Stream Health Work Group
2021 CBP GIT Project Initiative

Management Approaches to Reduce Stressors of Stream Health

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Which of the **key stressors** affecting stream health in the Chesapeake Bay watershed **can be changed through management activities**?

- Will address an information gap of the effectiveness of BMPs to reduce or eliminate the impact of stressors on stream health
- Identify watershed management actions and how they impact stressors affecting stream health through a literature review
- Phase 2 of a three-phase work plan to identify in-stream stressors, management impacts and additional metrics of measuring stream health

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Which of the **key stressors** affecting stream health in the Chesapeake Bay watershed **can be changed through management activities**?

- Building upon Phase 1 project to identify in-stream stressors that are most affecting stream health as measured by BIBI scores
  - Phase 1 conducted by USGS
- Center for Watershed Protection is conducting Phase 2
- Phase 2 is funded by 2020 CBP GIT Project Initiative

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Why is this study important?

- Currently, restoration professionals evaluate and prioritize management actions based on their cost effectiveness of nutrient and sediment reductions
- Monitoring to evaluate the effectiveness of BMP implementation is based on the improvement of stream health
  - Chessie BIBI metric – just focuses on Benthic macroinvertebrate community
- There is a disconnect between BMPs for Bay health (nutrient and sediments) and what BMPs best improve local stream health

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How will this study improve stream health?

- Linking BMPs to key stressors of local stream health can help identify practices with the greatest potential to improve stream health
  - not only reducing nutrients and sediments but other factors that impact stream health

- Jurisdictions will have more information on the co-benefits of BMPs
  - more understanding of the impact of specific BMPs on local stream health and the potential trajectory of recovery depending on which stressors are addressed
  - Include co-benefits and additional stressor reductions in BMP prioritization

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How will this study improve stream health?

- Results will help SHWG identify additional metrics for measuring stream health
- New metrics may be more immediately responsive to management activities than Benthic communities
  - Faster turn-around in measuring stream health improvement can further guide management actions

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When will results be available?

- CWP and the project's Technical Advisory Group have discussed preliminary stressors and management activities to focus literature review
- CWP is currently generating targeted reference database for use in the review
- Draft synthesis report is estimated to be completed in late December 2021
- Final synthesis report is estimated to be available in Spring 2022

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Discussion:

Are there opportunities for TCW involvement and collaboration?