

# Oyster Advisory Commission

## Man O War Shoals – Shell Dredging Permit Questions

January 9, 2017

Below are permit related tasks based on questions asked by the OAC on December 12, 2016:

1. DNR will provide a list of agency staff who attended the November 22nd meeting with USACE.
2. DNR will consult with the Baltimore County Oyster Committee regarding future plans for seed plantings on Man-O-War Shoals.
3. DNR will provide the acres of Man-O-War shoals and of the Baltimore County Oyster Committee seed plantings.
4. DNR will provide a citation or definition of shell dredging in order to explain why the regulatory agencies consider it to be a dredging activity.
5. DNR will provide the data that was used to establish that 5 million bushels of shell should be proposed for removal in the Man-O-War Shoals shell dredging application.

### **1 DNR will provide a list of agency staff who attended the November 22nd meeting with USACE.**

List of Attendees: November 22, 2016 USACE Meeting on Man O War Shoals Permit

#### USACE

Joe DaVia	Joseph.DaVia@usace.army.mil
Abbie Hopkins	ABBIE.HOPKINS@usace.army.mil

#### NOAA

Kristy Beard	kristy.beard@noaa.gov
Brian Hopper	brian.d.hopper@noaa.gov

#### USFWS

John Gill	john_gill@fws.gov
Chris Guy	chris_guy@fws.gov

#### EPA

Mike Mansolino	Mansolino.Michael@epa.gov
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#### MDE

Justin Berezna	justin.berezna@maryland.gov
Andrew May	andrew.may@maryland.gov

#### BPW

Angela Parks	angela.parks@maryland.gov
Bill Morgante	bill.morgante@maryland.gov

#### DNR – the applicant

Dave Blazer	david.blazer@maryland.gov
Chris Judy	chris.judy@maryland.gov
Jodi Baxter	jodi.baxter@maryland.gov

**2 DNR will consult with the Baltimore County Oyster Committee regarding future plans for seed plantings on Man-O-War Shoals.**

The Baltimore County Oyster Committee plans to continue planting seed on Man O War Shoals and agreed that there is plenty of room to plant for several more years in the existing area (the area west and outside of the proposed permit area). The Committee would like to expand to the east, into the proposed permit area, but is waiting to see the result of the application. If the permit is not approved, then seed plantings will expand to the east in future years. Even if the permit is approved, seed plantings could expand into that area once shell dredging is completed after Year 5 of the permit.

See the map on the last page.

**3 DNR will provide the acres of Man-O-War shoals (the shallow portion where the shells are located) and of the Baltimore County Oyster Committee seed plantings.**

Total estimated acres of the shoal: 166 acres  
Seed planting acres: 66.2 acres (range from 4.8 acres up to 35 acres each)

See the map on the last page.

**4 DNR will provide a citation or definition of shell dredging in order to explain why the regulatory agencies consider it to be a dredging activity.**

The Corps replied that they are not familiar with any legal citation that labels shell dredging as dredging, but they confirmed that the explanation provided by DNR at the OAC meeting is accurate: that shell dredging is dredging because in brief, it uses a dredge and removes material from the bay bottom. Also from the Corps, there are two types of dredging: mechanical and hydraulic. Cutterhead dredging is a type of hydraulic dredging that would be used at Man O'War. In shell dredging the cutterhead rotates in order to dislodge shells and sediment from the bottom, then a hydraulic pipe suctions the material up to the barge where the shells are collected and washed. Additionally, the EFH and ESA requirements are the same for any type of dredging and one of the critical items the Corps has to evaluate. In preparing the EFH and ESA assessments, the type of dredging is reviewed; mechanical or hydraulic.

**5 DNR will provide the data that was used to establish that 5 million bushels of shell should be proposed for removal in the Man-O-War Shoals shell dredging application.**

The topic of 5 million bushels of shell appears twice in the permit process.

A) Prior to the application being submitted in 2015: The permit application was submitted in 2015, but the decision to propose dredging 5 million bushels of shells from Man O War Shoals was made prior to 2015. The original intent of the project was to dredge 30 million bushels of shells but due to environmental concerns about this degree of shell removal, the scale of the project was reduced to an initial permit phase of 5 million bushels that would include a monitoring program to evaluate the project. This was mentioned on page 1 of "Attachment 1" that was submitted with the permit application in July 2015.

Page 1 of Attachment 1

A 1988 Maryland Geological Survey (MGS) study of the Man-O-War shoal (Figure 1) indicated that the shoal comprises between 86 million and 103 million bushels of oyster shell in a 456 acre area (J. Halka, MGS, pers. comm.; Cuthbertson 1988). MDNR intends ultimately to remove approximately 30% of the available shell (about 30 million bushels) to use primarily to restore oyster habitat and oyster populations. In response to stakeholders' concerns about the potential ecological effects of a shell-dredging project of this magnitude, MDNR is requesting an initial five-year permit to dredge 5 million bushels of shell as part of a comprehensive monitoring project to assess the ecological consequences of removing shell from the shoal.

B) During DNR's response to the 41 issues, dated August 19, 2016: In the reply titled "NMFS (20)" it was discussed that 5 million bushels would only partially meet the need for shell during the 5 year term of the permit. The need was estimated to be about 11 million bushels at a minimum. It could easily be up to 19 million bushels during the 5 year permit depending on the scale of the industry plantings (see the text below regarding the bushels per year for industry). Reply 20 was detailed and involved topics other than the 5 million bushels, so only text relevant to the 5 million bushel question is included below.

DNR's August 19, 2016 reply: NMFS (20) - Planting Sites, Shell Volume, Shell Justification

***NMFS (20) "MDNR has not identified the specific locations where the shell will be placed, or the amounts needed in each location... there is no way to determine exactly how much material is needed."***

PLANTING SITES: Exact planting sites were not listed in the application because the sites are yet to be determined. They are selected as projects are undertaken, budgets are known, materials and quantities are known, and as DNR coordinates with the many restoration partners and the public.

This is the method used for all prior shell dredging projects and permits. The agencies have always approved permits lacking precise planting site data because it was clear in the applications (as it is in this application) that planting sites will be on natural and historic oyster bars and leases. That level of detail was acceptable. In fact, planting permits currently held by DNR for shell, seed, and alternate materials were approved with that general level of detail.

Note: Providing the planting sites and volumes to the agencies prior to each year's dredging should be easily accomplished. This information is known on an annual basis during the program.

SUBSTRATE VOLUME: Even though exact planting sites aren't known yet, it is possible to estimate the volume of material needed. The total estimated need for the life of the 5 year permit is 11M bushels, for Restoration, the Public Fishery, and Aquaculture. This compares to the requested 5 million bushels of shells from Man O' War Shoals under this permit application. The amount needed for the 5 year period exceeds the amount available for the 5 year period, therefore alternate materials are important, not just dredged shells.

The 11M bushel estimate was developed as follows:

Restoration: 8.5M bushels – for the next two restoration tributaries, as per DNR's Oyster Restoration Manager who also is on the Maryland Interagency Workgroup that designs the large scale projects. Assume the next two tributaries are similar to the three prior tributaries. Assume 158 acres per tributary at a planting rate of 12" per acre.

Industry: 2M bushels – based on a rate of 1M bushels per year, with two years of dredging assumed. The 1M bushels per year rate is based on past volumes used for Industry under the prior shell program. This is a minimal rate. Typically, Industry plantings were 2M bushels per year up to 5M.

Aquaculture: .5M bushels – based on .25M bushels per year, with two years of dredging assumed. Assume that an estimated 10 leaseholders will buy shells and will plant 5 acres at 5K bu/acre = 25K bushels per person. This could be a low estimate given the number of leaseholders, however shells are expensive and not everyone will buy them.

**Man O War Shell Dredging Map:**

Hatchery spat (seed) have been planted on the west side of the shoal and encompass about 66.2 acres. The "shoal" (approximately 166 acres in total) is the long, narrow, shallow area inside the much larger Yates Bar boundary, shown by the orange line. The Yates Bar is named Man O War Shoal oyster bar, but the actual shoal of abundant shell bottom is the long, narrow, shallow area.

The permit area under review by the agencies is the gray hatched area. The Survey Area coordinates pertain to the gray hatched area. They denote a patent tong survey conducted throughout the area in December 2016, at the request of the USACE to assess potential shell dredging impacts to live oysters. Zero oysters were found in the area.

