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Maryland's Healthy Watersheds: Assessment, Status, and Tracking

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Presentation Outline

- Background
- Status Determination
- Current Status
- Tracking
- Summary



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Background

- MD designated Tier II (high quality) stream segments provide the watershed areas for the state-identified healthy watersheds
- COMAR (26.08.02.04-1) defines:
 - Tier II designation criteria
 - When there is no assimilative capacity, e.g. Tier II conditions are not maintained



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Background

- Streams are sampled using the Maryland Biological Stream Survey (MBSS) protocols or comparable methods.
- To be designated Tier II based on biological condition, the regulation requires that data is within 20% of the maximum attainable value.



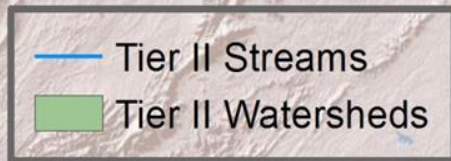
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DESIGNATED TIER II WATERS

253 designated Tier II waters.

Streams are protected at the watershed level.

Tier II watersheds cover approximately 20% of the State.



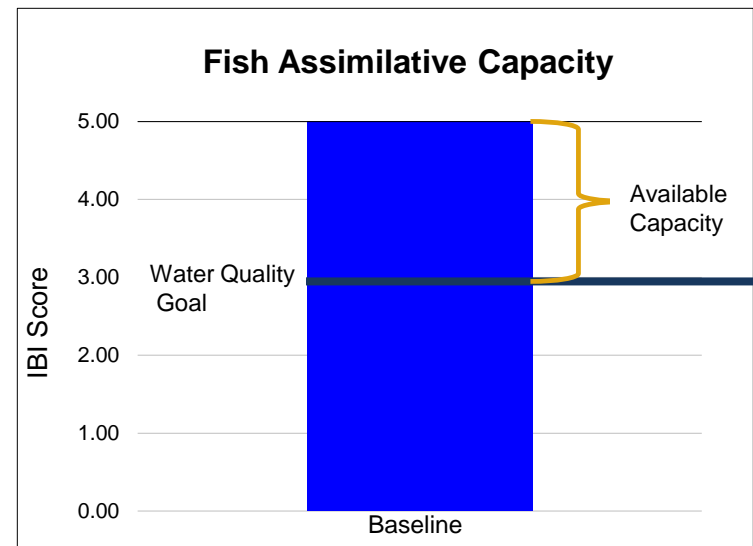
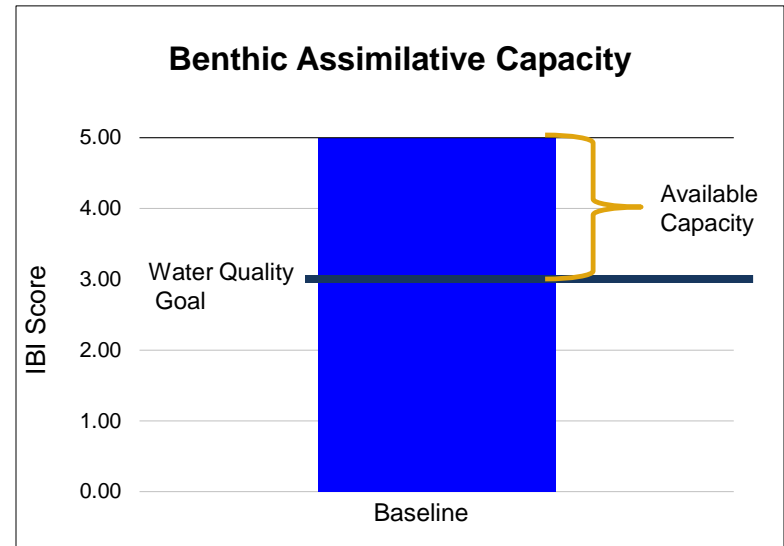
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Available Capacity

The difference
between the Tier II
baseline and the Tier I
biological water
quality criterion (3.00)

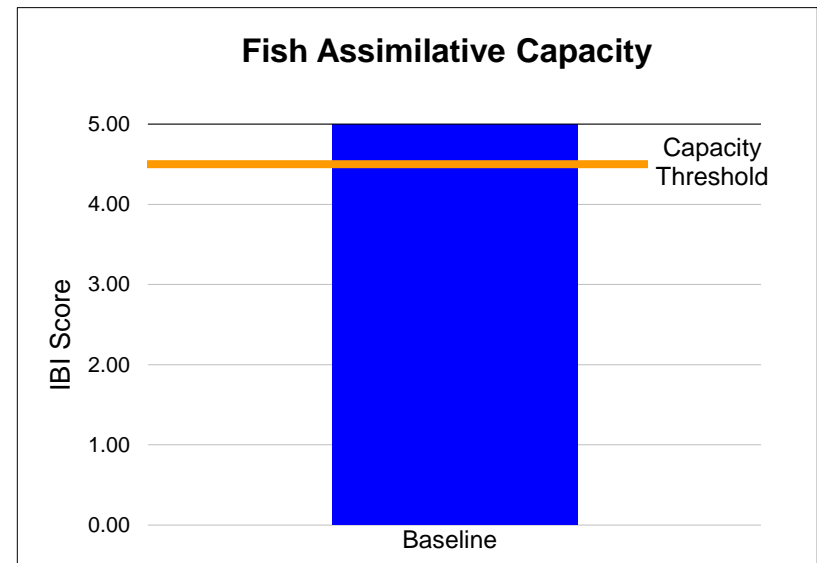
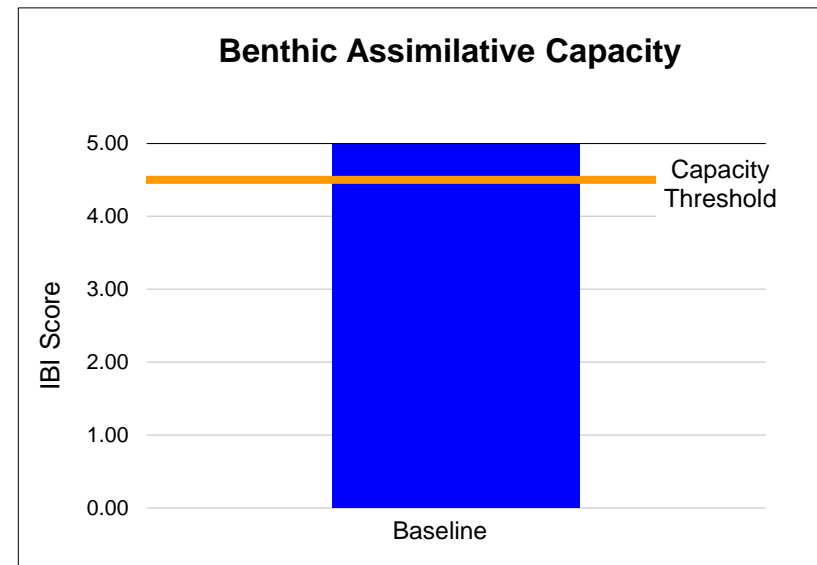




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Capacity Threshold

- The line at which available capacity is cumulatively reduced by more than 25% from the Tier II baseline.
- Capacity Threshold =
Baseline IBI – (2 x 25%)
- $5.00 - 0.5 = 4.50$

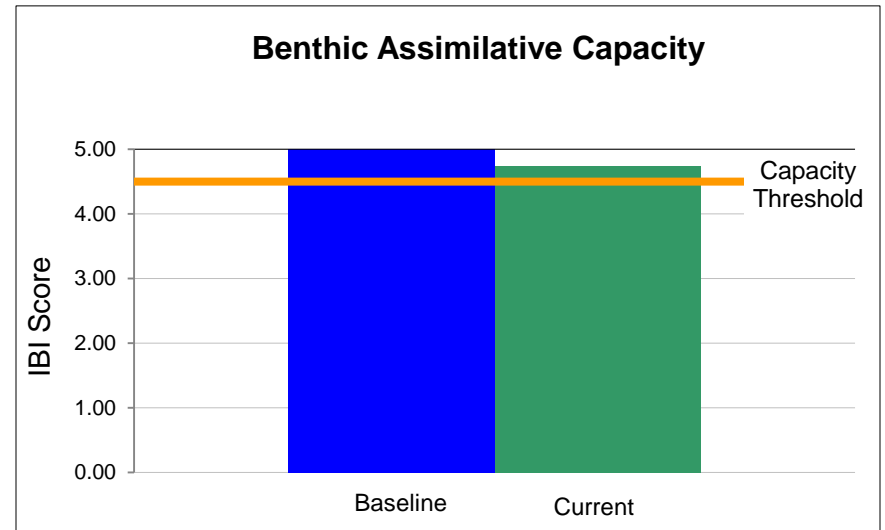




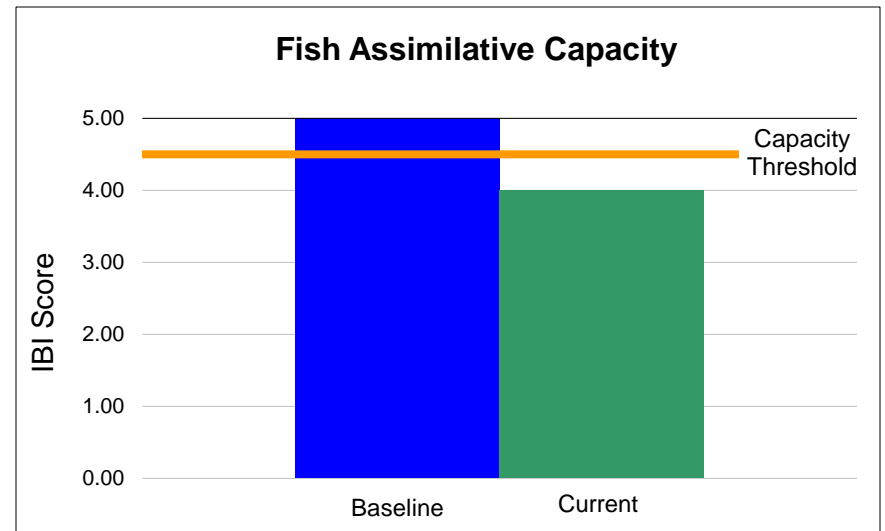
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Status Determination

Based on the difference
between the current IBI and
the capacity threshold



$$4.75 - 4.50 = 0.25$$

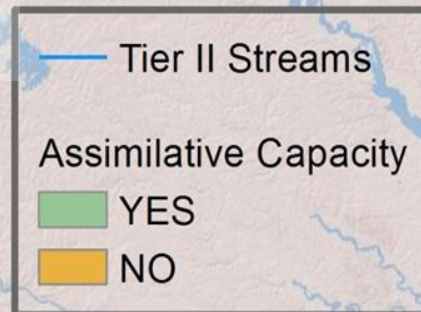


$$4.00 - 4.50 = -0.50$$

HEALTHY WATERSHED STATUS

109 Tier II streams have been re-sampled.

To date, 62 (24%) of all Tier II streams have no remaining assimilative capacity.



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Status Tracking

- MD has no formal status tracking program for healthy waters.
- Most data is provided by random surveys, or other monitoring programs that happen to include in some Tier II streams.
- MDE is monitoring Tier II waters with capacity that have a higher relative risk for a negative status change.



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Summary

- There are 253 designated Tier II stream segments in Maryland.
- Status e.g. assimilative capacity is defined in COMAR 26.08.02.04-1.
- 62 or ~25% of Tier II waters have no assimilative capacity, which is a negative status determination.
- There is no formal tracking process in place at this time.



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