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Tier II High Quality Waters 101

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Antidegradation Regulation: COMAR 26.08.02.04-2 (est. 2004)

- Defines how to designate Tier II waters
- Defines when an Antidegradation Tier II Review is required
- Defines when there is no assimilative capacity, e.g., Tier II conditions are not maintained
- Lays out the social and economic justification procedure when approval is granted, and water quality will be lowered



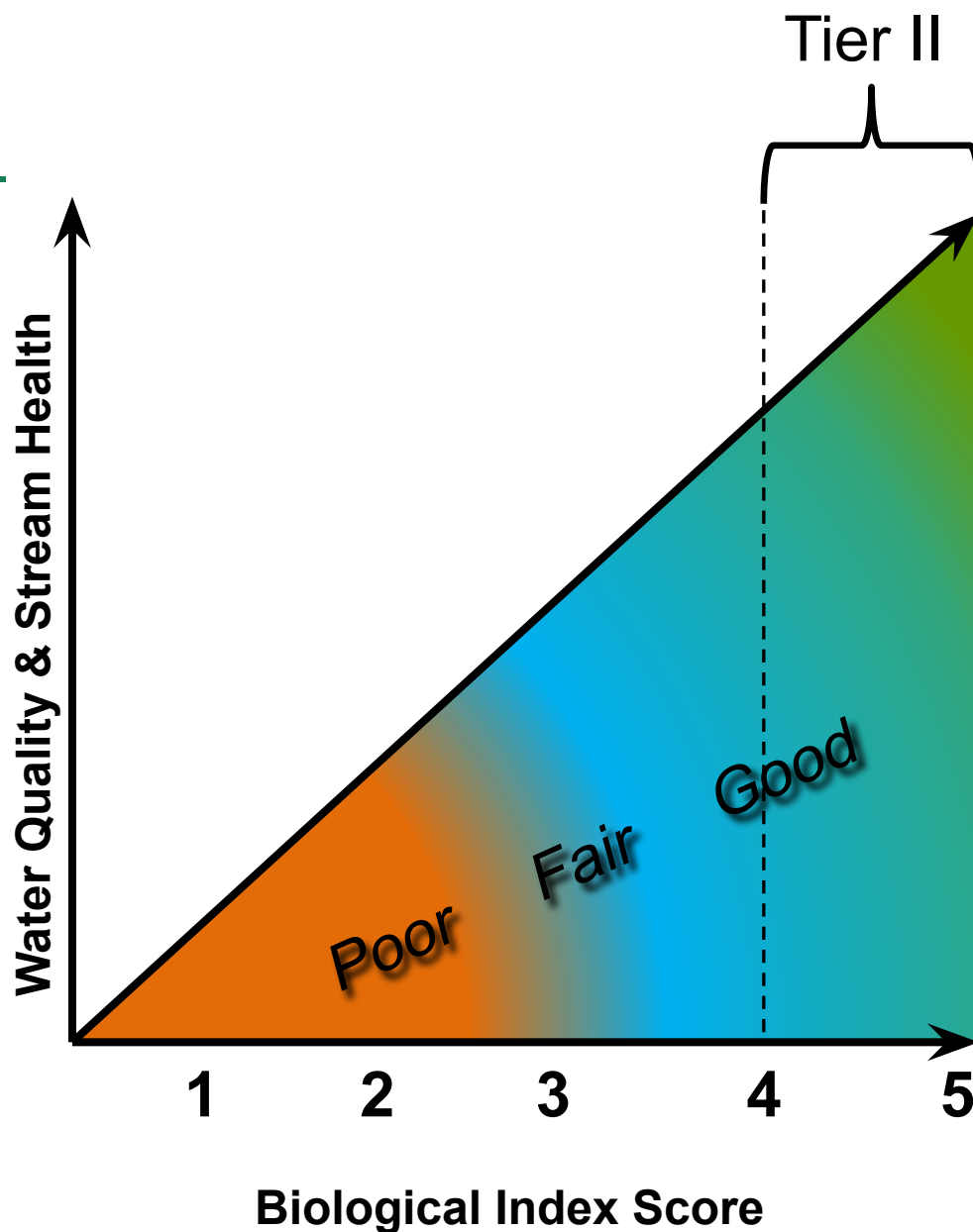
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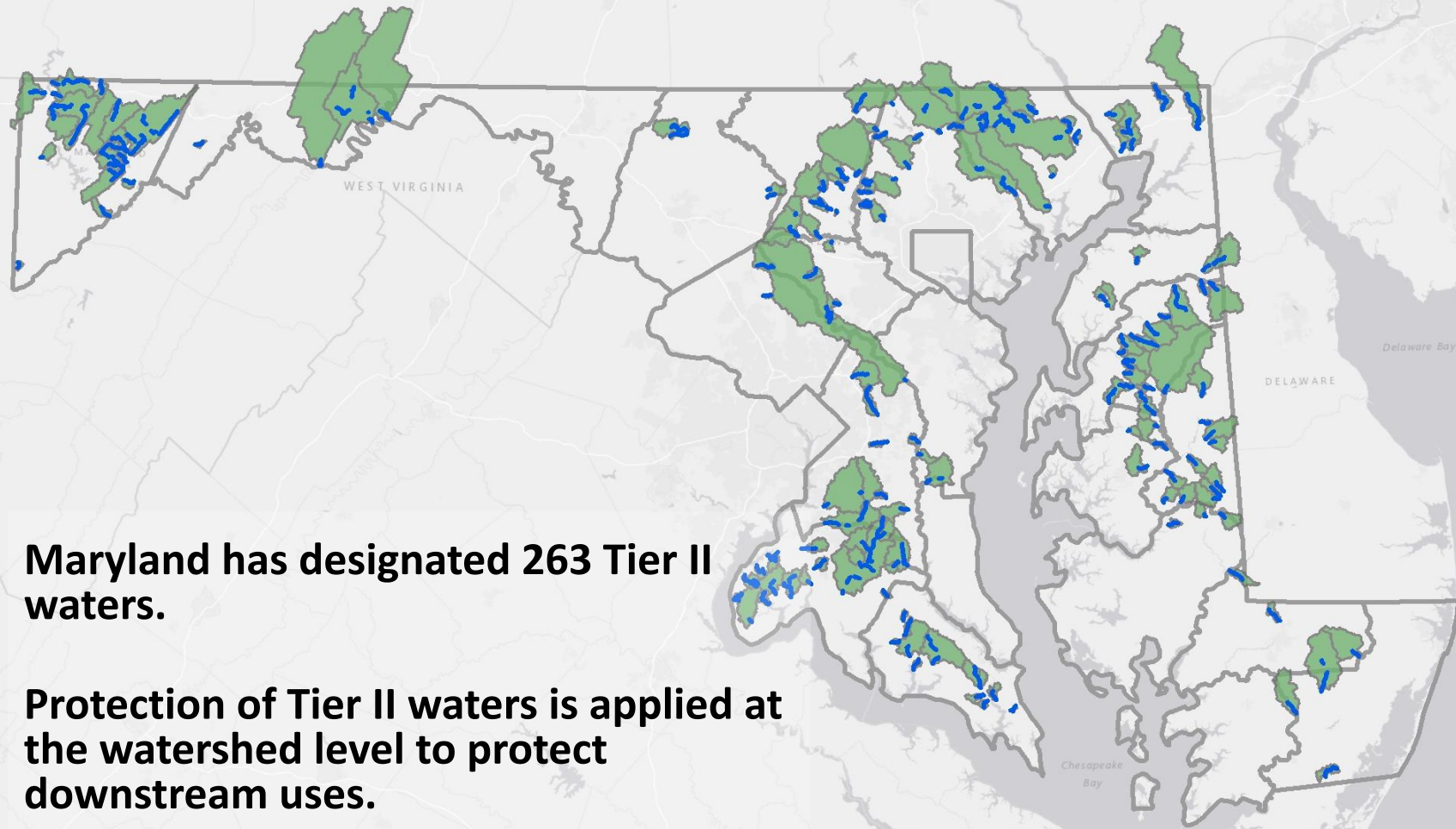
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Tier II Waters: Designation

- Streams are sampled using the Maryland Biological Stream Survey (MBSS) protocols
- MBSS assigns scores for stream benthic (bug) and fish assemblages
- To be designated Tier II, both scores must be ≥ 4.00



DESIGNATED TIER II WATERS



Maryland has designated 263 Tier II waters.

Protection of Tier II waters is applied at the watershed level to protect downstream uses.

Tier II watersheds cover approximately 20% of the State.



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Assimilative Capacity

- Assimilative Capacity is a quantitative way to determine if a designated Tier II stream is still of high quality, or if it has degraded.
- An assimilative capacity threshold IBI score accounts for natural variability. One threshold is developed for fish while a second is developed for benthics.
- If new data indicates that either the fish or benthic score falls below their perspective thresholds, the stream has no AC.
- Streams with no remaining AC are still Tier II streams. The stream never lose their designation.



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ASSIMILATIVE CAPACITY STATUS

In January of 2020, 62 (24%) of all Tier II streams had no remaining assimilative capacity.

In June 2024, 121 (46%) of all Tier II streams have no remaining assimilative capacity.

As of February 2026, 139 (53%) of all Tier II streams have no remaining assimilative capacity.



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Processes Screened for Tier II Review

- Water and Sewer Plan Amendments
- State Clearinghouse
- New NPDES permits or major modifications of an existing discharge permits
 - WWTP
 - General Permit for Stormwater Associated w/Construction Activity (NOI)
- Nontidal Wetlands and Waterways Construction Permits
- Surface Mining
- PPRP (solar, powerlines, other energy projects)



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Water and Sewer Plan Amendments: Early Awareness

- Identify all portions of the plan or amendment impacting Tier II stream or watershed
- Include avoidance and alternatives recommendations in letters that
 - May reflect Tier II review status and other important information in amendment language
 - May indicate that future Tier II coordination is necessary



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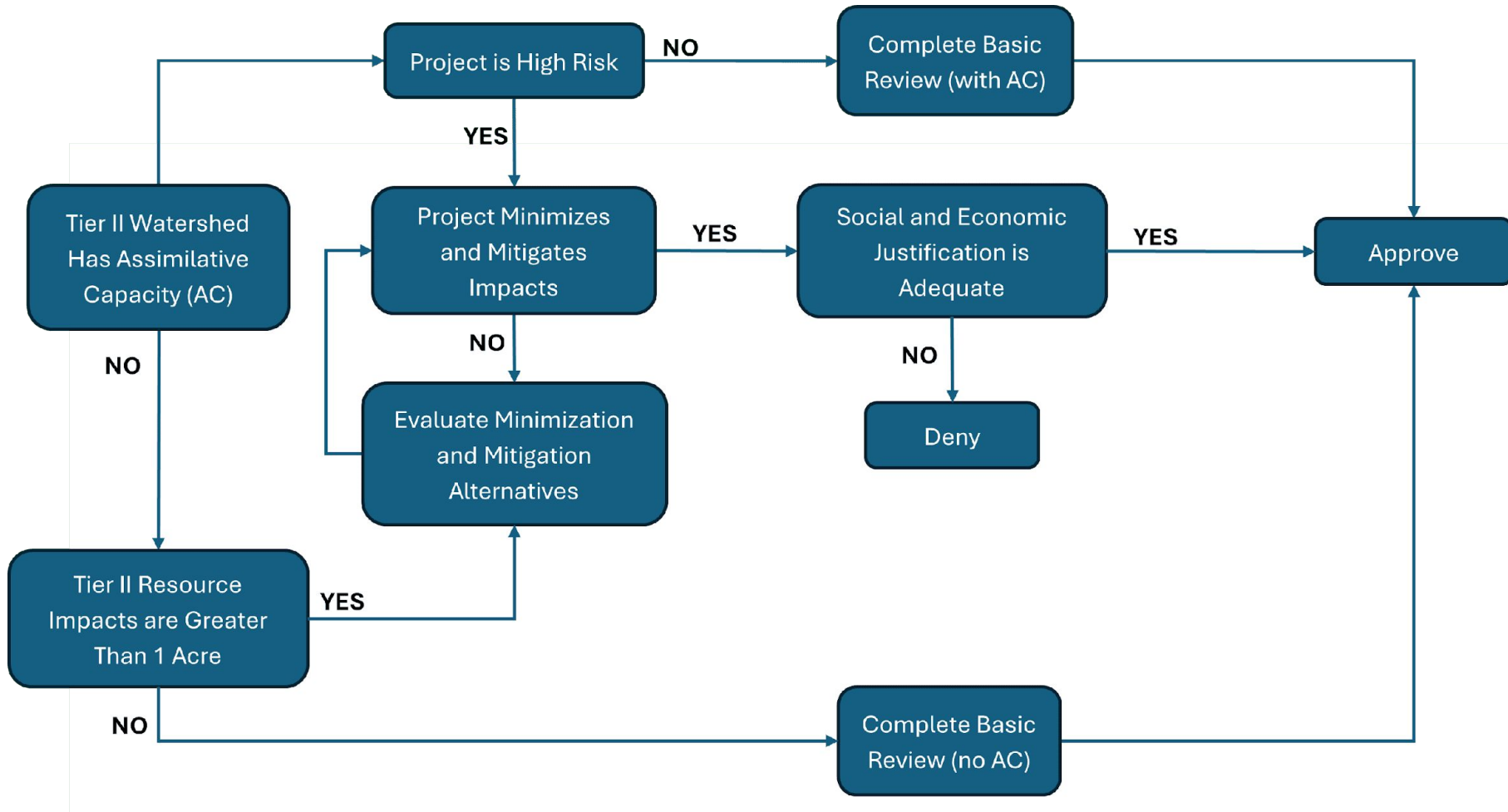
Wastewater Treatment Plant (WWTP) Reviews

- Applicant prepares Antidegradation Report for MDE review & comment
 - Avoidance (alternative site evaluation)
 - Minimization (alternative configurations and treatments)
 - Monitoring plans and Water quality monitoring data to determine additional permit conditions
- WWTPs with outstanding compliance issues are not eligible for Tier II Review unless the compliance issue will be resolved through the permit modification

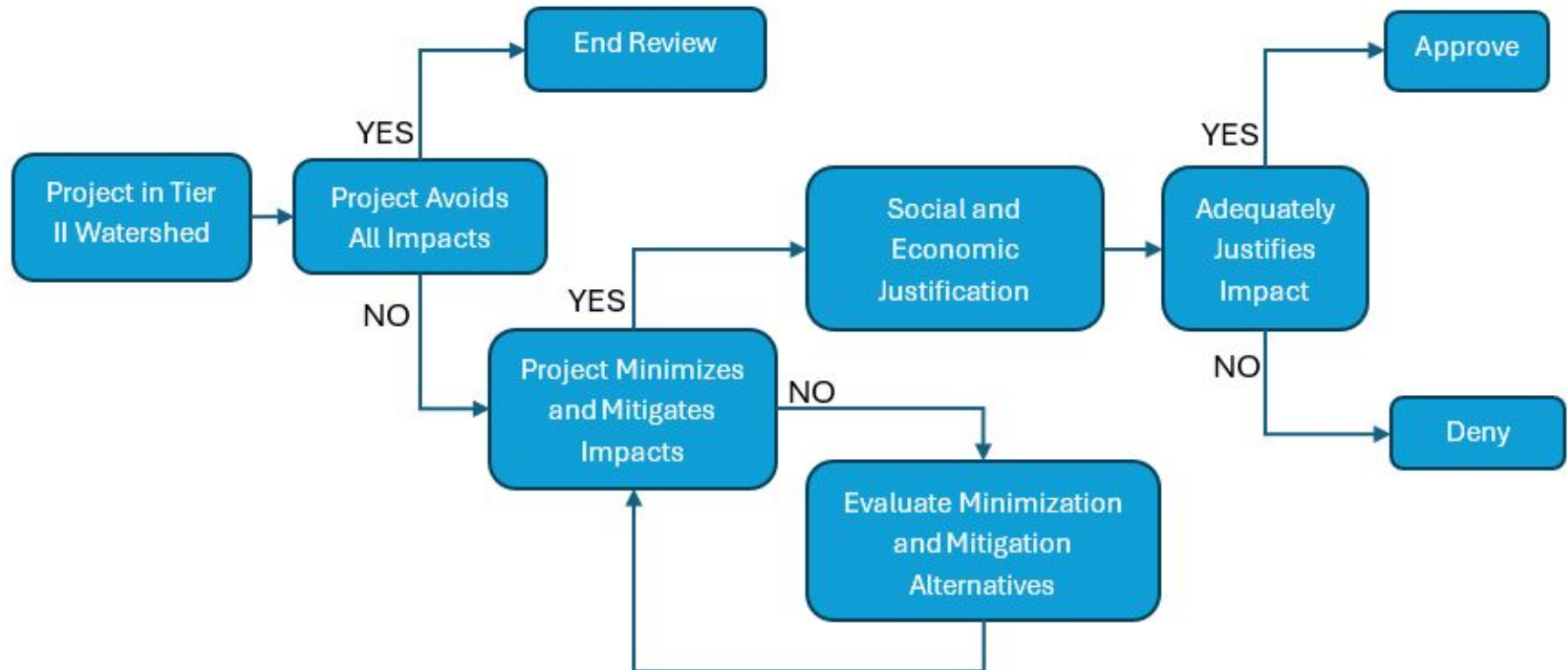


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Land Disturbing Activities Review (Nontidal Wetlands and Waterways Construction)



Land Disturbing Activities Review (20-CP)



Tier II Resources

- For Additional Information:
 - [Maryland's High Quality Waters Webpage](#)
 - [Maryland's High Quality Waters Outreach Page](#)
- For Screening: [Tier II Web Map](#)
- Contact: Angel Valdez
[\(angel.valdez@maryland.gov\)](mailto:angel.valdez@maryland.gov)



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