



Timeline for Updating Tributary Summaries

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4/27/2022

Content of Tributary Summaries

- Purpose and Scope
 - Time - 1 week
- Location - Oliva
 - Watershed Physiography
 - Should stay the same
 - Land Use
 - Time - 1 Week
 - Tidal Waters and Stations
 - Should stay the same
- Tidal Water Quality Status - Qian and Rebecca
 - Time - 2 weeks
- Tidal Water Quality Trends - Rebecca
 - Time - 1 month
 - Water Temperature - Need to Add
- Factors Affecting Trends
 - Watershed Factors
 - Effects of Physical Setting - Jimmy Webber
 - Update Table of flow normalized TN, TP, SS for nontidal network
 - Estimated Nutrient and Sediment Loads - Qian
 - Time - 1 Week
 - Expected Effects of Changing Watershed Conditions - Olivia
 - Time - 1 week
 - Best Management Practices (BMPs) Implementation - Olivia
 - Time - 1 week
 - Tidal Factors
 - Add climate rainfall intensity - Model Team, Gopal
 - Rainfall volume - Model Team, Gopal
 - Water Quality Standards Attainment Indicator Graph - Qian
 - Show how storms and nutrient improvements impact trend
 - Volume graphs - Tom
 - Insights on Changes in the Potomac
 - Only needs to be updated for Potomac and Rappahannock
- Summary
- Glossary - from Rappahannock
- Review - Vanessa, Breck, Alex
 - 1 month to review

Proposed Timeline: Milestones



Questions and Action Items

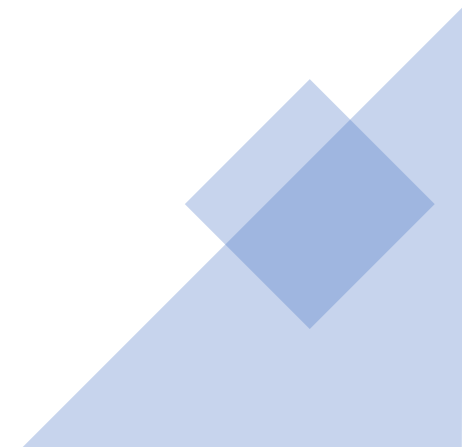
1. For the Tidal Trends section, is the 1-month timeline to edit one tributary summary or to change all of them?
 2. What month is the WQSA indicator updated?
 3. Which sections can be updated simultaneously?
 4. Which section is most appropriate for the climate change data? (Tidal Factors?)
 5. Which tributary summaries should be our priority for updating?
- **Action Item:** Get time estimate from Jimmy Webber for effects of physical setting section.
 - **Action Item:** Meet with Tom about volume figure (how the volume of segments impact nutrient loads of that segment).
 - **Action Item:** Work with Gopal and the modeling team to introduce climate rainfall intensity and rainfall volume (climate section).

Proposed Timeline: Details

- **May 2022** – 2021 Progress is finalized
- **June 2022** – CAST-21 (milestone update) Approved
- **May 2022 to July 2022** – Develop Climate Change Section and Volume Graphs
- **June 2022** – Update Land Use, Expected Effects of Changing Watershed Conditions, BMP Implementation (2 wks)
- **July 2022** – Update Estimated Nutrient and Sediment Loads (1 wk)
- **July 2022** – Update Effects of Physical Setting TN, TP, SS Table
- **July 2022 – August 2022** – Add Climate Rainfall Intensity and Rainfall Volume Sections
- **July 2022 – August 2022** – Update Tidal Water Quality Status with 2017-2019 data (2 wks) and Water Quality Standards Attainment Indicator Graph
- **November 2022** - Tidal Trends made available
- **November 2022** – Update Purpose and Scope with Water Temperature Text (1 wk)
- **December 2022 – February 2023** – Update Tidal Water Quality Trends (TN, TP, Chlorophyll, Secchi Disk Depth; Add Water Temperature section (1 month)
- **January 2023** – Create Glossary for Tributary Summaries
- **March 2023 – April 2023** – Review Tributary Summary Edits (1 month)
- **TBD**- Update Insights on Changes for Potomac and Rappahannock



The Climate Change Section

- Adapted from Shenk et al., 2021
 - Draft of climate change section (general introduction) has been provided by the modeling workgroup for ITAT's review.
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The Climate Change Section

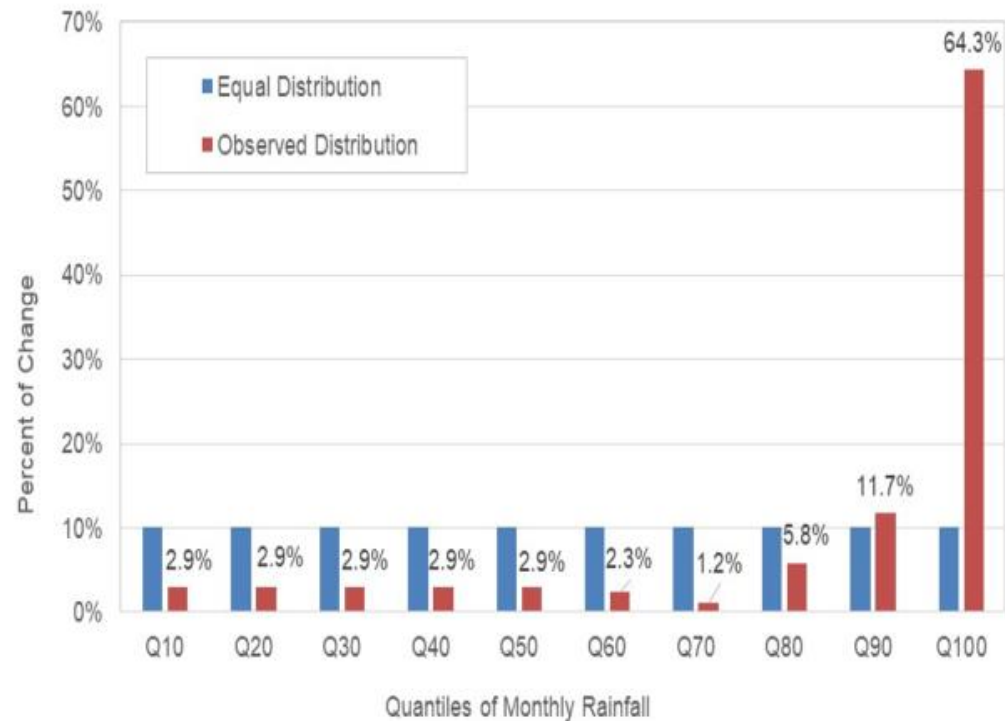


Figure 1. Observed changes in rainfall intensity over the last century. The equal allocation distribution (blue) is contrasted with the distribution obtained based on observed changes (red).

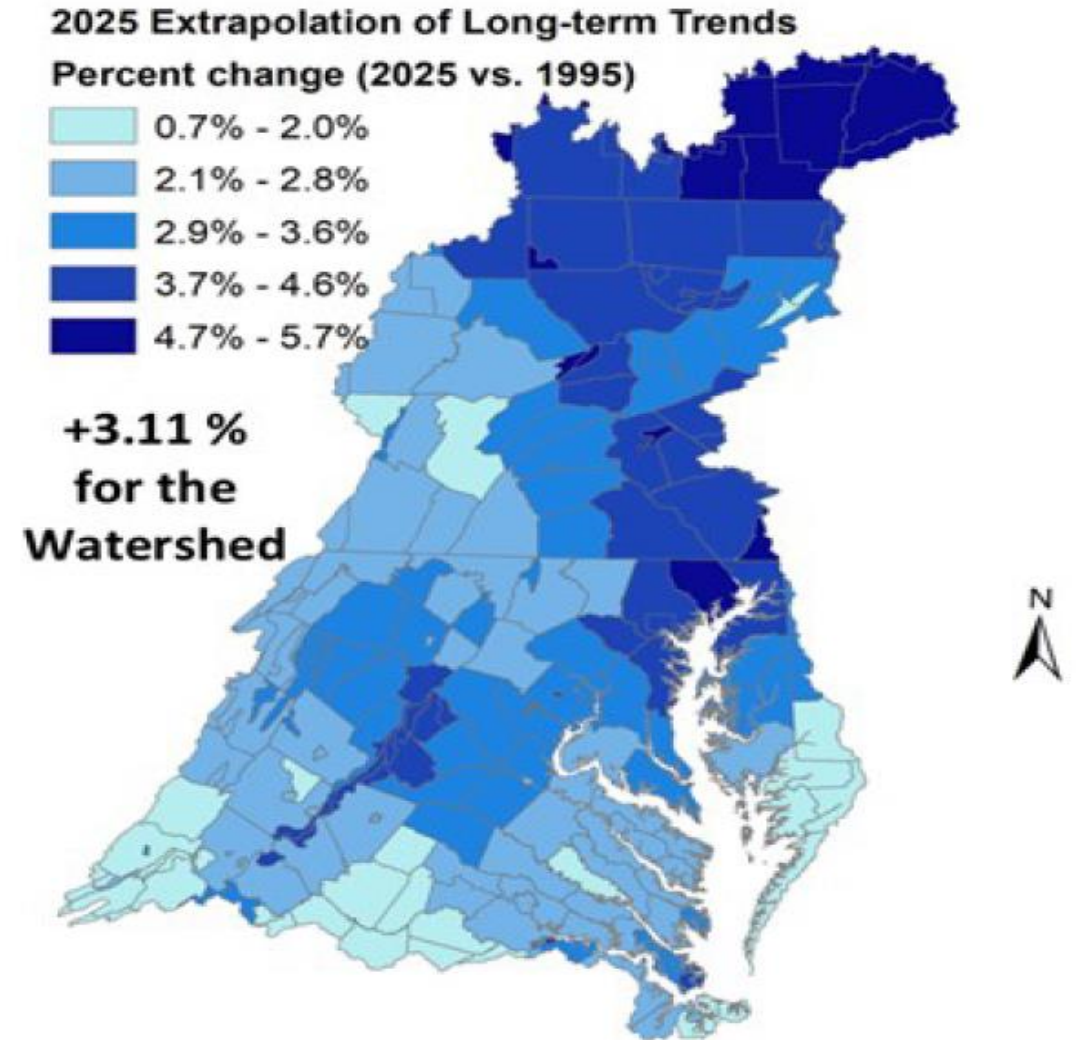


Figure 2. Estimated average annual change in precipitation volume (as percent change) for the land segments (counties) in the Chesapeake Bay watershed are shown for 2025. The change in rainfall volume with respect to 1995 are based on an extrapolation of long-term trends from a century of PRISM rainfall observations.