

An aerial photograph showing a winding creek through a lush green landscape. The creek is surrounded by dense trees and fields. In the background, there are patches of yellowish-brown fields, possibly harvested crops. The sky is clear and blue.

COVID-19 IMPACTS ON CHESAPEAKE BAY MANAGEMENT

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*Skipton Creek in Talbot County, Md.
(Photo by Chesapeake Bay Program)*

STAC COVID-19 MINI-WORKSHOP SERIES

Purpose:

This effort is to better understand and identify impacts, changing dynamics, and learning opportunities that may have come from COVID-19 to inform current and future efforts to reach management targets.

- Short term risks/impacts, changes, and learning opportunities for CBP
- Longer term risks/impacts, changes, and opportunities for CBP
- Comparison with other regions
- Identify critical needs, action steps

May 24 | Impacts of COVID-19
on Local Government

June 7 | Impacts of COVID-19
on Fisheries and Aquaculture

June 14 | Impacts of COVID-19
on Nutrient Dynamics

STAC 2020 BAY PARTNERSHIP SURVEY

In the fall of 2020, STAC sent a survey to the wider CBP partnership

- 49 respondents from the CBP, NGOs, state agencies, and local government officials
- Top choices:
 - (32%): Public-health effects/unemployment and loss of tax revenues for regulatory enforcement
 - (20%) Altering human behavior, altering living resources: change in water quality, habitat, ability to assess progress
 - (20%): Increased visitation/use/impact of public/outdoor spaces for recreation, especially in urban areas
 - (13%) Changes in nutrient loads: from shifts in air deposition and water use/wastewater treatment

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| ☰ | ▾ | Changes in nutrient loads: from shifts in air deposition and water use/wastewater treatment (PWS vs. septic, etc.) |
| ☰ | ▾ | Change in fishing pressure (less commercial, more recreational --> overall decreased pressure on fish populations) and aquaculture |
| ☰ | ▾ | Altering human behavior, altering living resources: change in water quality, habitat, ability to assess progress |
| ☰ | ▾ | Disruption to agricultural production: disruption in agricultural supply chain that resulted in destruction of crops/flocks/herds, milk dumping |
| ☰ | ▾ | Increased visitation/use/impact of public/outdoor spaces for recreation, esp. in urban areas (Potomac, more) |
| ☰ | ▾ | Loss of some monitoring data and increased monitoring expenses due to social-distancing protocols |
| ☰ | ▾ | Public-health effects/unemployment and loss of tax revenues for regulatory enforcement, BMP installation, water quality monitoring |

MAIN QUESTIONS

- What are our underlying assumptions about how the impacts of covid-19 might be affecting the system? What do we think might be happening that might not turn out to be true?
- Do we see due to shocks to the system? What should we look for, and what could happen?
- Brainstorm potential impacts on the system through other mechanisms
- What management actions can we take from this? What do we do now? Is there anything we can learn from this that would cause us to do something differently?

PRELIMINARY THEMES: LOCAL GOVERNMENT DISCUSSION

Challenges

- Staff and funding impacts→ redirected money and effort away from environmental programs
- Lack of funding, followed by increased federal funding (CARES Act) required quick turnaround for deciding areas of priority
- Lack of necessary infrastructure to work remotely, especially in rural regions (broadband)
- Increased public investment in access usage→ trash, trail and amenity usage, etc
- Loss of institutional knowledge from COVID losses, staffing changes

Opportunities and lessons learned

- People and communities matter, not just maximizing lbs reduced/\$
- Build emergency preparedness, DEIJ, career pipelines, and resiliency into all programs
- Interagency collaboration critical
- Importance of outdoor spaces and outdoor education

PRELIMINARY THEMES: FISHERIES & AQUACULTURE

Decreased restaurant demand

- Massive blow to commercial fisheries, some stopped harvesting and fishing
- Labor: employees fired/laid off/terminated at the beginning of the pandemic, now labor shortage. Not as many temporary workers (H2A, H2B visas)
- Move to direct marketing to consumers
- A lot of unintended consequences for supply chain and allied industries (equipment, materials)

Difficult to gauge impacts on fish population

- Responding to multiple variables (environment, harvest, longevity, etc.)
- NOAA surveys and federally managed species data were not released last year

State and regional resiliency

- CARE funds allocated to states through NOAA; massive push by Virginia to get direct payments out as fast as possible
- MD DNR sampling continued; Atlantic Coastal Cooperative Statistics Program (ACCSP) commercial fisheries continued; independent data collection continued (CHESMAP trawl survey, NEMAP survey, striped bass monitoring, etc.)

Opportunity for ecosystem projects

- Sea Grant re-appropriated \$3.4 million to support 1) shellfish aquaculture (farm to table, sea food trails) 2) rapid/long term need assessments

PRELIMINARY THEMES: NUTRIENT DYNAMICS

Changing nutrient dynamic across the landscape

- Changes in mobility/traffic patterns → changes in atmospheric deposition
- Reallocation of loads across the landscape impacting septic and WWTP → monitored increase in E. coli in DC waterways
- Increase in recreational usage, particularly boating

Smaller tributary impacts

- Algal blooms originating in tributaries and spreading into mainstem Chesapeake Bay
- Land-water interface

Agricultural and food supply impacts

- Economic impacts to industry and workers in food supply chain
- “Depopulation” is having continued economic impacts
- CARES Act providing relief but challenging to apply for
- Reduced restaurant demand led to mass disposal of agricultural products (milk, poultry) → how to manage the nutrients from disposal and adapt to changing market demands

Data needs

- Lack of data from the past year
- Long-term data sets are vital, may need to interpolate given data gaps
- Multidisciplinary data sets really important for identifying potential issues (e.g., energy use critical to identifying people’s location)

SYNERGIES ACROSS SYSTEMS

Staffing and funding impacts

- Redirecting efforts away from CB restoration
- Capacity issues (storm water, broadband in rural areas)
- Funding “whiplash”: challenge to prioritize funding quickly (big impact, big gain)

Recreational impacts

- Importance of outdoor spaces and outdoor education
- 19-20% increase in fishing licenses

Emergency preparedness and resiliency programs

- Adapt a broader view of hazard mitigation and/or resilience
- Focus on the most vulnerable; invest of American emergency funds

Invest in people and communities

- Emphasis on equity and inclusion going forward
- Address inequalities in pollution burden

Data-gaps

- Importance of long-term and multidisciplinary data
- Opportunity for incorporating spatial-scale data

NEXT STEPS?

- Summarize survey, workshop results
- Share with key decisionmakers
- Continue to collect data, look at longer term trends
- More?

STAC workshop recommendation 'SPURR' format:

S - Specific and granular

P - Programmatic partner

U - Urgency

R - Risk of not taking action

R - Resources and timing