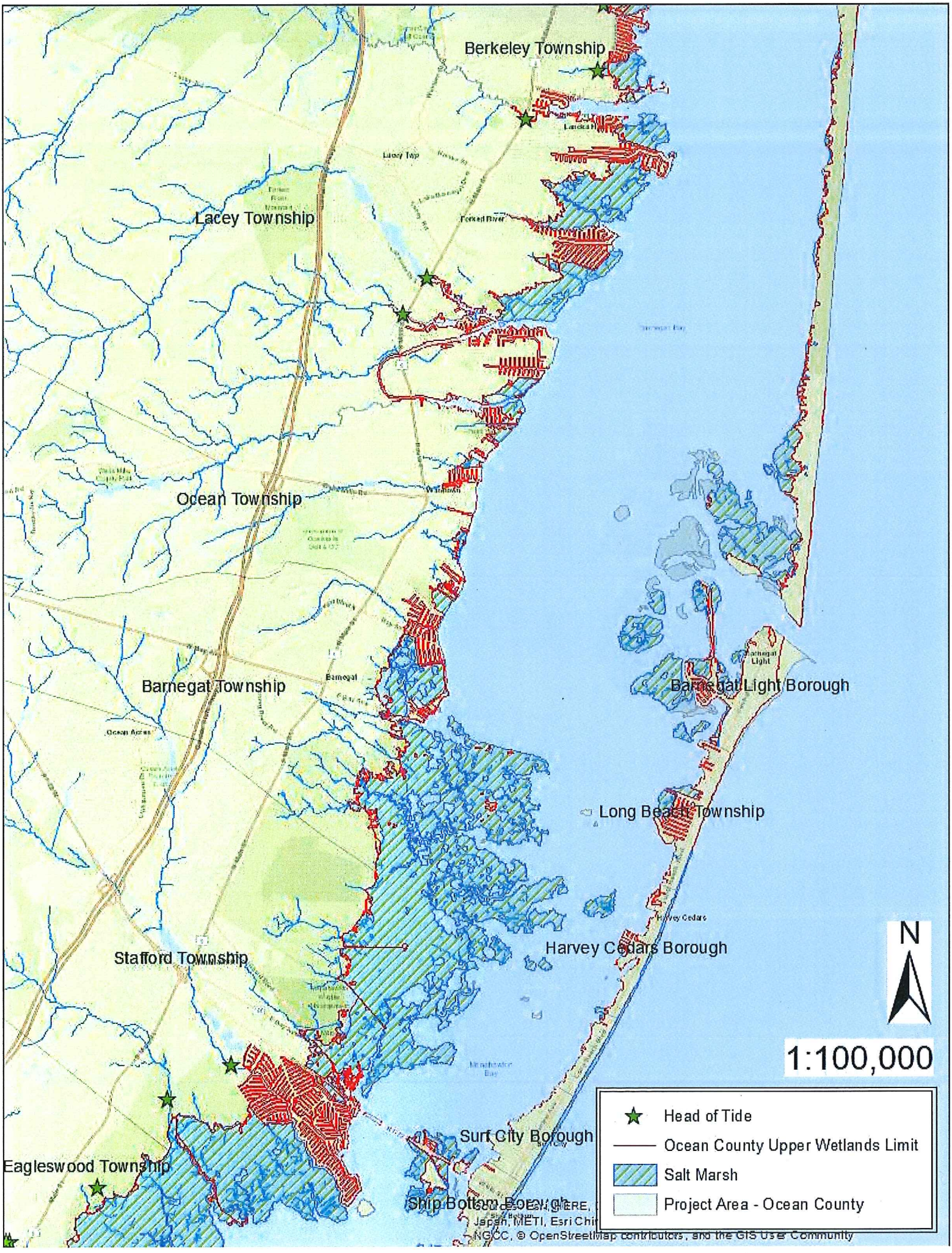
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community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Long Beach Township
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Stafford Township
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Eagleswood Township
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Ocean County Upper Wetlands Limit
Salt Marsh
Project Area - Ocean County
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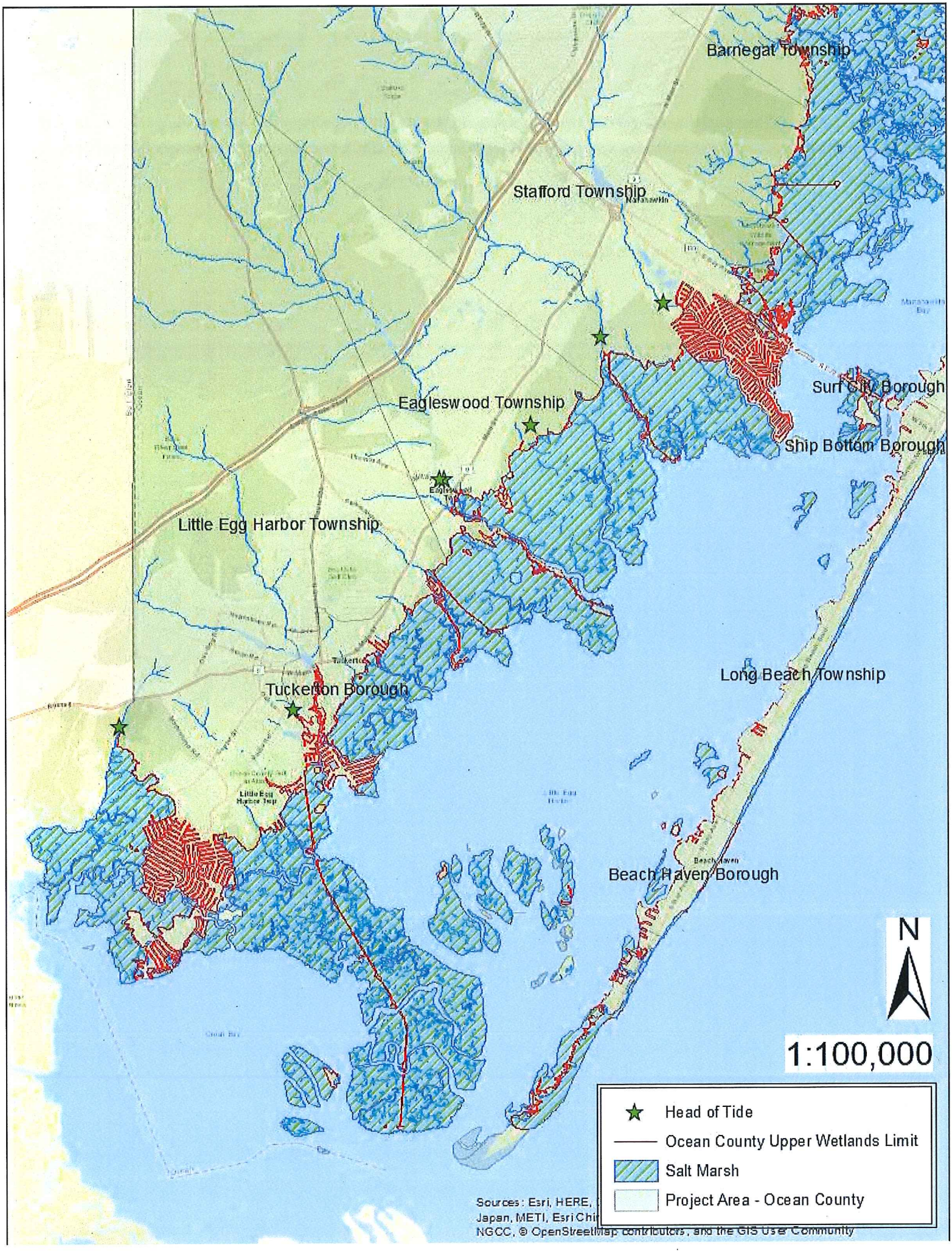
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Project Area - Ocean County
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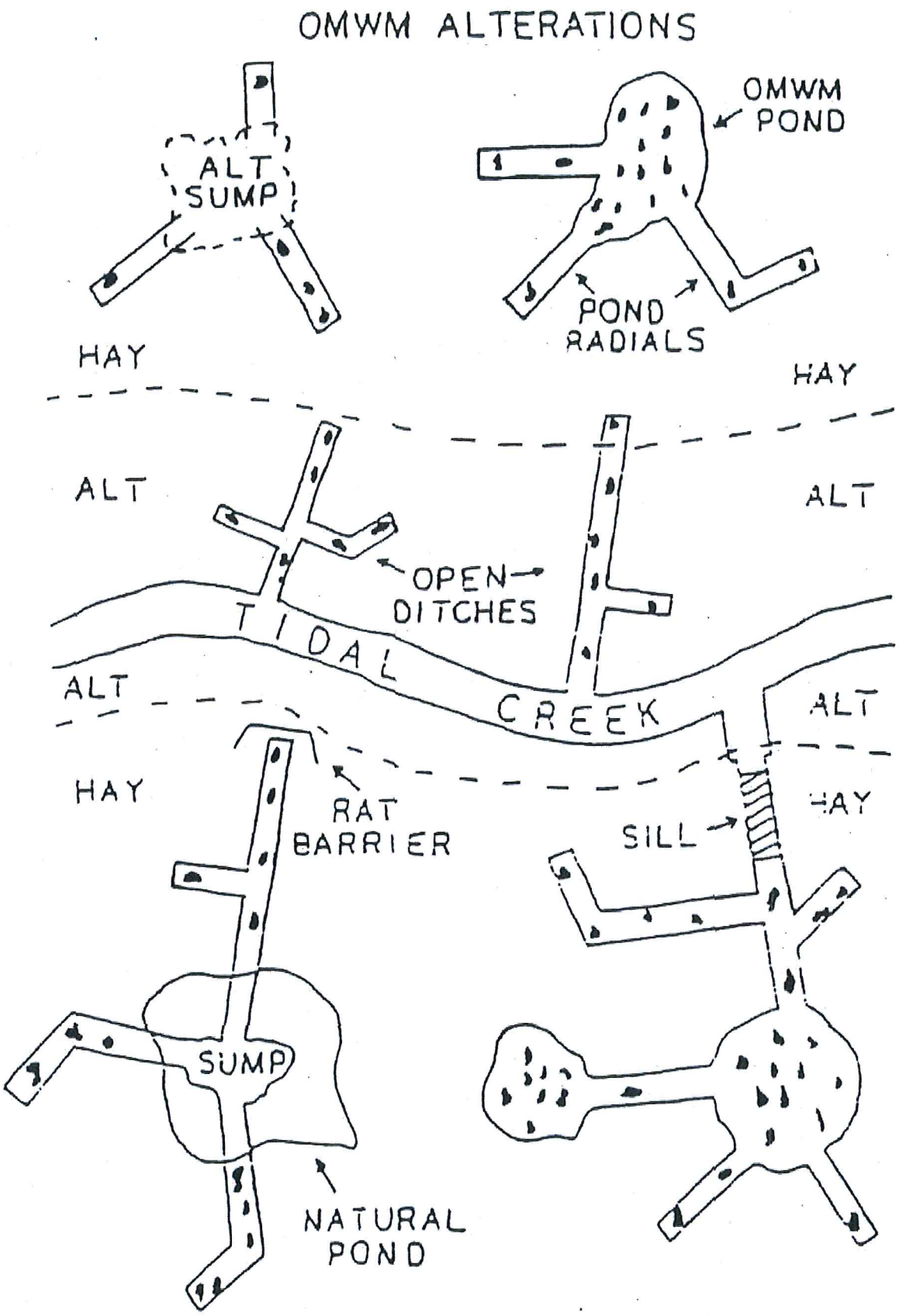

Figure 2. Various marsh excavations and alterations used in the OMWM technique. The darkened spots represent former mosquito-breeding depressions.

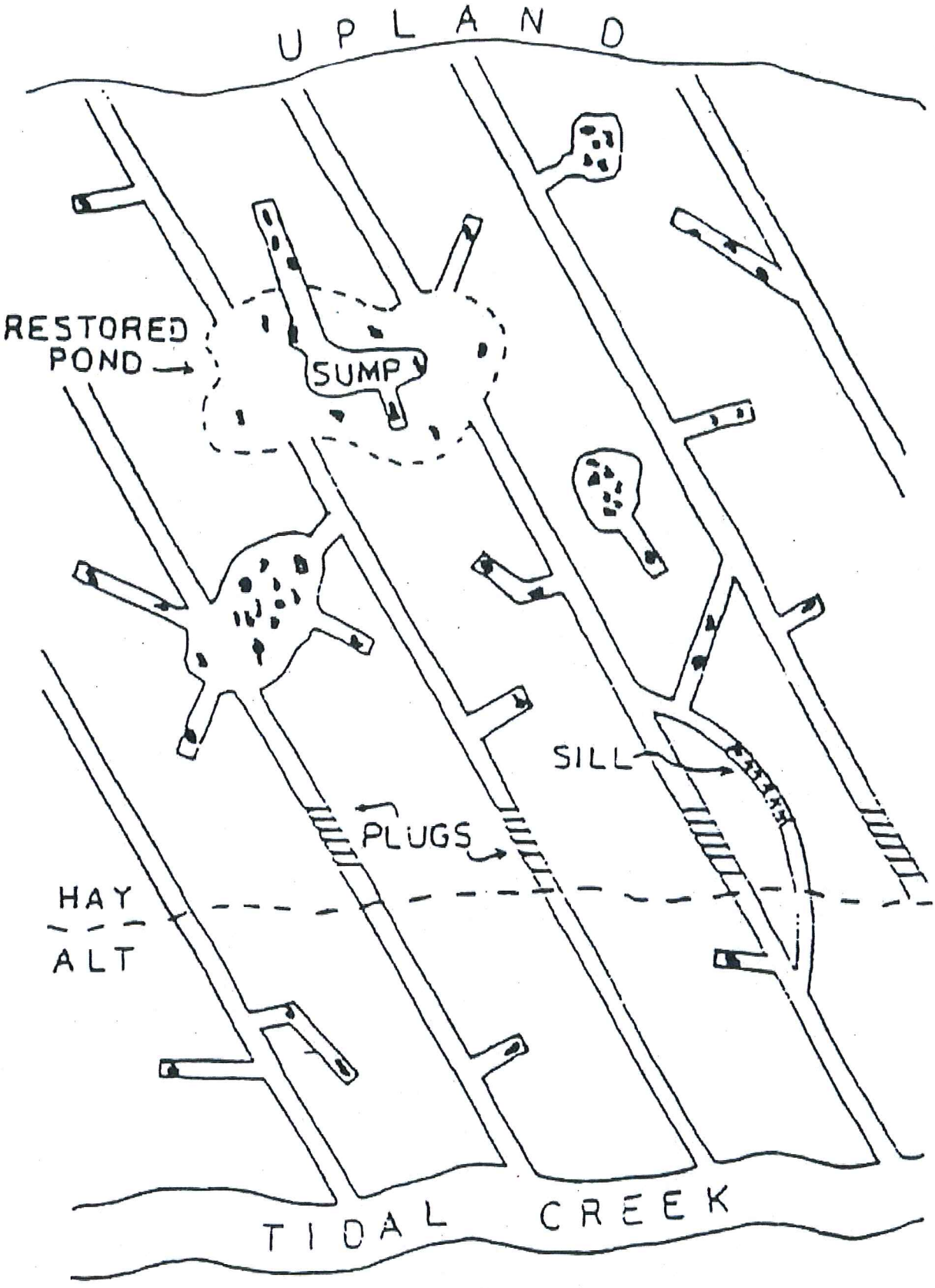

Figure 3. An OMWM system superimposed over a previously parallel-grid ditched marsh. The darkened spots represent former mosquito-breeding depressions.