

Oyster BMP Policy Issues – Special Management Board Session

Wednesday, June 15th, 2016

9am-11:30am

Webinar/Conference Call

MEETING SUMMARY

Call Participants

| | | | |
|------------------|---------------------|-------------------|------------------------------|
| Ann Jennings | CBC | Nick DiPasquale | EPA/MB Chair |
| Ann Swanson | CBC | Carin Bisland | EPA |
| Becky Golden | Habitat GIT/MDDNR | Greg Barranco | EPA |
| Lee Currey | WQ GIT/MDE | Mike Slattery | USFWS |
| Chris Becraft | MDDNR | Paula Jasinski | CAC Vice-Chair |
| Dave Goshorn | MDDNR | Jessica Blackburn | CAC Coordinator |
| Matt Fleming | MDDNR | Kurt Stephenson | STAC/Virginia Tech |
| Jim George | MDE | Ward Slacum | Oyster Recovery Partnership |
| Kathy Brohawn | MDE | Julie Reichert | Expert Panel Coordinator/ORP |
| Russ Baxter | VA | Julie Rose | Expert Panel Member/NOAA |
| Dave Schulte | USACE | Chris Moore | Expert Panel Member/CBF |
| Peyton Robertson | NOAA/Fish GIT Chair | Nicole Lehmer | CRC |
| Stephanie Westby | NOAA | Lauren Taneyhill | ERT/NOAA |
| Bruce Vogt | NOAA | Emilie Franke | ERT/NOAA |

Action from the May 19th MB Meeting

“The MB agreed to hold a special meeting of the MB to focus on policy issues reported out by the Oyster BMP Expert Panel. Participants will include MB members, Advisory Committee members, as well as other invited experts.”

Original Memo to the Management Board:

http://www.chesapeakebay.net/channel_files/23247/iii.a_policy_issues_related_to_oyster_bmp-mb_mtg_5_19_2016.pdf

Objective

Special session of the CBP Management Board to provide policy recommendations on issues raised by the Oyster BMP Expert Panel and stakeholders. Resolution of these issues is important to guide the Panel’s continuing work to develop pollution reduction effectiveness estimates for various combinations of oyster practices and crediting protocols. This discussion will focus on the most time-sensitive issues for the Expert Panel’s work.

Process

1. Asked MB members to identify their interest to participate in this discussion.
2. Worked with the Oyster BMP Expert Panel leadership to better understand the issues that were raised, identify the policy question and potential options for resolution.
3. Conducted a brief survey of call participants before the meeting to gather initial comments and questions on the issues.

NOTE: All decisions were reached through consensus.

| Policy Question and Discussion | Decision |
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| <p>1. Establishing a baseline</p> | |
| <p><i>Issue raised by stakeholders.</i></p> <p><u>How would the baseline be established?</u></p> <p>Discussion</p> <ul style="list-style-type: none"> • Baseline usually geared toward BMP’s that start from 0. This BMP already has oysters in the water that are contributing to WQ benefit. • Differentiate between WQ nutrient trading and TMDL crediting. <ul style="list-style-type: none"> ○ Need to specifically define “new and expanding” operations for future discussions of nutrient trading. • Consider the need for tracking and verification. • Important to be consistent with the TMDL baseline. • Example of verification information needed to credit nutrient assimilation for aquaculture: <ul style="list-style-type: none"> ○ date oysters were planted; ○ size class of oysters when planted; ○ date oysters were removed; ○ # of oysters removed per size class. <p>Potential resolution options:</p> <ul style="list-style-type: none"> • Refer to TMDL baseline (2009). • Baseline not needed. Just base the credit on live oysters for new and expanding practices moving forward. <p><i>Follow-up action: Contact VA to discuss the example of a baseline based on the projected growth of the aquaculture cage industry.</i></p> | <p>Decisions</p> <p>- If crediting TMDL based on removal of oysters (aquaculture), only include oysters that are removed moving forward from the time the BMP is approved/ implemented.</p> <ul style="list-style-type: none"> • Credit will be counted when oysters are removed (not when planted). • Verification is important and will be required for crediting. • Historical aquaculture harvest is <u>not</u> credited. <p>- If crediting TMDL based on sequestration in oysters (restoration), use 2009 as baseline (include oysters put in the water starting from 2009 moving forward and have since survived).</p> <ul style="list-style-type: none"> • Importance of reliable, verifiable information. • Focus on the tributaries selected for restoration under the Bay Agreement since they have extensive monitoring. |
| <p>2. Crediting and accounting for pollutant load reductions</p> | |
| <p><i>Issue raised by stakeholders.</i></p> <p>How would oyster BMPs be counted toward load allocation? Would an existing source sector receive credit? Or a new category receive credit?</p> <p>Discussion</p> <ul style="list-style-type: none"> • Functions like a nonpoint source BMP. • Does not fit with existing sector. • As an in-water tidal BMP, the source does not matter | <p>Decision</p> <p>Oyster BMPs will not be credited to a specific source sector. Reduction credit will go toward total nonpoint source load allocation. Consider grouping this in-water BMP with other tidal in-water BMPs (ex: algal flow way tech BMP).</p> |

| Policy Question and Discussion | Decision |
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| <p>since nutrients are already there and mixed. Different from land-based BMPs.</p> <ul style="list-style-type: none"> • Look at algal flow way tech BMP Expert Panel report as an example of a tidal in-water BMP. | |
| <p>3. Permanent pollutant removal from the Bay vs. removal from the water column</p> | |
| <p><i>Issue raised by the Expert Panel.</i></p> <p>i. Sequestration: Would it be acceptable from a BMP perspective that the nutrients sequestered in the tissue/shells of oysters that remain in the water be included in the pollutant reduction effectiveness estimate? Referring to oyster restoration as an in-water biological BMP.</p> <p>Discussion</p> <ul style="list-style-type: none"> • The oysters are actively removing nutrients from the water column, but the oysters themselves remain in the water (not removed from the Bay). • Depends on if the assimilated nutrients no longer affect the WQ. Need to determine if there is sufficient science to account for and incorporate oyster mortality into reduction estimates for restoration. • Look at wetland expert panel guidelines on sequestration. <p>ii. Deposition: Would it be acceptable from a BMP perspective to include in the reduction effectiveness estimate the removal of suspended sediment from the water column? Referring to oyster restoration as an in-water biological BMP.</p> <p>Discussion</p> <ul style="list-style-type: none"> • The oysters are actively removing suspended sediment from of the water column and depositing it on the bottom, but the sediment itself remains in the water (not removed from the Bay). • Science question: do oysters reduce the potential for re-suspension of the sediment? <ul style="list-style-type: none"> ○ Is current science sufficient to determine pollution reduction effectiveness for sediment? • Panel does not have sufficient science. They will identify science gaps in their report. | <p>Decisions</p> <ul style="list-style-type: none"> - The Expert Panel should develop pollutant reduction effectiveness recommendations for restoration. More discussion later on final BMP approval. <ul style="list-style-type: none"> ▪ FIRST, need to investigate legality of in-water BMPs for nutrient sequestration and sediment deposition under CWA. ▪ The Panel should address how to factor in oyster mortality. - Table the question on sediment deposition due to insufficient science at this time. The Panel should identify research necessary to improve the state of the science. |

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| 4. Crediting protocol based on water clarity instead of suspended sediment reduction | |
| <p><i>Issue raised by the Expert Panel.</i></p> <p>Can the sediment reduction effectiveness estimate be based on improved water clarity? If so, then how should this protocol be applied in combination with the nitrogen and phosphorus protocols; would double-counting occur?</p> | <p>Decision</p> <p>Sediment reduction <u>cannot</u> be expressed as water clarity. Water clarity is an end point and cannot be credited.</p> |
| 5. Oyster Shell | |
| <p><i>Issue raised by the Expert Panel and stakeholders.</i></p> <p>Concern that returning shell to the water (shell recycling, restoration, aquaculture) will be dis-incentivized due to crediting nutrient assimilation in oyster shell.</p> <p>Discussion:</p> <ul style="list-style-type: none"> • Concerns expressed about unintended consequence of dis-incentivizing shell recycling if oyster shell is credited for nutrient reduction toward TMDL compliance and/or trading • Significant concerns were also raised about tracking and verification given that oyster shell is moving to, from and throughout the estuary and across jurisdictions. Tracking shell is difficult. • Unknown shell dissolution rates once returned to the water. We do not want to put nutrients back in the water. • Does it matter where the shell ends up once removed? • There are some cases when shell does not dissolve or dissolves more slowly. Ex: shell embedded in a reef, incorporated into sediment, etc. • Not sure how the aquaculture industry will respond to crediting aquaculture practices. | <p>Decision</p> <p>Table this question for now. Ask Panel to revisit science on shell dissolution.</p> <ul style="list-style-type: none"> • The Expert Panel should revisit science on re-introduction of nutrients due to shell dissolution. • The Expert Panel's first set of recommendations will focus on nutrient assimilation in oyster tissue. Nutrient assimilation in oyster shell will be revisited for second set of recommendations. |
| 6. Oyster BMP verification and crediting by source sector or new category | |
| <p><i>Issue raised by stakeholders.</i></p> <p>How will practices be verified?</p> <p>Panel provides verification guidelines on what will be measured. Verification is up to jurisdictions and is needed for all BMP's.</p> | <p>No decision needed.</p> <p>Verification will be required, as with all other BMPs. Look forward to verification guidelines in the Oyster BMP Expert Panel's report.</p> |

| Policy Question and Discussion | Decision |
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| 7. Scale of permanent removal to make a real water quality difference | |
| <p><i>Issue raised by stakeholders.</i></p> <p>Concern that too many oysters needed to make a significant difference (reality check) and exacerbating user conflict.</p> <p><u>Non-panel issue.</u> BMPs are additive, many practices implemented. Up to the jurisdictions to decide which BMP's to implement.</p> | <p>Not an issue of concern for the Panel or this policy group.</p> <p>Each jurisdiction deals with user conflict issues separately through their own processes.</p> |
| 8. High-intensity, large scale aquaculture | |
| <p><i>Issue raised by stakeholders.</i></p> <p>Concern that incentivizing high-intensity aquaculture could compromise other oyster efforts by potentially spreading disease. The drivers for aquaculture are primarily economic.</p> <p><u>Non-Expert panel issue.</u> Aquaculture already exists and is growing so not specifically related to the Panel.</p> | <p>Not an issue of concern at this time.</p> <p>There is no known science to support this concern of high-intensity aquaculture promoting the spread of disease.</p> |
| 9. Oysters as BMP's for water quality trading | |
| <p><i>Issue raised by stakeholders.</i></p> <p>Are oyster BMP's appropriate for WQ trading?</p> <p><u>Non-Expert panel issue.</u> Panel recommends load reduction crediting. WQ trading and BMP implementation is an issue for the jurisdictions.</p> | <p>Not an issue for the Panel or this policy group.</p> <p>This is an issue of how the trading programs are constructed in the states and cannot be considered until the Expert Panel completes its work. The jurisdictions and EPA would discuss if oyster BMPs are approved. Participants noted the importance of engaging the public and stakeholders in the consideration of oyster BMPs for nutrient trading.</p> |
| 10. Small nutrient reductions in the face of greatly expanded user conflicts | |
| <p><i>Issue raised by stakeholders.</i></p> <p><u>Non-Expert panel issue.</u> User conflicts are already happening. These conflicts are a jurisdictional issue and a jurisdictional choice of which BMPs to implement.</p> | <p>See decision for issue #7.</p> |