

STAC COVID-19 Review + Workshop

Background: As noted in a recent article, COVID-19 has both short-term impacts “dominated by direct effects arising from reduced human activity” and longer lasting impacts “likely to result from cascading effects of the economic recession on global poverty, green investment and human behaviour.” (Diffenbaugh et al 2020). The article further notes that “[t]hese impacts offer the opportunity for novel insight” through “targeted data collection, coordinated model experiments and solution-oriented randomized controlled trials, during and after the pandemic.”

Likewise, COVID-19 has created impacts and changed dynamics for the Chesapeake Bay and its watershed. The purpose of this review and workshop is to identify impacts, changing dynamics, and novel insights that may have come from COVID-19 to inform current and future efforts to reach management targets for the Chesapeake Bay.

This effort is focused on both short term and longer term dynamics. For the short term (months), we are looking for whether there is scientific data to gather now while the impacts of COVID-19 are currently being felt across the watershed and estuary. In addition, there may be management actions that can be taken now. For the longer-term (years), we seek to better understand the impacts, changing dynamics, and novel insights that may come from COVID-19.

Potential steps to develop and refine the agenda in partnership across the CBP:

We view this process as iterative to collect and gather insights, then review and analyze them in conjunction with CBP staff. We are imagining the following steps:

- A. Initial brainstorm during Sept. 14, 2020 STAC meeting
 1. Are there changes in patterns on how resources are being used by the public or in other watershed related dynamics?
 2. Has COVID affected implementation of the [Chesapeake Bay Watershed Agreement's](#) goals and outcomes. If so, how?
 3. Are there data that has been collected or can be collected now to capture changes in the system (e.g., time sensitive data that shows up given current COVID-impacts)? Does this information help provide novel insights or help resolve uncertainties?
 4. Are there key topics that we should do a deeper dive as part of a workshop?
- B. Request information from STAC's Strategic Gap Analysis (SGA)
 - Are there COVID-19 related issues or impacts that come up in the gap analysis, or opportunities to run scenarios that might provide novel insights?
- C. Reach out to other CBP groups (LGAC, CAC, STAR, GITs, LTER, SRS, etc.) in Sept/Oct.
 - Potential survey questions: What COVID-19 risks, dynamics, and learning opportunities do you see (short term, longer term)? In what ways? In what locations and/or scale?
 - What would be useful for a deeper focus/workshop?
- D. Consult with the Management Board in September about this effort
- E. Set up a workshop or series of intensive discussions in Nov/Dec. to discuss findings, think about stress testing the CBP models

Potential topics for the workshop:

- Short term risks/impacts, changes, and learning opportunities for CBP: what and where (location, scale)?
 - Example: changing fishing pressure (less commercial, more recreational); interplay w/ crab/oyster fisheries
 - Example: disruption to ag production; what impacts?
 - Example: changes to waste streams: wastewater treatment, stormwater, plastics, etc. What impact?
 - Example: loss of monitoring data (what, where)? Impact of such losses?
 - Example: change in air pollution due to less traffic (less nitrate loading)
 - Example: increased use of public/outdoor spaces for recreation

- Longer term risks/impacts, changes, and opportunities for CBP
 - Example: budgetary impacts?
 - Example: cuts to monitoring programs?
 - Example: changes to BMPs due to COVID-19 impacts?

- Comparison with other regions
 - Everglades
 - Tampa Bay
 - Puget Sound
 - Baltic

- Identify critical needs, action steps

References:

Diffenbaugh, N.S., Field, C.B., Appel, E.A. *et al.* The COVID-19 lockdowns: a window into the Earth System. *Nat Rev Earth Environ* **1**, 470–481 (2020). <https://doi.org/10.1038/s43017-020-0079-1>