BEYOND 2025: SHALLOW WATER HABITATS SMALL GROUP Listening Session

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BREAKOUT GROUP: 2 of 3
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QUESTION 1: What do healthy and sustainable shallow water habitats look like to you?

dynamic, connected areas that can respond to transgression, SLR, storms, freshwater changes by transitioning into natural roles of ecosystem services

Resiliency to increased load and flow scenarios

Densely vegetated, with buildings behind vegetation and far enough from the water to accommodate shoreline changes

very low slope, high hydrologic connectivity between open water and land

indigenous vegetation with low evidence of non-natives or invasives

absence of litter, plastics, styrofoam, other human waste, post consumables.... and a clear water column.... you can see your toes once in the water unless native SAVs obscure

areas are accessible to the public

Place where people can fish and people/pets can swim

Shallow water habitats and landscapes upstream of them are conserved and permanently protected.

Ones in which the shallow water habitats and their riparian buffers are managed and REGULATED as a single, integrated ecosystem. (In VA they are reg separate

Resilient--able to respond to disturbance, reorganize, and undergo change while maintain ecosystem functioning and productivity (ecosystem services)

Water connected to watershed conditions, including vegetation, impervious surfaces, living organisms

Waters that are used and valued by communities. This may be an informal impression or some sort of social science construct. Not just a physical/ecological thing.

It looks like it is free of pollution and invasive species. It also is available to the community to use as intended or enjoy.

Dominated by native species and communities, with water quality parameters sufficient to support them. Some may not be self-sustaining-need ongoing management

Supportive of native wildlife, fisheries and other designated uses, resilient to climate change and disturbance, connected to other waterways

Resilient and connected systems that integrate aquatic and terrestrial near-water habitats that can adapt and change while maintaining key ecological functions.

clear water

protected riparian areas with a strong ground water/surface water interface to maintain temps and clarity, and upstream sources of pollution mitigated

specimen/champion trees along edges, riparian zone

High productivity waterbody edges that sustain thriving resources across all uses and impacts.

Nontidal Headwater Streams- Intact Riparian Buffer, Livestock excluded, limited impervious surface and stormwater runoff, Hyporheic exchange

Dynamic suite of riparian veg (emergent), submersed veg, diverse 3-D structure (wood, rock, etc), transitioning to deep water

Healthy and sustainable even after factoring in population growth, economic development, and climate change. It takes work to tread water

natural, free flowing waters (steady flow)

No fishkills/ low DO events

No nuisance macroalgae blooms; healthy benthic algae (diatoms not toxic cyanobacteria)

Provide conditions that support/maintain living resource productivity such as egg/larval survival of fishes

clear water, can see benthos

Full trophic web in abundance - including top predators

Management (restoration and conservation) to restore ecological function to benefit fish, wildlife and people. Not pre-settlement, but ecol. function.

clean water with abundant native wildlife and ability for sustainable fishing and recreational opportunities for all.

Biodiverse, resilient, productive

Healthy waters, habitats full of life and grass, biodiverse

QUESTION 2: Where should focus be given to maintain or improve shallow water habitats?

For example, this could be geographic focus, modeling focus, people focus.

Local government engagement regarding land use planning

Enhanced monitoring to understand where change is occurring and why.

TOXIC ALGAE

storm water

Accounting for growth- according to the Chesapeake Bay Program, the watershed still loses about 70 acres of forest a day. The majority of this loss is due to development.

Attention to protections that are sustainable in a changing climate

focus should be made toward restoring HQ and EV impairments to agriculture by restoring and protecting riparian areas (livestock exclusion fencing) and ensuring cropland BMPs are implemented

hydrologic connectivity between shallow/open water and land.

wetlands restoration, creation and protection needs to be part of urban landscapes. Maybe a priority due to cost and complexity.

Maintain recreation uses (fishing, swimming, pets)

Enforce net gains in riparian and tree canopy coverage at the county level.

The permanent protection of the shallow habitats, as well as land upstream of these habitats, should be foundational.

Use targeted approach that incorporates areas that will have the greatest env. outcomes and local landowner concerns/ interests

Modeling: must account for benthic primary production (not just SAV) in healthy shallow water

Development of metrics of success, and monitoring to show whether actions are leading to achievement of goals.

Tidal and nontidal adjacent wetlands restoration and creation

conserve marsh migration corridors

onto private shorelines

dark false mussels linked to dog illnesses/ deaths

There will be areas that will be shallow water habitats that are not habitats now. Can we help owners protect them or buy them out when equitable and start preparing areas?

Brook trout habitat. If it's intrinsically important to maintain the eastern brook trout despite climate change, we need to protect now all areas that can survive climate change

Permanent land protection and landscape scale conservation should be foundational to the Bay Program's efforts

I spoke with VA CZM about combining the CBPA and Tidal Wetlands regulations to integrate regulation and manage across the continuum

focus on how SW habitats will shift in area and location under future conditions of SLR, especially when ecosystems transform (e.g. tidal fresh to saline)

projects with co-benefits for ecosystem services and meeting the shared goals of multiple parties

Really need to push for urban hardened shorelines as priority areas for diversification of shallow water habitat

hubs and corridors of protected areas in a landscape across the landscape.

Private property needs to be addressed. Shallow water (streams) cross so many private properties. Streamline permitting, working with property owners

Geographic, along flow paths feeding shallow water, and People, to support and adopt practices

Headwater streams, particularly cold water habitat (i.e. brook trout)

Nutrient ratios are important in detemining what type of primary producers are present. Impacts whole food web

reduce loading from septics

PEOPLE

Improving understanding of living resource responses to habitat and WQ

how can AI be used as a tool to support all over the ideas expressed here

All habitat types are worthy of focus. High quality systems for habitat should have protective/enhancement focus, as well as those that can be improved for living resources.

Programs and process that enable adaptation. Regulatory systems are not adaptive

permanent protection of riparian buffers

People focused, allow for place-based difference in emphasis.

restoration of riparian buffers

QUESTION 3: How would you go about getting to your vision of healthy and sustainable shallow water habitats? You can't do everything so think about the top two things you would focus on?

fund maintenance and adaptive management efforts

Permanent landscape conservation/ protection

Need to engage the community at the neighborhood level. How? We need significant simplification of federal grant program application and administration.

ensure restoration projects are properly maintained over the long-term

fund restoration projects on private property

DOD lands for projects

map out impairments that involve agriculture in EV and HQ watersheds then focus on saturating these watersheds with BMPs to restore riparian health while controlling runoff and keeping soil on farm

Rethink "monitoring" in shallow waters to improve our understanding of changes and to improve Lew's models

fund long-term monitoring efforts

require the beneficial use of dredge material for use in thin layer placement when feasible? No waste of a valuable resource

Balanced nutrient reductions!

Better monitoring of macroalgae and benthic algae.

Develop crediting protocol to drive market forces to increase broader funding for shallow water habitat

Improve outreach and education with private landowners about--and financial incentives for--natural shorelines.

We need to establish a basis for crediting shallow water habitat to use market processes to advance goals of shallow water habitat

governance systems that allow for/ enable shifting shores and changes in shallow water systems

Fee simple and easements for tidal marsh retreat. ✓

Wetlands specific funding. Separate from other Nature based solutions.

State/watershed riparian buffer and cattle exclusion laws. Partnerships with local jurisdictions to scale up headwater restoration.

replacing armored shorelines with living and natural shorelines, and reducing sources of sediment

Build capacity in states to focus on whole system shallow-water restoration and protection to be able to implement locally-led strategies and leverage federal $

Educating communities on its importance, restoration and protection efforts and how they too can get involved.

Inoculate all tidal marsh restoration projects with ribbed mussels for erosion resistance and improved water quality

Programmatic support-crediting, funding, regulation for projects which will maintain or improve shallow water habitats, disincentives for projects which fail to do this

Better development best management practices (that are enforced)!

Enhance targeting to connect between outcomes, such that multiple outcomes are met with individual conservation and restoration efforts.

synthesize current efforts to understand future location and conditions of SW habitats, identify gaps, priority ecosystem transformations

Community-led watershed planning for conservation and restoration, designed to meet community and local economic needs as well as environmental goals

+ Utilize local knowledge to inform decision making and co-development of adaptation strategies

TMDL "credits" also need to incorporate local stream/water health, not just delivery to Bay mainstem

Change the TMDL- move it to EPA R3 in Philadelphia and include a temperature TMDL in headwaters

Streamlining existing conservation funding to provide flexible and holistic funding to restore/ protect entire systems.

Brook Trout WG's plan to work with local government to protect habitat is good- expand the pilot in MD and PA as quickly as possible, race against the clock w/climate change

Baywide plastic bag/straw/etc. ban

QUESTION 4: What sort of public or community engagement strategies would be most successful for connecting the public to shallow water habitats?

Focus on equity and communities of color.

recognize communities who rely on fishing for food

The other 4 steering committee small groups could consider a similar meeting as this one

Through State Park and county park access areas

BMP "fact sheets" - plain language documents explaining different BMPs, why, how, etc. to combat misinformation (Ex: Stream restoration)

Coordinate with groups that plan community events

Work with schools and the Chesapeake Bay units they study

Develop literacy programs for adults, not just school kids. CBF's VOICES program is a good model. Expand that throughout the Bay!

Highlight the value of healthy shallow waters to recreational anglers

Include markets for WQ, carbon, other nature based solutions services

Work with ecumenical faith based organizations

Links to drinking water/ mailings via drinking water or sewar bills

Town Halls, Community Collaboration Events, Imbedding Community Captains in Orgs to ensure the community stays abreast of updated information & efforts.

Make it easy to read.

Paired technical and financial assistance, with field tours and community stipends where needed for understanding and active participation

Work with aquaculturist

Simplify federal grant application and admin procedures.

Make shallow water habitats cool (no pun intended). I.e., use social media and tie in shallow water with something more universally relatable

Look into working with recreation organizations / local businesses that use shallow water habitats (SUP, fishing charters, etc) to provide educational components

Use of Hedonic Pricing Indexes - private lands with trees and wetlands are worth more - to show the economic incentive to landowners.

Offer incentive for volunteer opportunities out on the water. People feel more connected to the problem if they spend more time around it.

provide groups/people a grant writer! :)

link reductions of plastics/trash/solid waste to tax benefits for local communities/citizens.

Landowner incentive programs (taxes, payments etc...), highlighting landowners who are being good stewards of their property.

use marketing & advertising principles

use existing networks - Chesapeake Monitoring Cooperative, Waterkeepers, Watershed Stewards Alliance, other local nonprofits

QUESTION 5: How can the bay program add value to new or ongoing work in shallow water habitats? (Examples could include coordination, policy, science support)

Science Help: Monitoring toxic benthic algal mats and understanding of toxin fate and transport. Cyanotoxins (microcystin, saxitoxin and anatoxin) docume

Incorporate a revised plan for shallow water quality monitoring, while the States' monitoring infrastructure is still intact after 20 years of Round 1 of monitoring throughout the Bay.

STAC reports providing justification

Trusted source of science

focus on restoring sub-watersheds with local impairments rather than general load reductions to the Bay that do not restore local waters

Connect the terrestrial/freshwater/ estuary divide among organizations

Pet and human health

language really does matter. how shallow waters is defined, how it's different/or the same/ from riparian complexes (e.g. stream-floodplain-wet land)

Technical Assistance (e.g. for grant applications for small orgs)

funding for permanent landscape conservation

Policy- governance systems to allow/ enable shifting shores and shallow water systems

Update resource management with more updated science focusing on historic changes (much greater proportion of shallow water habitat today as result of our shoreline development)

More interactions with community.

Routine monitoring of benthic algae and macrolage

To be more effective leaders, the bay program agencies could work to build more trust with each other. The different agencies are partners not adversaries

Communications useful for local jurisdictions and communities to illustrate issues and options for conservation and restoration

Longer term monitoring and adaptive management

Streamline workgroups to encourage better collaboration and working beyond 1 practice - i.e. wetlands and buffers - to focus on restoring systems.

Space for keeping track of how the different programs are working towards cross-cutting goals

Co-benefit economic analyses

Connect outcomes to reflect that this is an ecosystem, not simply separate outcomes. Especially so in the shallow waters and edges

Revise crediting and accountability to allow for actual habitat improvements rather than only nutrients and sediment.

Transport of freshwater toxins downstream (and into seafood)

Wetlands Academy for practitioners, permitters, and homeowners

Funding to states to add capacity

rspersion of shallow wate

QUESTION 6: Are there any other considerations for the Shallow Water Habitat Small Group as we move through our work?

The total acreage of wetlands is decreasing. We need plans that integrate and fund permanent conservation

The EC needs to be more accountable for progress

Make it fun.

Make it easy to read.

Remember why we do what we do.

Each state needs to have lead staff for each goal and have them accountable for making progress.

Wetland goal originally only to off-set historic loss. Need to look forward to anticipated areal extent and geographies for future wetlands

Managed and REGULATE shallow waters as a single, integrated ecosystem. In VA, they are regulated as spearate entities.

Working with breweries, wineries and distilleries

Interpretive Dance

Drones (but seriously, cool tech will bring in people)

carbon sequestration! Preserve existing and expand capacity