

**U.S. Army Corps
of Engineers
Baltimore District**

Public Notice

In Reply to Application Number
CENAB-OP-RMS (Fowlkes, Hobart V. & Mumford, George T.
/Aquaculture Leases) 2014-00147

PN 15-25

Comment Period: April 2, 2015 to May 2, 2015

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC ABOUT THE APPLICATION REFERENCED ABOVE. AT THIS TIME, NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED.

The Baltimore District has received 6 applications from Mr Hobart V. Folkes & Mr George T. Mumford for Department of the Army authorizations pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act as described below:

APPLICANTS: Mr. Hobart V. Fowlkes
7308 Brightside Road
Baltimore, Maryland 21212

Mr. George T. Mumford
1800 Indian Head Road
Baltimore, Maryland 21204

LOCATION: The projects are proposed in the Nanticoke River near Nanticoke, Wicomico County, and near Sandy Island, Dorchester County, Maryland.

DESCRIPTION OF WORK: To establish, operate, and maintain aquaculture operations within 6 oyster aquaculture cultivation sites totaling approximately 299.2 acres by depositing oyster shell, with or without spat on shell a maximum of 6 inches in most areas and up to 12 inches in low spots within the proposed sites, without predator controls (e.g. nets, etcetera), on the bottom substrate. The sites are composed of a mixture of shell, sand, and silt substrate throughout the project areas and would be used for purposes of culturing native Eastern Oyster (*Crassostrea virginica*) on the proposed bottom lease sites.

The applicants have advised that the proposed project sites would be subject to periodic harrowing, dragging and additional deposition of oyster shells, as needed, to maintain the site. Harvesting would be accomplished by dredging or other harvesting means as approved by the Maryland Department of Natural Resources (MD DNR). Staging and off-loading would be at the Nanticoke Harbor off Harbor Road in Nanticoke, Wicomico County, Maryland. The primary source for the oyster seed would be supplied by the University of Maryland Center for Environmental Science (UMCES) Horn Point Laboratory in Dorchester County, Maryland. Each of the sites would be marked by bamboo stakes at the corners with the name and lease number identified on a 14-inch by 16-inch board.

Area 1: The project site which has been identified as MDNR submerged land lease application number 141 is an approximate 65.9 acre area located a minimum of 2,554 feet channelward of the approximate mean high water (MHW) shoreline and a maximum of 6,663 feet channelward of the approximate MHW shoreline. Water depths within the project site varies from -5.0 feet to -7.0 feet at mean lower low water (MLLW), depending on the location within the project area, and the applicant's plans identify a minimum vertical clearance of -5.0 feet at MLLW above the finished grade/elevation of the oyster shell after deposition. This project site will be reviewed and evaluated

by the Corps as an Individual Permit. The coordinates for Area 1 in Dorchester County are as follows:

Corner	Latitude	Longitude
1	38° 15' 6.0" N	75° 56' 4.2" W
2	38° 15' 15.8" N	75° 56' 18.3" W
3	38° 15' 28.0" N	75° 56' 13.8" W
4	38° 15' 33.8" N	75° 56' 14.5" W
5	38° 15' 30.5" N	75° 56' 4.8" W
6	38° 15' 25.1" N	75° 56' 4.6" W
7	38° 15' 35.5" N	75° 55' 59.0" W
8	38° 15' 22.6" N	75° 55' 57.6" W

Area 2: The project site which has been identified as MDNR submerged land lease application number 139 is an approximate 135.2 acre area located a minimum of 1,912 feet channelward of the approximate mean high water (MHW) shoreline and a maximum of 4,763 feet channelward of the approximate MHW shoreline. Water depths within the project site varies from -4.25 feet to -12.25 feet at mean lower low water (MLLW), depending on the location within the project area, and the applicant's plans identify a minimum vertical clearance of -4.25 feet at MLLW above the finished grade/elevation of the oyster shell after deposition. This project site will be reviewed and evaluated by the Corps as an Individual Permit. The coordinates for Area 2 in Dorchester County are as follows:

Corner	Latitude	Longitude
1	38° 13' 47.3" N	75° 56' 9.3" W
2	38° 13' 49.6" N	75° 56' 24.7" W
3	38° 14' 14.5" N	75° 56' 20.2" W
4	38° 14' 11.2" N	75° 56' 6.0" W
5	38° 14' 20.1" N	75° 56' 2.8" W
6	38° 14' 23.3" N	75° 56' 16.1" W
7	38° 14' 32.1" N	75° 56' 10.1" W
8	38° 14' 33.2" N	75° 56' 1.9" W
9	38° 14' 30.6" N	75° 55' 51.8" W

Area 3: The project site which has been identified as MDNR submerged land lease application number 136 is an approximate 13.6 acre area located a minimum of 1,750 feet channelward of the approximate mean high water (MHW) shoreline and a maximum of 3,168 feet channelward of the approximate MHW shoreline. Water depths within the project site varies from -4.75 feet to -9.75 feet at mean lower low water (MLLW), depending on the location within the project area, and the applicant's plans identify a minimum vertical clearance of -4.75 feet at MLLW above the finished grade/elevation of the oyster shell after deposition. This project site will be reviewed and evaluated by the Corps as an Aquaculture Regional General Permit-1. The coordinates for Area 3 in Dorchester County are as follows:

Corner	Latitude	Longitude
1	38° 14' 52.3" N	75° 55' 57.1" W
2	38° 14' 54.4" N	75° 56' 8.1" W
3	38° 15' 1.5" N	75° 56' 2.0" W
4	38° 14' 59.3" N	75° 55' 54.7" W

Area 4: The project site which has been identified as MDNR submerged land lease application number 135 is an approximate 12.0 acre area located a minimum of 191 feet channelward of the approximate mean high water (MHW) shoreline and a maximum of 1,279 feet channelward of the approximate MHW shoreline. Water depths within the project site varies from -4.5 feet to -6.0 feet at mean lower low water (MLLW), depending on the location within the project area, and the applicant's plans identify a minimum vertical clearance of -4.5 feet at MLLW above the finished grade/elevation of the oyster shell after deposition. This project site will be reviewed and evaluated by the Corps as an Aquaculture Regional General Permit-1. The coordinates for Area 4 in Wicomico County are as follows:

Corner	Latitude	Longitude
1	38° 16' 1.3" N	75° 55' 3.1" W
2	38° 16' 3.1" N	75° 55' 6.7" W
3	38° 16' 12.6" N	75° 54' 58.9" W
4	38° 16' 11.6" N	75° 54' 52.1" W

Area 5: The project site which has been identified as MDNR submerged land lease application number 137 is an approximate 39.3 acre area located a minimum of 1,514 feet channelward of the approximate mean high water (MHW) shoreline and a maximum of 3,469 feet channelward of the approximate MHW shoreline. Water depths within the project site varies from -6.5 feet to -8.5 feet at mean lower low water (MLLW), depending on the location within the project area, and the applicant's plans identify a minimum vertical clearance of -6.5 feet at MLLW above the finished grade/elevation of the oyster shell after deposition. This project site will be reviewed and evaluated by the Corps as an Aquaculture Regional General Permit-1. The coordinates for Area 5 in Wicomico County are as follows:

Corner	Latitude	Longitude
1	38° 15' 4.4" N	75° 54' 51.0" W
2	38° 15' 4.2" N	75° 55' 10.2" W
3	38° 15' 16.0" N	75° 55' 6.4" W
4	38° 15' 16.6" N	75° 54' 58.4" W
5	38° 15' 16.4" N	75° 54' 50.4" W

Area 6: This project site which has been identified as MDNR submerged land lease application number 138, is an approximate 33.2 acre area located a minimum of 543 feet channelward of the approximate mean high water (MHW) shoreline and a maximum of 2,603 feet channelward of the approximate MHW shoreline. Water depths within the project site varies from -3.75 feet to -6.75 feet at mean lower low water (MLLW), depending on the location within the project area, and the applicant's plans identify a minimum vertical clearance of -3.75 feet at MLLW above the finished grade/elevation of the oyster shell after deposition. This project site will be reviewed and evaluated by the Corps as an Aquaculture Regional General Permit-1. The coordinates for Area 6 in Wicomico County are as follows:

Corner	Latitude	Longitude
1	38° 15' 23.5" N	75° 55' 6.5" W
2	38° 15' 27.7" N	75° 55' 5.2" W
3	38° 15' 35.9" N	75° 55' 7.7" W
4	38° 15' 40.7" N	75° 55' 8.7" W
5	38° 15' 37.5" N	75° 54' 57.6" W
6	38° 15' 23.6" N	75° 54' 52.0" W

The purpose of the proposed projects are to establish areas of suitable substrate for the commercial production of oyster shellfish to marketable size.

As part of the planning process for the proposed projects, steps were taken to ensure avoidance and minimization of impacts to aquatic resources to the maximum extent practicable. These areas were chosen to minimize potential impacts to submerged aquatic vegetation (SAV) and navigation. According to the Virginia Institute of Marine Science (VIMS) survey maps, there is no SAV mapped within the project footprint of the proposed aquaculture operation for years 2008 through 2012. However, there is a small area of SAV in a cove of Sandy Island, which is a substantial distance to the southwest of the aquaculture sites. No mitigation measures are proposed by the applicant.

Note: *In accordance with 33 CFR 325.3(a) (13), the Corps is providing, by this Public Notice, the following additional information to assist interested parties in their review of this application on factors affecting the public interest.*

The Corps is also reviewing 10 additional oyster aquaculture cultivation projects, (see overview plans) that involve approximately 274.5 acres in the Nanticoke River, proposed by others in the vicinity of this application. These 10 projects, as well as 4 of the applicant's projects as described above, will be reviewed and evaluated by the Corps under the Aquaculture Regional General Permit-1. Therefore, the Corps will be reviewing and evaluating 16 oyster aquaculture cultivation sites in the Nanticoke River totaling approximately 573.7 acres under both the Aquaculture Regional General Permit -1 and Corps' Individual Permit process.

All work will be completed in accordance with the enclosed plan(s). If you have any questions concerning this matter, please contact Mr. Eugene Morgenthaler of this office at 410-820-8629 or by email at eugene.j.morgenthaler@usace.army.mil

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH).

The project site lies in or adjacent to EFH as described under MSFCMA for Windowpane Flounder (*Scopthalmus aquosus*) () juvenile and adult; Bluefish (*Pomatomus saltatrix*) juvenile and adult; Summer Flounder (*Paralichthys dentatus*) larvae, juvenile, and adult; and for King Mackerel (*Scomberomorus cavalla*), Spanish Mackerel (*Scomberomorus maculatus*), Cobia (*Rachycentron canadum*) and Red Drum (*Sciaenops ocellatus*) egg, larvae, juvenile, and adult, all managed species under the MSFCMA.

The project has the potential to adversely affect EFH or the species of concern by the alteration of spawning, nursery, forage and/or shelter habitat as described under the MSFCMA for the species and life stages identified above. This habitat consists of a mostly sand and shell substrate which does not support SAV. The Baltimore District has made a preliminary determination that site-specific impacts would not be substantial and an abbreviated consultation will be conducted with NMFS. No mitigative measures are recommended at this time to minimize adverse effects on EFH. This preliminary determination may be modified if additional information indicates otherwise and could change the Corps' preliminary determination.

WATER QUALITY CERTIFICATION: The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act from the **Maryland Department of the Environment**. Any written comments concerning the work described above which relate to water quality certification must be received by the Wetlands and Waterways

Program, Maryland Department of the Environment, Montgomery Park Business Center, 1800 Washington Boulevard, Suite 430, Baltimore, Maryland 21230-1708 within the comment period as specified above to receive consideration. The Section 401 certifying agency has a statutory limit of one year from the date of this public notice to make its decision.

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonable may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economic, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, and consideration of property ownership and in general, the needs and welfare of the people.

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 provided will become part of the public record for this action. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the District Engineer, U.S. Army Corps of Engineers, Baltimore District, P.O. Box 1715, Baltimore, Maryland, 21203 within the comment period specified above.

Where applicable, the applicant has certified in this application that the proposed activity complies with and will be conducted in a manner consistent with the approved Coastal Zone Management (CZM) Program. By this public notice, we are requesting the State concurrence or objection to the applicant's consistency statement. It should be noted that the CZM Program has a statutory limit of 6 months to make its consistency determination.

The applicant must obtain any State or local government permits which may be required.

A preliminary review of this application indicates that the proposed work may affect Federal listed threatened or endangered species or their critical habitat, pursuant to Section 7 of the Endangered Species Act, as amended. The project location and vicinity is not mapped as critical habitat for any known Federally-listed threatened or endangered species; however, the waterway is known to be utilized by transient individuals of the following species: Loggerhead sea turtles (*Caretta caretta*); Kemp's Ridley sea turtles (*Lepidochelys kempii*); Leatherback sea turtles (*Dermochelys coriacea*); Green sea turtles (*Chelonia mydas*); Shortnose sturgeon (*Acipenser brevirostrum*); and Atlantic sturgeon (*Acipenser oxyrinchus*). The Baltimore District will initiate informal consultation under Section 7(a)(2) of the ESA. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

Review of the latest published version of the National Register of Historic Places indicates that no registered properties listed as eligible for inclusion, therein, are located at the site of the proposed work. Currently unknown archeological, scientific, prehistoric, or historical data may be lost or destroyed by the work to be accomplished under the request permit.

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 of the Clean Water Act.






Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The District Engineer must receive the request, which must be in writing, US Army Corps of Engineers, Baltimore District, PO Box 1715, Baltimore, Maryland 21203-1715, within the comment period as specified as above to receive consideration. Also, it must clearly state forth the interest that may be adversely affected by this activity in the manner in which the interest may be adversely affected.

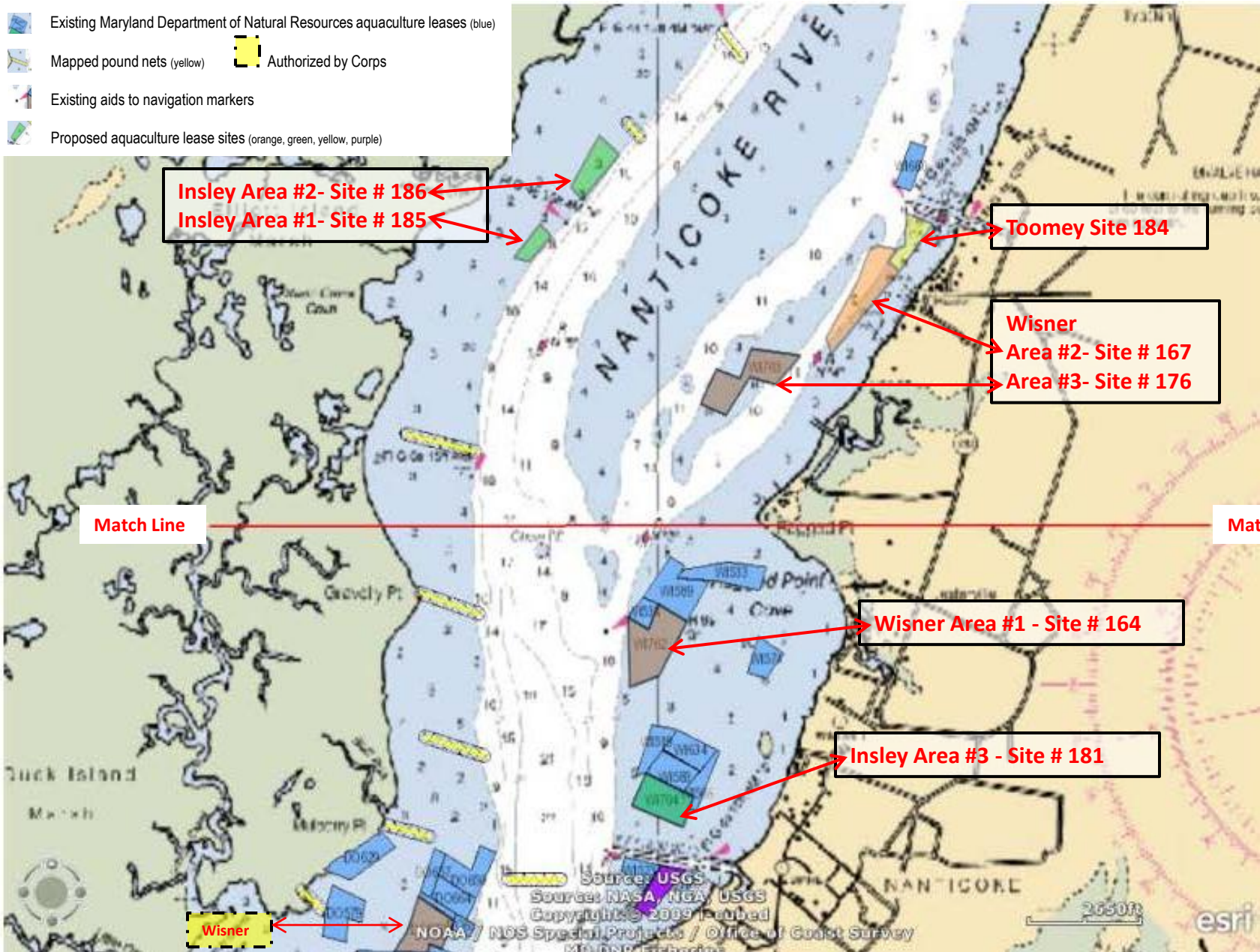
It is requested that you communicate this information concerning the proposed work to any persons known by you to be interested and not being known to this office, who did not receive a copy of this notice.

FOR THE DISTRICT ENGINEER:

KATHY B. ANDERSON
Chief, Maryland Section Southern

Northern Nanticoke River Comprehensive Overview Plan for Lease Applications

-  Existing Maryland Department of Natural Resources aquaculture leases (blue)
-  Mapped pound nets (yellow)
-  Existing aids to navigation markers
-  Proposed aquaculture lease sites (orange, green, yellow, purple)
-  Authorized by Corps



Insley Area #2- Site # 186
Insley Area #1- Site # 185

Toomey Site 184

Wisner
Area #2- Site # 167
Area #3- Site # 176

Match Line

Match Line

Wisner Area #1 - Site # 164

Insley Area #3 - Site # 181

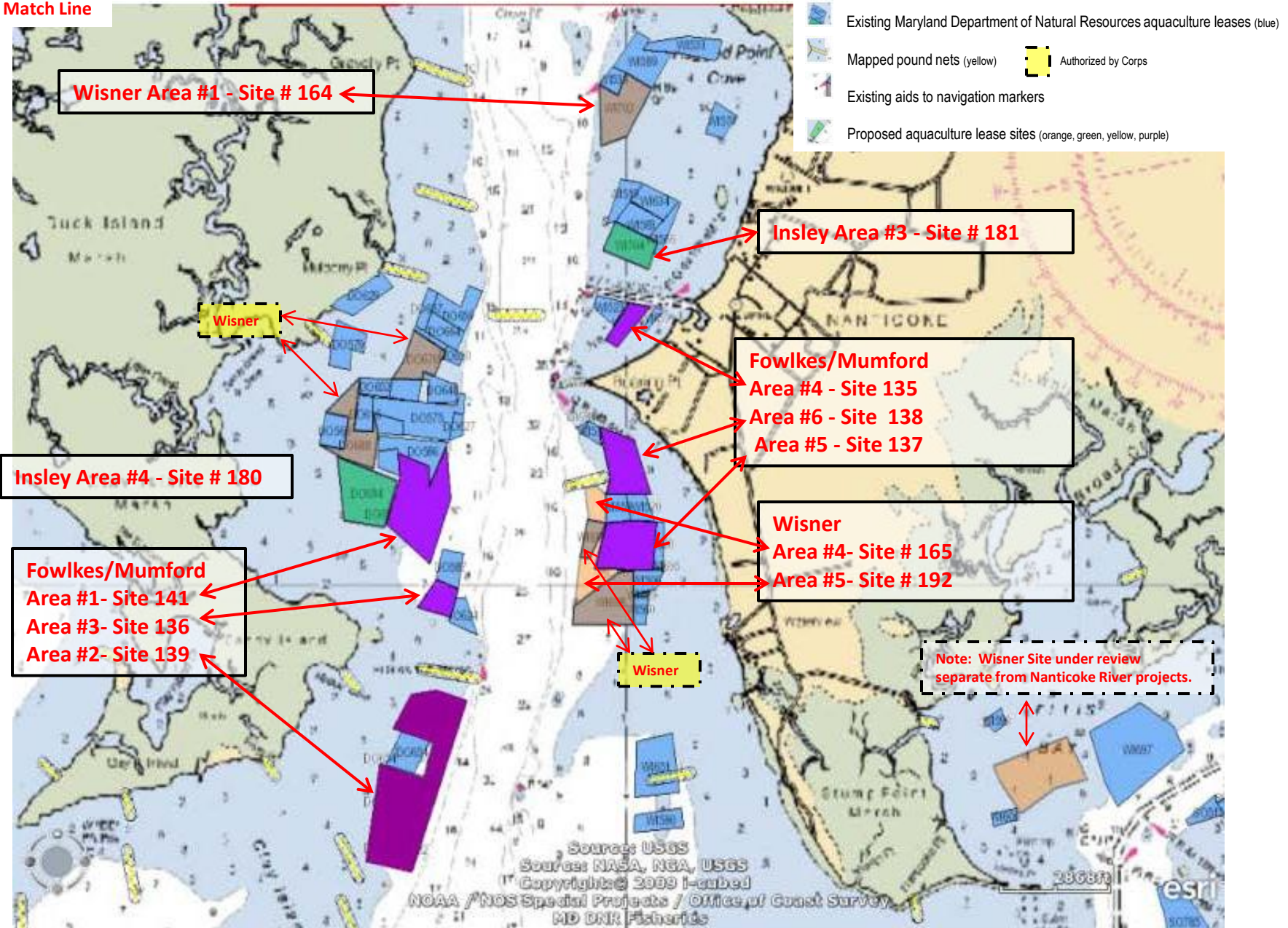
Wisner

Source: USGS
 Source: NASA, NOAA, USGS
 Copyright © 2009 ESRI
 NOAA / NOS Special Projects / Office of Coast Survey

2650ft
 esri

Southern Nanticoke River Comprehensive Overview Plan for Lease Applications

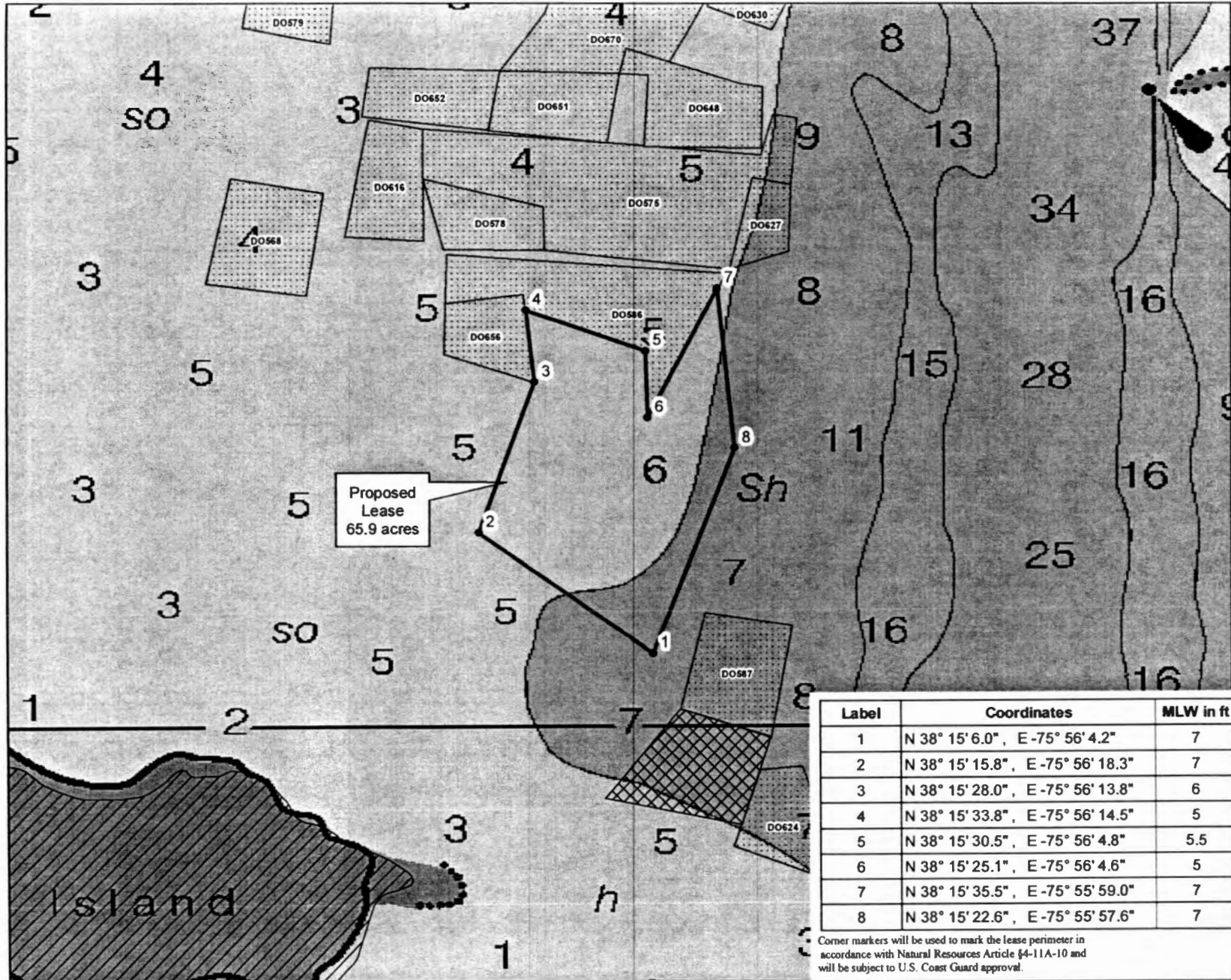
Match Line



Proposed Shellfish Submerged Lease NAV Chart Map

Hobart V. Fowlkes and George T. Mumford - Nanticoke River, Dorchester County Maryland

AREA 1



Lease Area shown over NOAA Raster Navigational Charts.

- Proposed Lease
- Sanctuaries and Refuges (state, federal, private, etc)
- Submerged Aquatic Vegetation (VMS)
- Structures (Piers, Marinas, etc)
- Wetlands of Special State Concern (MD-DNR)
- Active Shellfish Lease
- Proposed Shellfish Lease
- Tidal Wetlands (NWI Wetlands)



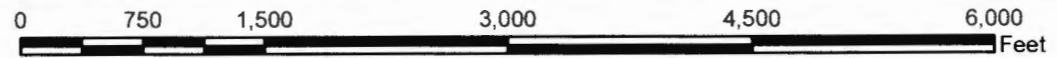
Martin O'Malley
Governor
Anthony G. Brown
Lt. Governor
Joseph P. Gill
Secretary

Label	Coordinates	MLW in ft
1	N 38° 15' 6.0", E -75° 56' 4.2"	7
2	N 38° 15' 15.8", E -75° 56' 18.3"	7
3	N 38° 15' 28.0", E -75° 56' 13.8"	6
4	N 38° 15' 33.8", E -75° 56' 14.5"	5
5	N 38° 15' 30.5", E -75° 56' 4.8"	5.5
6	N 38° 15' 25.1", E -75° 56' 4.6"	5
7	N 38° 15' 35.5", E -75° 55' 59.0"	7
8	N 38° 15' 22.6", E -75° 55' 57.6"	7

Corner markers will be used to mark the lease perimeter in accordance with Natural Resources Article §4-11A-10 and will be subject to U.S. Coast Guard approval.



Maryland Department of Natural Resources
 Geospatial Information and Analysis
 580 Taylor Ave. E-2 Annapolis, MD 21401
 410-260-8985 or 1-877-620-DNR x8985
 dnr.maryland.gov
 DNR March 2014



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Cross-Section Diagram for Proposed Submerged Land Lease 141

Name: Hobart V. Fowlkes & George T. Mumford
 Town, State: Nanticoke, MD
 Waterbody: Nanticoke River
 Date: March 2014



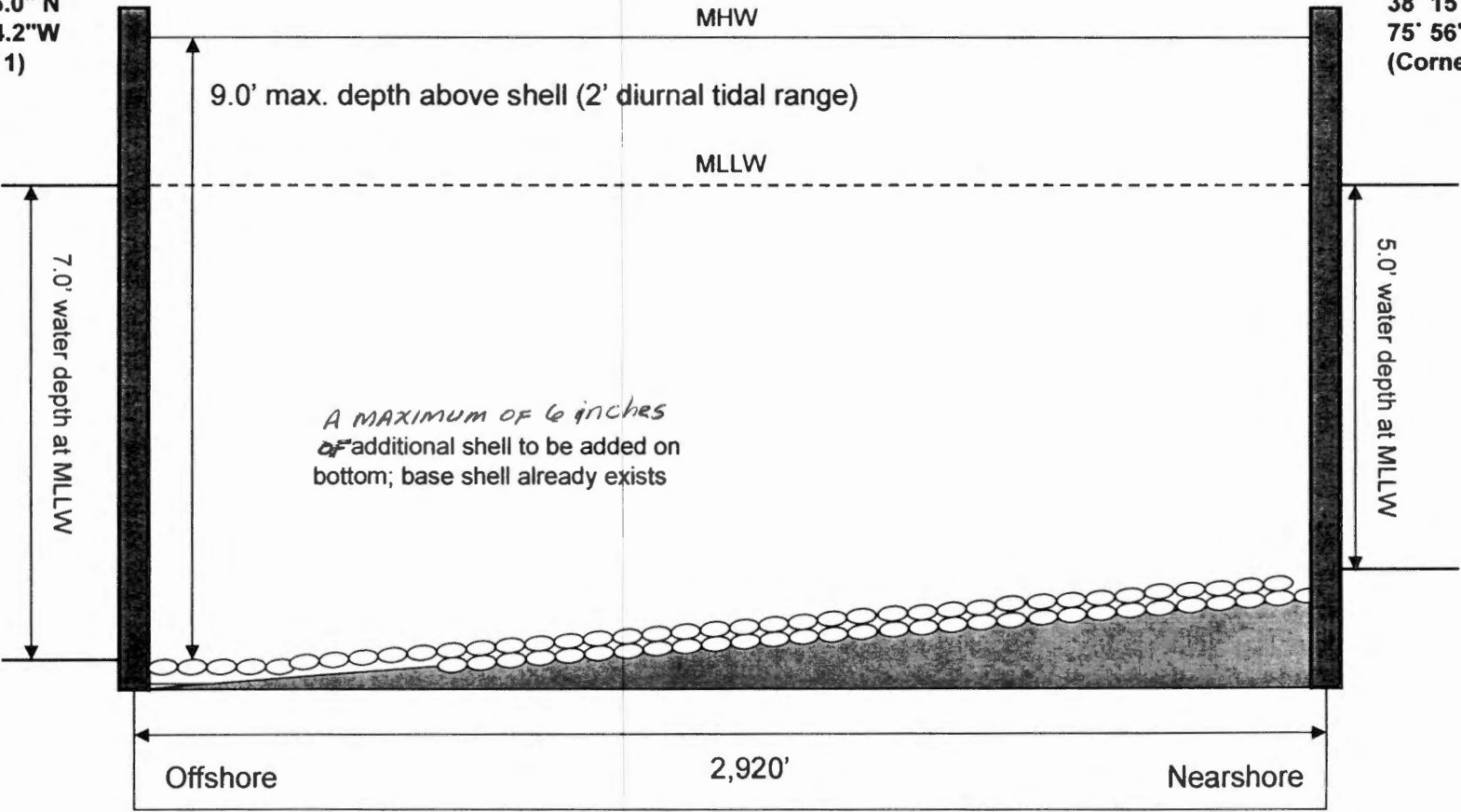
Bamboo stakes marked with name and lease # on 16"x14" board

MHW = mean high water

MLLW = mean lower low water

38° 15' 6.0" N
 75° 56' 4.2" W
 (Corner 1)

38° 15' 33.8" N
 75° 56' 14.5" W
 (Corner 4)

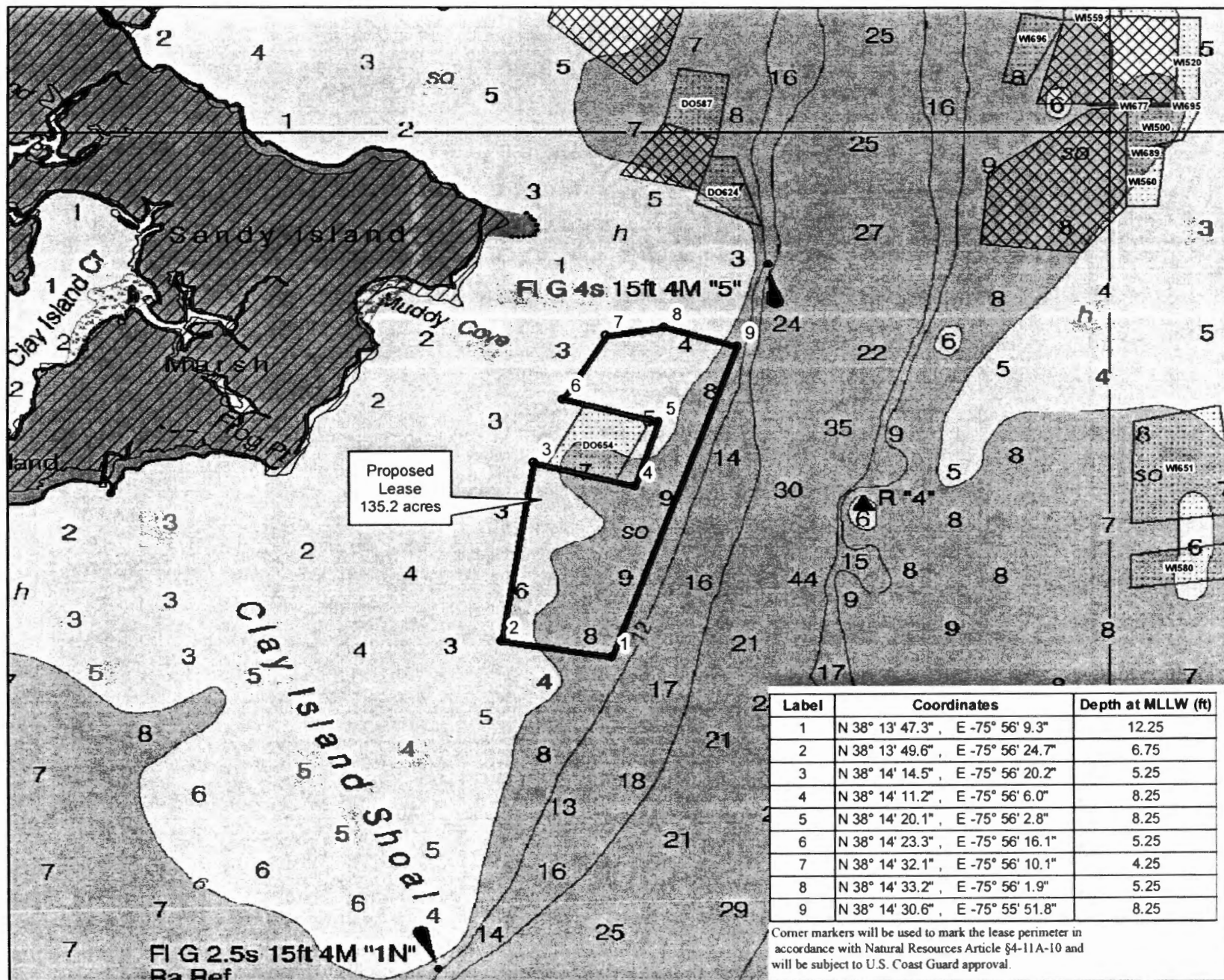


ITC

Proposed Shellfish Submerged Lease NAV Chart Map

Hobart V. Fowlkes and George T. Mumford - Nanticoke River, Dorchester County Maryland

AREA 2



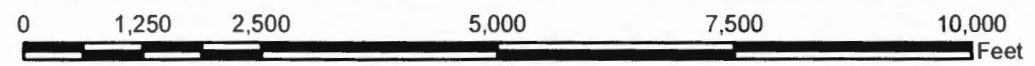
- Lease Area shown over NOAA Raster Navigational Charts.
- Proposed Lease
 - Sanctuaries and Refuges (state, federal, private, etc)
 - Submerged Aquatic Vegetation (VIMS)
 - Structures (Piers, Marinas, etc)
 - Wetlands of Special State Concern (MD-DNR)
 - Active Shellfish Lease
 - Proposed Shellfish Lease
 - Tidal Wetlands (NWI Wetlands)



Martin O'Malley
Governor
Anthony G. Brown
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 410-261-8985 or 1-877-620-DNR x8985
 dnr.maryland.gov
 DNR January 2014



Tib.

Cross-Section Diagram for Proposed Submerged Land Lease 139 1 of 2

Name: Hobart V. Fowlkes & George T. Mumford
Town, State: Nanticoke, MD
Waterbody: Nanticoke River
Date: February 2014



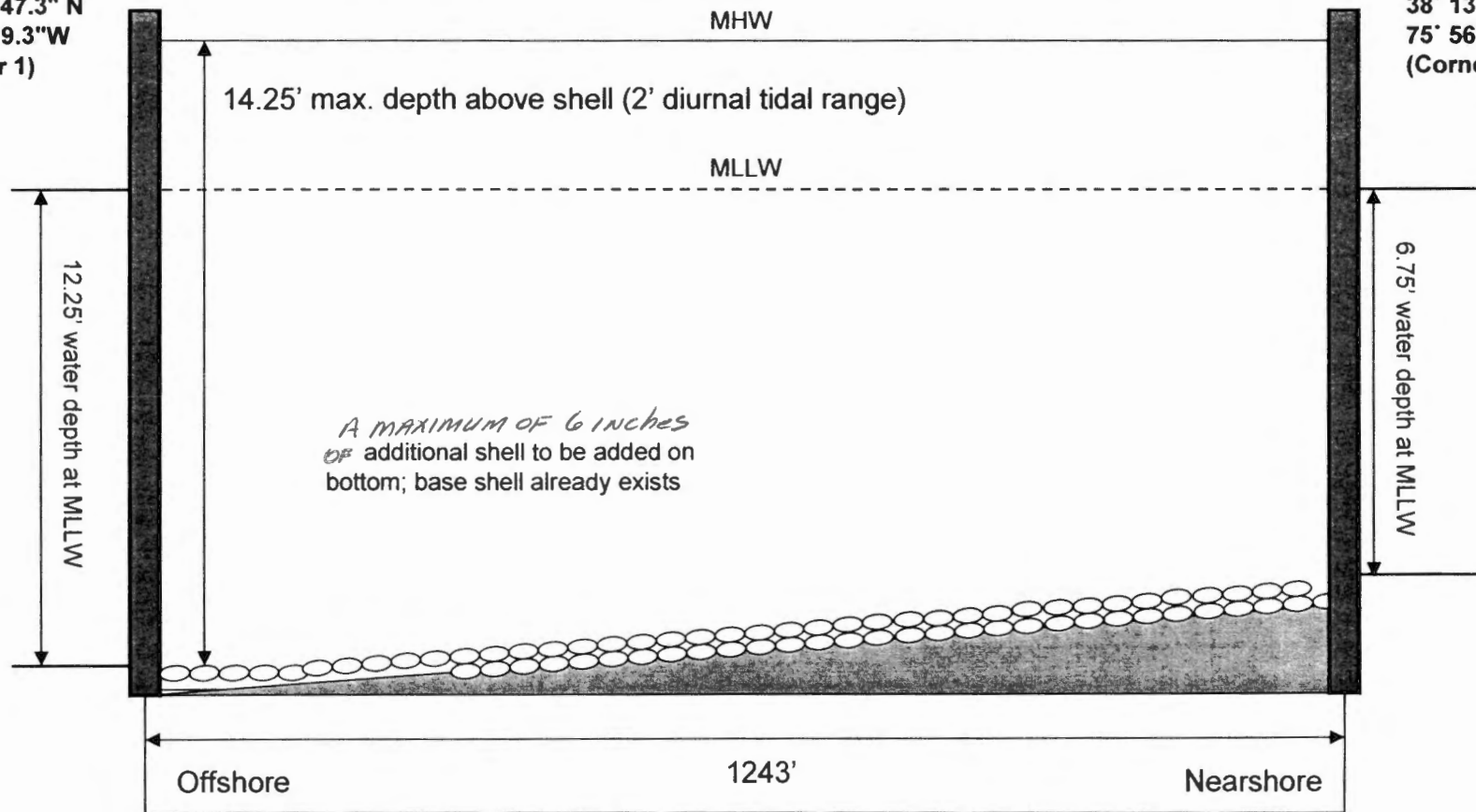
Bamboo stakes marked with name and lease # on 16"x14" board

MHW = mean high water

MLLW = mean lower low water

38° 13' 47.3" N
75° 56' 9.3" W
(Corner 1)

38° 13' 49.6" N
75° 56' 24.7" W
(Corner 2)



HC.
10/2

Cross-Section Diagram for Proposed Submerged Land Lease 139 2 of 2

Name: Hobart V. Fowlkes & George T. Mumford
Town, State: Nanticoke, MD
Waterbody: Nanticoke River
Date: February 2014

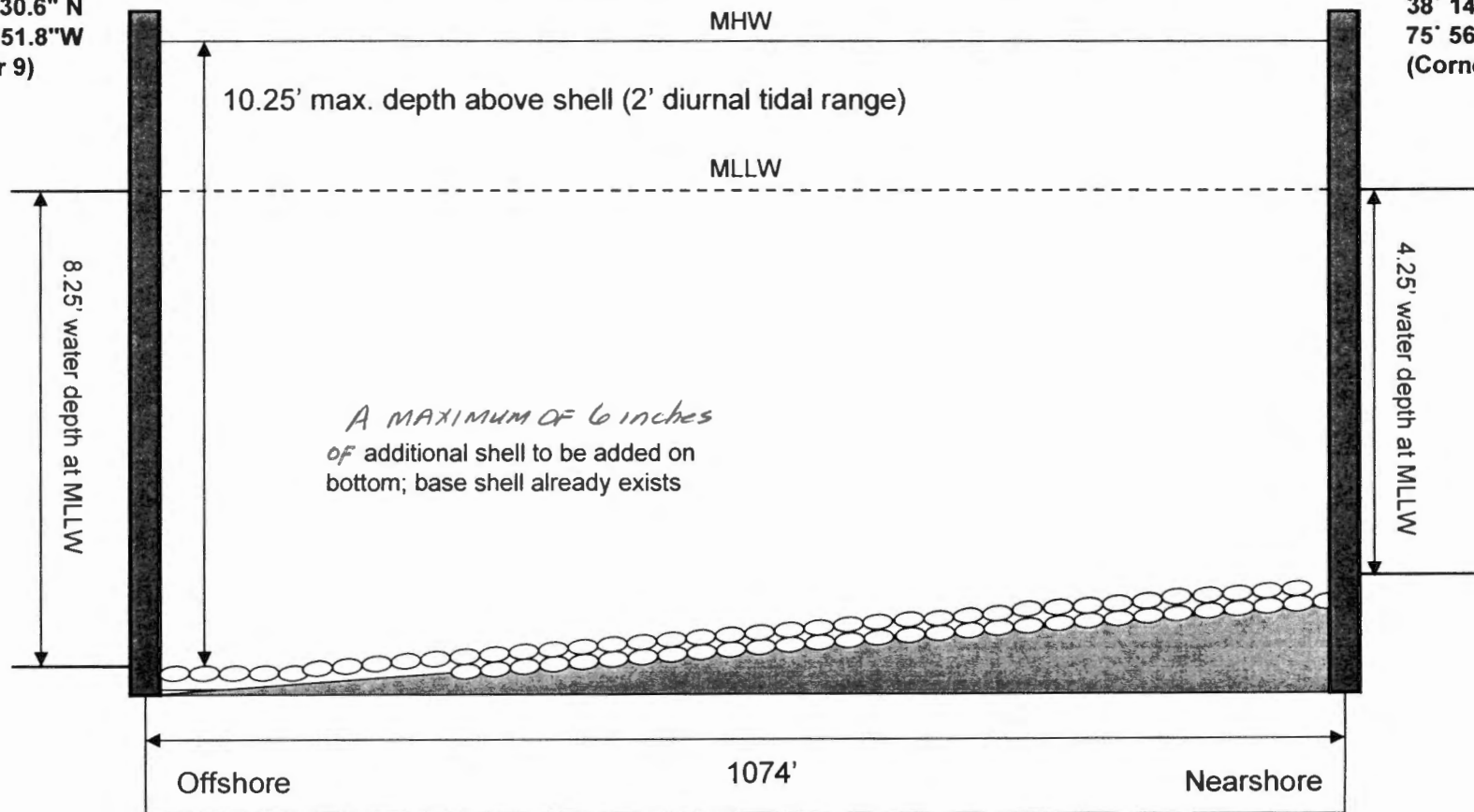
Bamboo stakes marked with name and lease # on 16"x14" board

MHW = mean high water

MLLW = mean lower low water

38° 14' 30.6" N
75° 55' 51.8" W
(Corner 9)

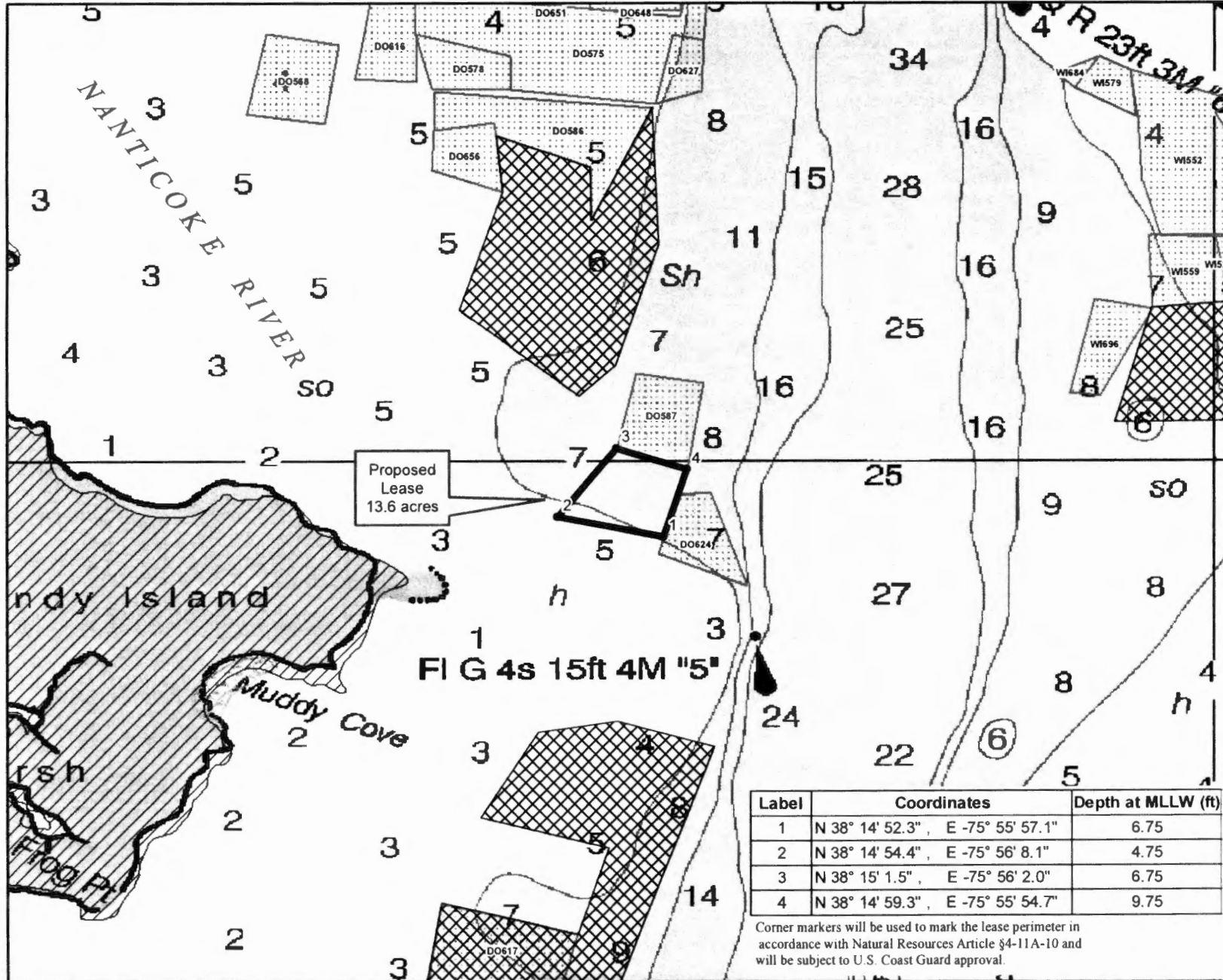
38° 14' 32.1" N
75° 56' 10.1" W
(Corner 7)



ILC
2012

Proposed Shellfish Submerged Lease NAV Chart Map

Hobart V. Fowlkes and George T. Mumford - Nanticoke River, Dorchester County Maryland AREA 3
APP#136



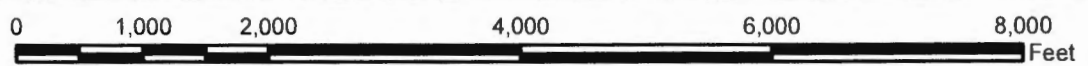
- Lease Area shown over NOAA Raster Navigational Charts.
- Proposed Lease
 - Sanctuaries and Refuges (state, federal, private, etc)
 - Submerged Aquatic Vegetation (VIMS)
 - Structures (Piers, Marinas, etc)
 - Wetlands of Special State Concern (MD-DNR)
 - Active Shellfish Lease
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 dnr.maryland.gov
 DNR December 2013



II.B

Cross-Section Diagram for Proposed Submerged Land Lease 136

Name: Hobart V. Fowlkes & George T. Mumford
 Town, State: Nanticoke, MD
 Waterbody: Nanticoke River
 Date: February 2014

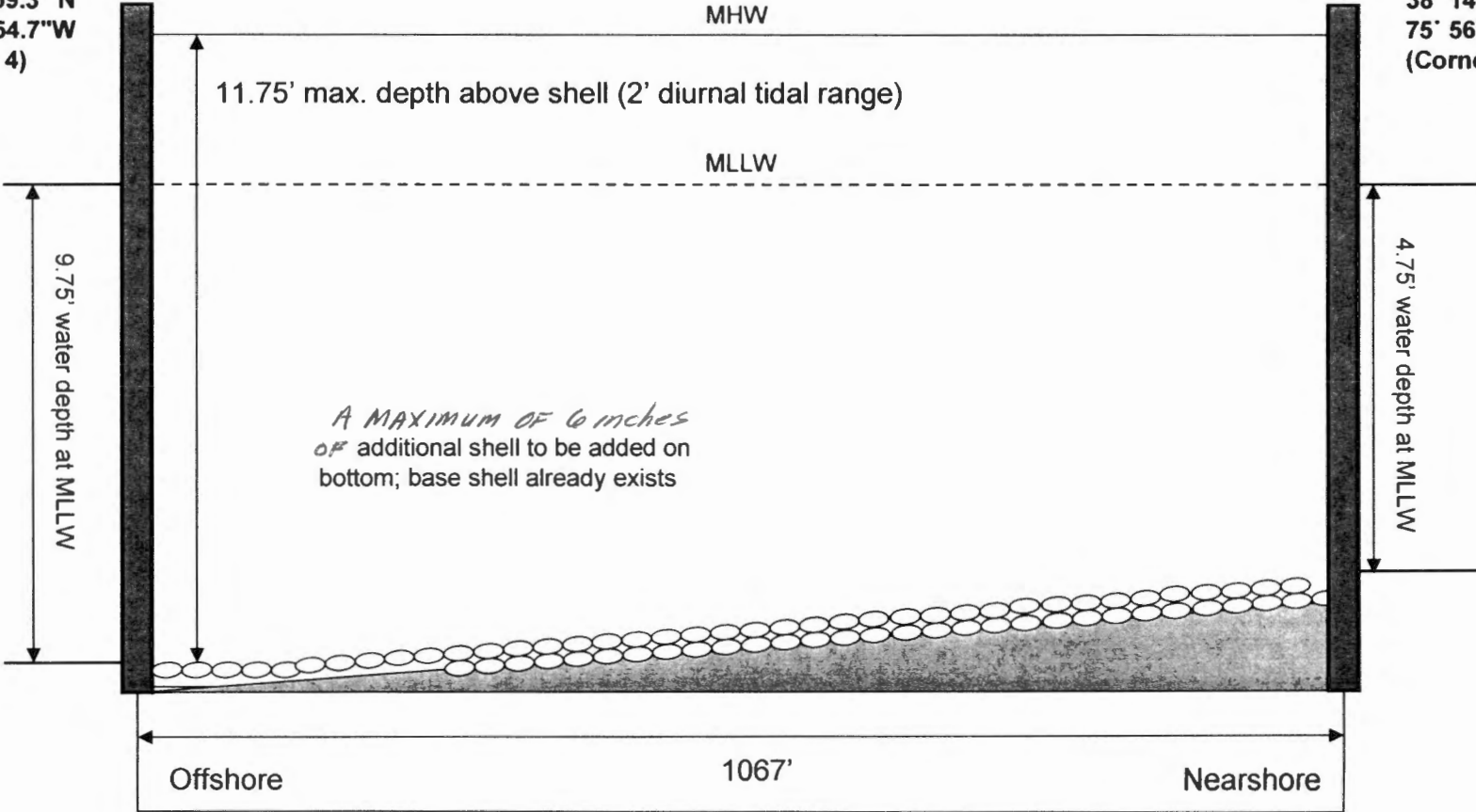


Bamboo stakes marked with name and lease # on 16"x14" board

MHW = mean high water **MLLW** = mean lower low water

38° 14' 59.3" N
 75° 55' 54.7" W
 (Corner 4)

38° 14' 54.4" N
 75° 56' 8.1" W
 (Corner 2)

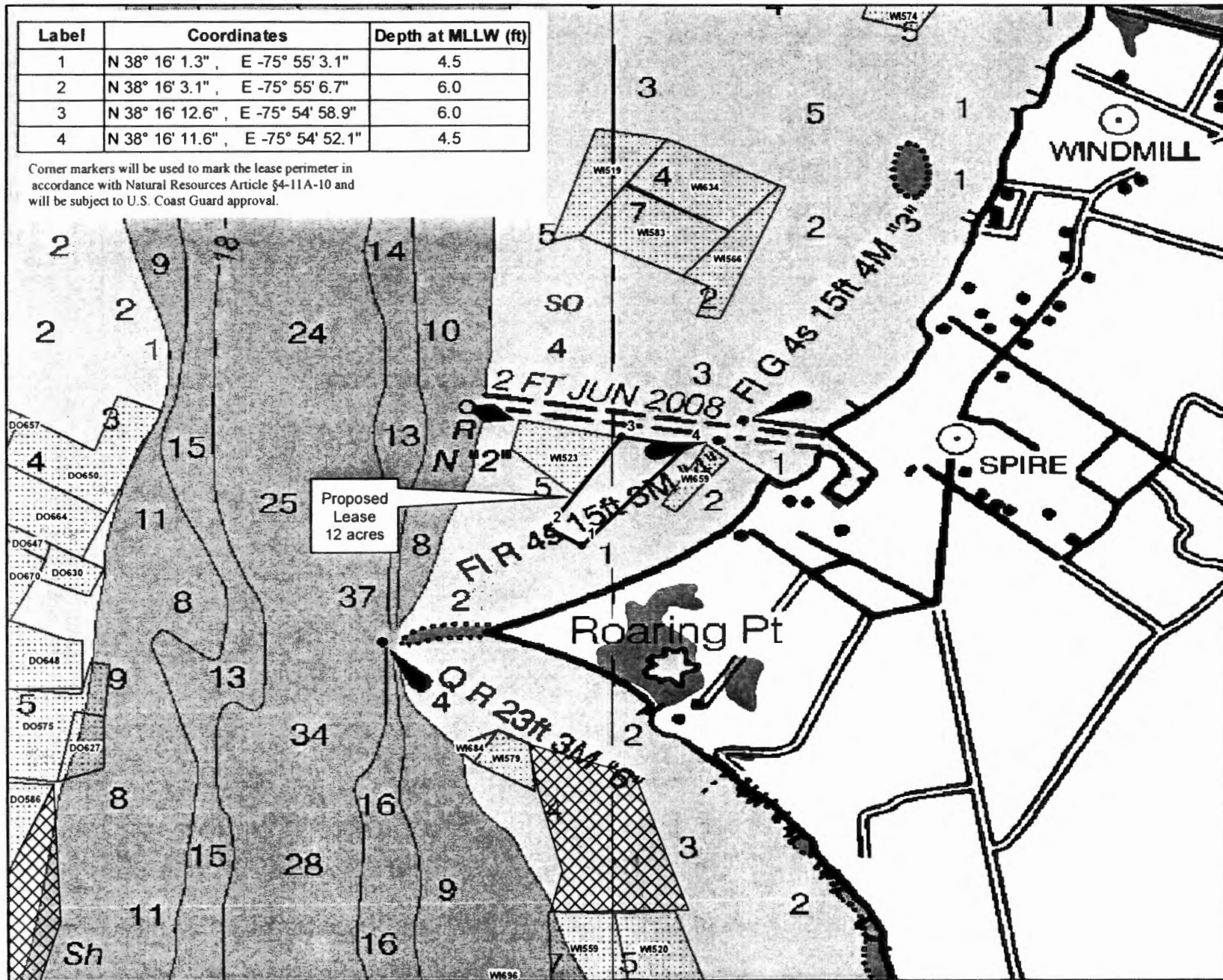


Proposed Shellfish Submerged Lease NAV Chart Map

Hobart V. Fowlkes and George T. Mumford - Nanticoke River, Wicomico County Maryland AREA 4
APP # 135

Label	Coordinates	Depth at MLLW (ft)
1	N 38° 16' 1.3", E -75° 55' 3.1"	4.5
2	N 38° 16' 3.1", E -75° 55' 6.7"	6.0
3	N 38° 16' 12.6", E -75° 54' 58.9"	6.0
4	N 38° 16' 11.6", E -75° 54' 52.1"	4.5

Corner markers will be used to mark the lease perimeter in accordance with Natural Resources Article §4-11A-10 and will be subject to U.S. Coast Guard approval.



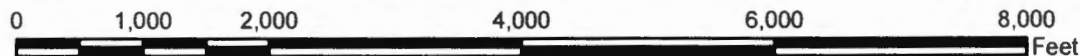
- Lease Area shown over NOAA Raster Navigational Charts.
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 - Sanctuaries and Refuges (state, federal, private, etc)
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 DNR December 2013



9. II

Cross-Section Diagram for Proposed Submerged Land Lease 135

Name: Hobart V. Fowlkes & George T. Mumford
 Town, State: Nanticoke, MD
 Waterbody: Nanticoke River
 Date: December 2013

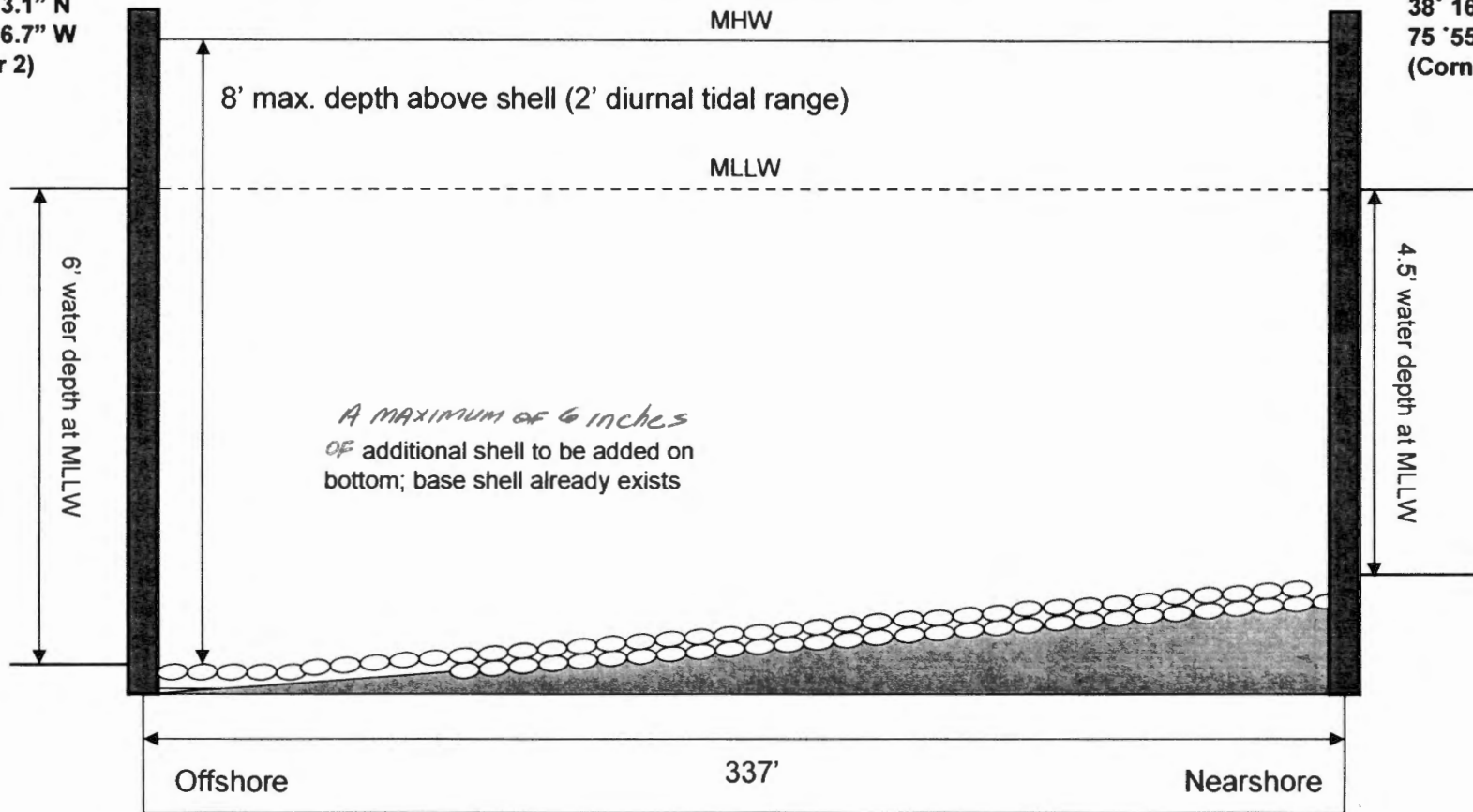


Bamboo stakes marked with name and lease # on 16"x14" board

MHW = mean high water **MLLW** = mean lower low water

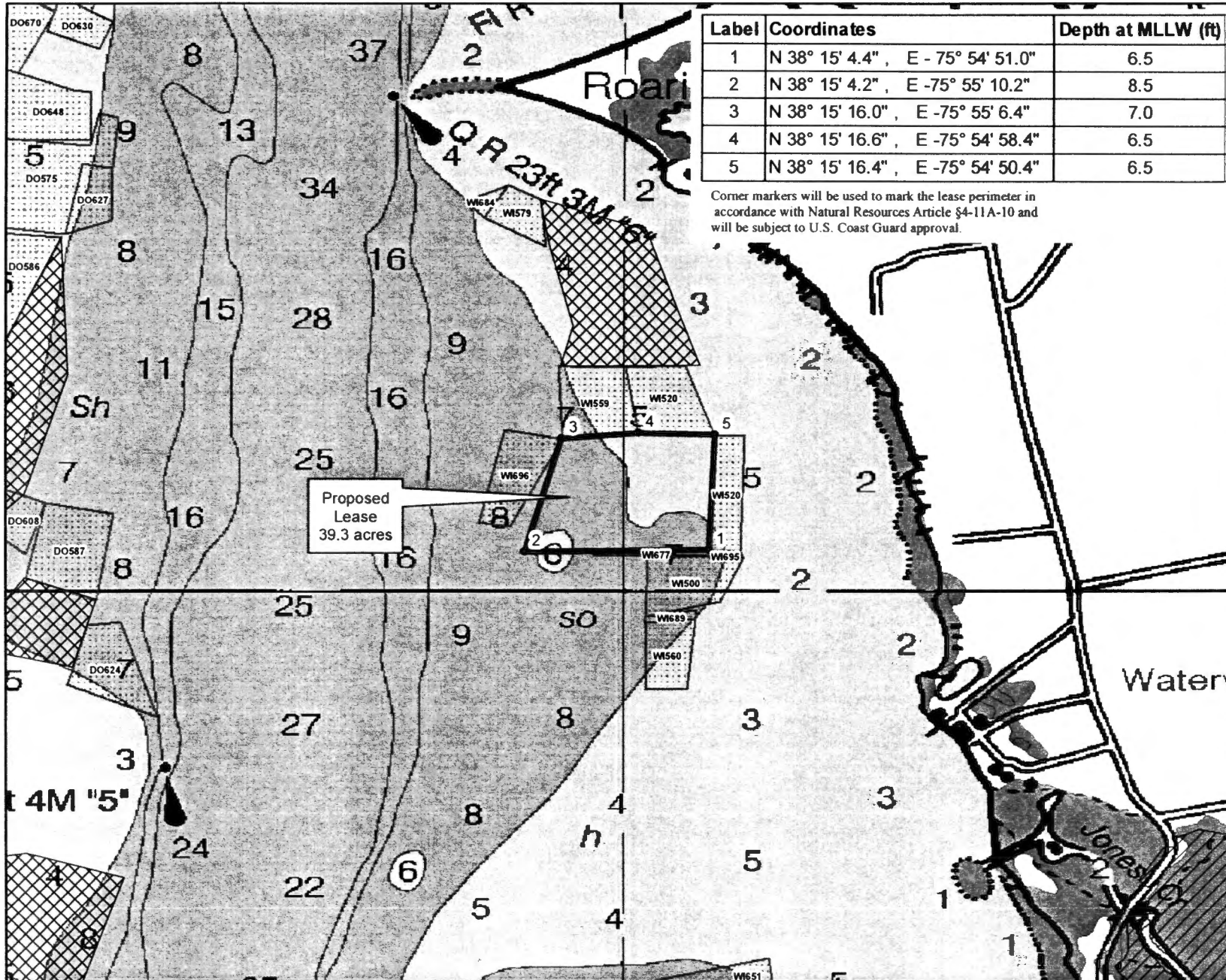
38' 16' 3.1" N
 75' 55' 6.7" W
 (Corner 2)

38' 16' 1.3" N
 75' 55' 3.1" W
 (Corner 1)



Proposed Shellfish Submerged Lease NAV Chart Map

Hobart V. Fowlkes and George T. Mumford - Nanticoke River, Wicomico County Maryland APP#137



Label	Coordinates	Depth at MLLW (ft)
1	N 38° 15' 4.4" , E -75° 54' 51.0"	6.5
2	N 38° 15' 4.2" , E -75° 55' 10.2"	8.5
3	N 38° 15' 16.0" , E -75° 55' 6.4"	7.0
4	N 38° 15' 16.6" , E -75° 54' 58.4"	6.5
5	N 38° 15' 16.4" , E -75° 54' 50.4"	6.5

Corner markers will be used to mark the lease perimeter in accordance with Natural Resources Article §4-11A-10 and will be subject to U.S. Coast Guard approval.

- Lease Area shown over NOAA Raster Navigational Charts.
- Proposed Lease
 - Sanctuaries and Refuges (state, federal, private, etc)
 - Submerged Aquatic Vegetation (VIMS)
 - Structures (Piers, Marinas, etc)
 - Wetlands of Special State Concern (MD-DNR)
 - Active Shellfish Lease
 - Proposed Shellfish Lease
 - Tidal Wetlands (NWI Wetlands)



Martin O'Malley
 Governor
 Anthony G. Brown
 Lt. Governor
 Joseph P. Gill
 Secretary



Maryland Department of Natural Resources
 Geospatial Information and Analysis
 580 Taylor Ave E-2 Annapolis, MD 21401
 410-260-8985 or 1-877-620-DNR x8985
 dnr.maryland.gov
 DNR December 2013



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Cross-Section Diagram for Proposed Submerged Land Lease 137

Name: Hobart V. Fowlkes & George T. Mumford
 Town, State: Nanticoke, MD
 Waterbody: Nanticoke River
 Date: December 2013

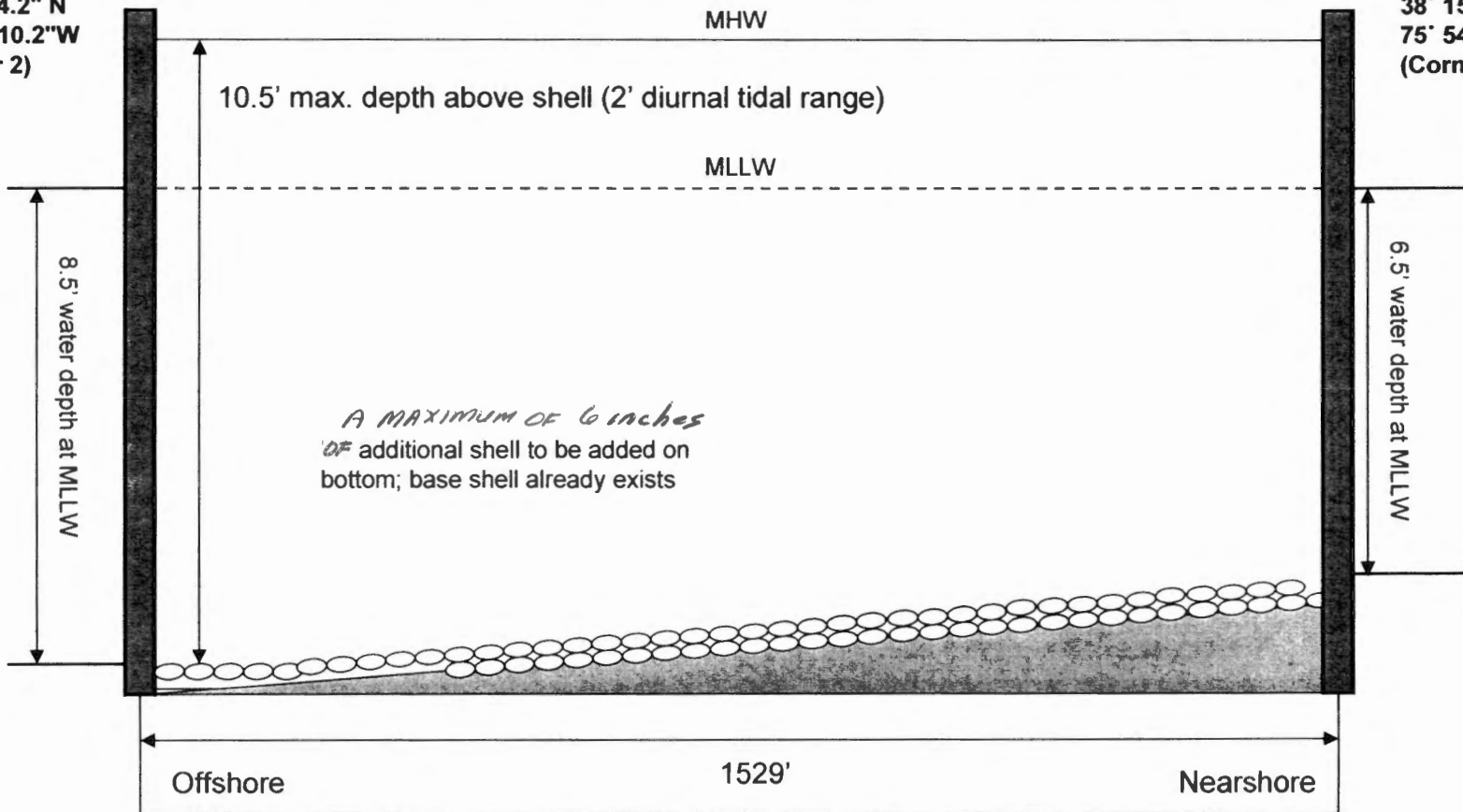


Bamboo stakes marked with name and lease # on 16"x14" board

MHW = mean high water **MLLW** = mean lower low water

38° 15' 4.2" N
 75° 55' 10.2" W
 (Corner 2)

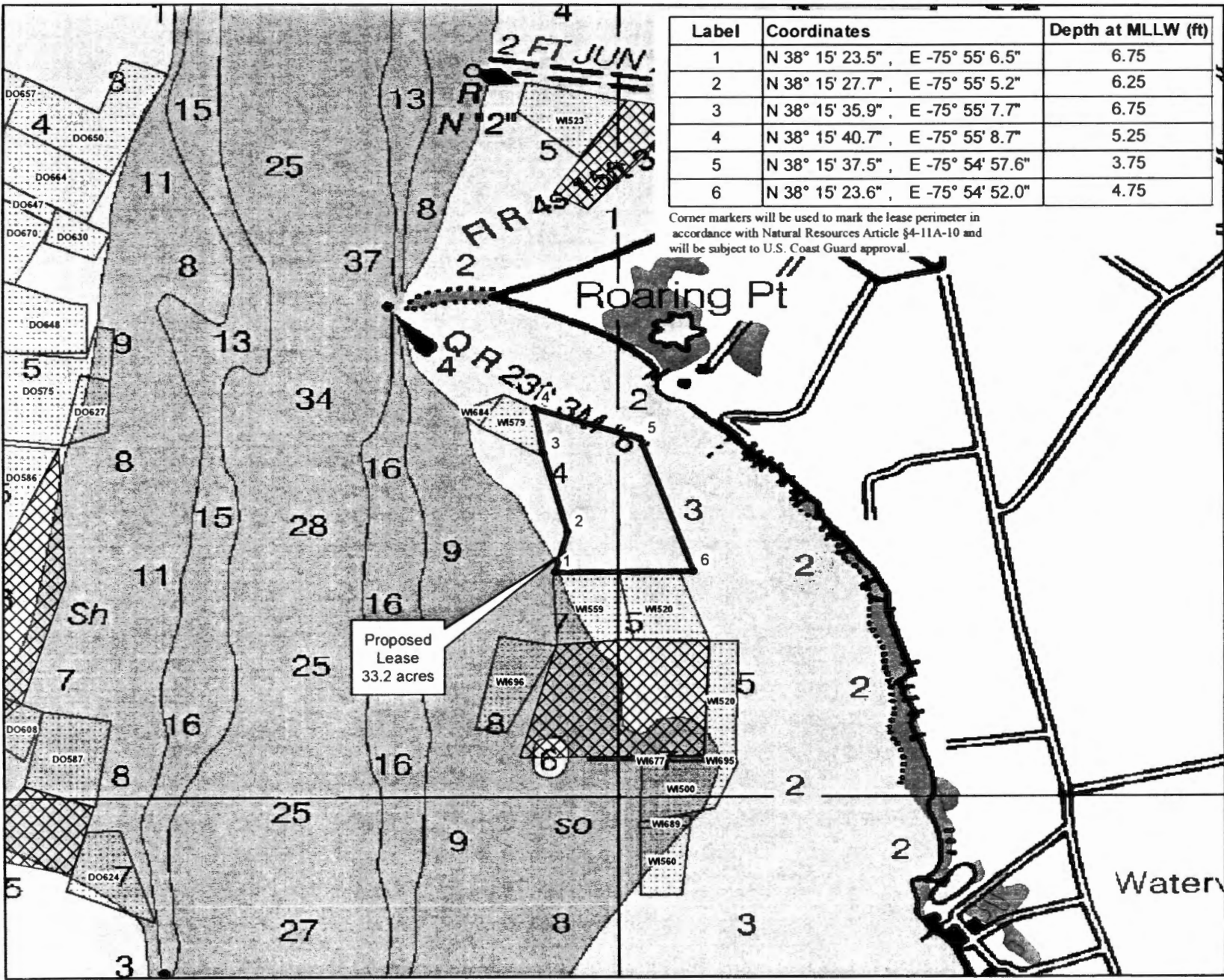
38° 15' 4.4" N
 75° 54' 51.0" W
 (Corner 1)



ITC

Proposed Shellfish Submerged Lease NAV Chart Map

Hobart V. Fowlkes and George T. Mumford - Nanticoke River, Wicomico County Maryland



Label	Coordinates	Depth at MLLW (ft)
1	N 38° 15' 23.5", E -75° 55' 6.5"	6.75
2	N 38° 15' 27.7", E -75° 55' 5.2"	6.25
3	N 38° 15' 35.9", E -75° 55' 7.7"	6.75
4	N 38° 15' 40.7", E -75° 55' 8.7"	5.25
5	N 38° 15' 37.5", E -75° 54' 57.6"	3.75
6	N 38° 15' 23.6", E -75° 54' 52.0"	4.75

Corner markers will be used to mark the lease perimeter in accordance with Natural Resources Article §4-11A-10 and will be subject to U.S. Coast Guard approval.

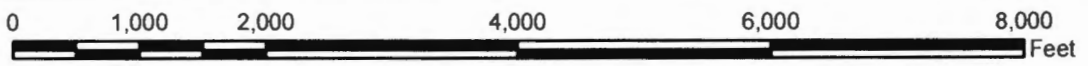
- Lease Area shown over NOAA Raster Navigational Charts.
- Proposed Lease
 - Sanctuaries and Refuges (state, federal, private, etc)
 - Submerged Aquatic Vegetation (VIMS)
 - Structures (Piers, Marinas, etc)
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 DNR December 2013



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Cross-Section Diagram for Proposed Submerged Land Lease 138

Name: Hobart V. Fowlkes & George T. Mumford
Town, State: Nanticoke, MD
Waterbody: Nanticoke River
Date: December 2013



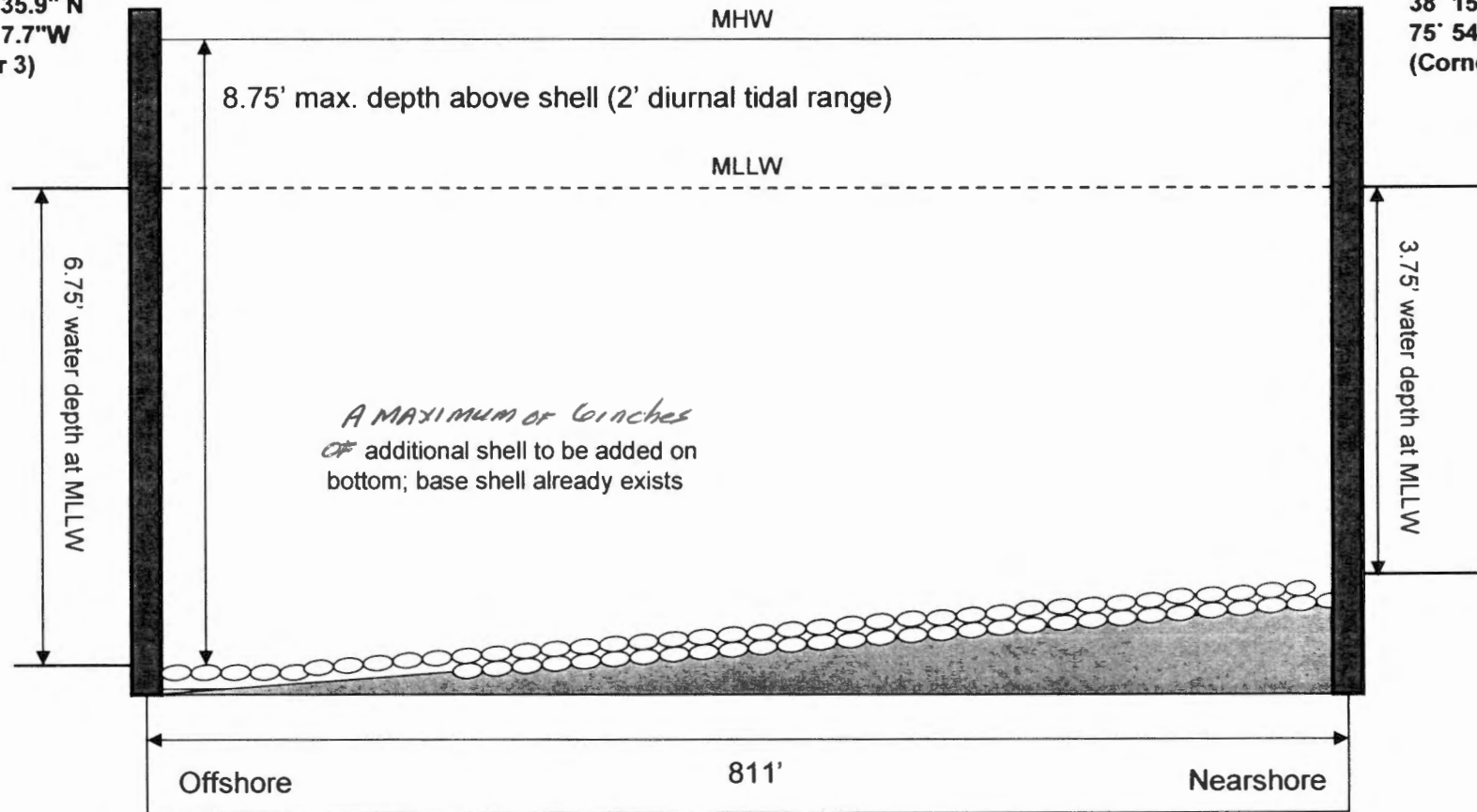
Bamboo stakes marked with name and lease # on 16"x14" board

MHW = mean high water

MLLW = mean lower low water

38° 15' 35.9" N
75° 55' 7.7" W
(Corner 3)

38° 15' 37.5" N
75° 54' 57.6" W
(Corner 5)



ITC