



Department of
**Environment &
Conservation**

Overview of recent changes to the Aquatic Resource Alteration Permit / 401 Certification Rules

Division of Water Resources

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The Tennessee Water Quality Control Act of 1977

- Recognizes that the waters of Tennessee are the property of the state and are held in public trust
- States that people have a right to unpolluted water
- Defines waters of the state
- Establishes the need for permits for the alteration of the physical, chemical, radiological, biological, or bacteriological properties of waters of the state



Stream or Wetland Alterations

- ❑ Require ARAP permits, either individual or general
- ❑ Must comply with water quality standards and protect for classified uses (act as 401 Water Quality Certifications)
- ❑ Cannot result in a condition of pollution
- ❑ Cannot result in a loss of water resource value (= compensatory mitigation requirements)



Aquatic Resource Alteration Permits

Common Types of Activities Requiring ARAP Permits :

- Stream encapsulations by pipe, culvert, or bridge
- Stream relocations
- Wetland alterations, including filling or draining
- Dredge or fill in streams and reservoirs
- Stream channel modifications, including channelization or widening
- Streambank modifications, including hard armoring
- Impoundments
- **Water withdrawals**



ARAP Permit Types

General Permits

- Used to authorize alterations for specific categories of activities that are substantially similar in nature.
- Project-specific conditions cannot be added to GP's.
- Covered activities do not (and cannot) represent significant resource loss that would require compensatory mitigation, **individually or cumulatively**.

Individual Permits

- Used to authorize alterations of a larger scale or complexity, in a special category of water, or for which a general permit does not exist.
- Project-specific conditions can be added to IP's.
- Authorized activities often represent significant resource loss that requires **compensatory mitigation**.
- Review of applications for individual permits must involve :
 - Cumulative impact analysis
 - Alternatives analysis – avoidance & minimization

Impetus for Changes / Updates

Current ARAP / Mitigation Process primarily governed by :

- ARAP Rules (in place since 2000)
- TDEC's Antidegradation Rule (circa 2004)
- TN Stream Mitigation Guidelines (2004)

DWR has known and been tracking needed changes to ARAP Rules and Stream Mitigation Guidelines for some time – out of date in process, and in meeting 2008 Federal Mitigation Rule.

Since 2013 have also been working with the EPA, Corps, IRT, and other stakeholders to produce the *TN Stream Quantification Tool* (TN SQT), now used by the IRT as part of review of third-party compensatory mitigation projects, and to inform the recent revision to TDEC's Stream Mitigation Guidelines.

Changes in ARAP process

ARAP and Anti-Deg Rules proposed, public noticed, adopted by Water Quality Control Board in October 2018.

- **Jurisdiction** : ARAPs no longer apply to ephemeral streams or groundwater, only I/P streams & wetlands.
- **Public Notice** : Draft permits will now be put on public notice, not applications / proposals.
- **Permit renewals** : Now require permits be renewed if *all* activities (incl. mitigation and monitoring) not completed during the 5-year permit term.

These, and other “status quo renewals” (incl. maintenance dredging, water withdrawals, etc) will not require additional public notice, alternative analyses, or socio-economic justification.

Changes in ARAP process

- **Avoidance and Minimization**: The current rules state only that an applicant *consider* avoidance and minimization of impacts to water resources, and to *submit* an alternatives analysis. New language would *require* implementation of practicable alternatives that have the least impact on the resources.



Changes in ARAP process

- **Socio-Economic Justification** : Still required for significant degradation to state waters, except where off-setting mitigation is provided in the same **HUC-8** watershed (previously ill-defined “in-system”), or if impacts are occurring in **habitat-impaired waters** (e.g. 303-d listed).



Changes to Mitigation

When is Mitigation required ?

- When there is an **“Appreciable permanent loss of resource values”**
- **Resource values** = *“the physical, chemical, and biological properties of the water resource that help maintain classified uses”*. The list includes providing habitat for fish & aquatic life, supporting recreation and providing safe drinking water.

Changes to Mitigation

What is considered in Mitigation requirements ?

- If an activity results in appreciable loss of resource value, the applicant must “*provide mitigation which results in no overall net loss of resource value from existing conditions.*” (Key departure from current guidance, in which mitigation requirements essentially “averaged” resource loss across all range of current stream conditions)
- Introduces the term “*existing conditions*”, to be defined as the actual existing condition of the resource at the time **the project** is proposed as measured by a **quantitative assessment tool** or other scientific method as approved by the Division.

Changes to Mitigation

What is considered in Mitigation requirements ?

- Mitigation Resource Offset “Floor” : ***“Because all streams and wetlands serve important functions, the determination of existing conditions shall ensure at least minimal protection for all streams and wetlands not withstanding prior degradation”***

This language is reflected in the Debit calculation methodology within the new *TN Stream Mitigation Guidelines* that sets a **minimal existing condition score** for debit (loss) evaluations. This will result in a minimum of 1:1 linear footage of mitigation, even in heavily impacted urban areas, and account for losses of other designated uses and resource values outside of those functions evaluated by the TN Debit Tool.

Changes to Mitigation

What is considered in Mitigation requirements ?

- Temporal : Should complete mitigation **prior to or concurrent with impacts**, and the Division may “*account for temporal loss of resource value*” (e.g. lagging ILFs, potentially matching USACE factor)
- Proximal : “*Mitigation should occur as close to the impact location as practical*”, “*Where appropriate, the Division may apply a multiplier based on [proximity]*”. (This is currently proposed to be applied only when outside the approved service area of a bank, or for distant permittee-responsible mitigation).

Changes to Mitigation

What is considered in Mitigation requirements ?

- Protection : *“All mitigation shall include a permanent restriction on the use of the mitigation site in a form approved by the Division”* (e.g. deed of land use restriction, conservation easement, etc.)



Changes to Mitigation

Where must Mitigation occur ?

- For Habitat Impaired Waters : Changed from “in-system” (HUC-12) to anywhere in state. No Anti-Deg Socioeconomic justification requirement.
- For Supporting or Exceptional TN Waters : Anywhere, but now if within HUC-8 = no formal socio-economic determination required, or additional public notice within ETWs.
- *“Mitigation for impacts to Tennessee streams and wetlands shall occur in Tennessee.”* (A response to recent proposals to utilize banks/ILFs in KY and GA)

Changes to Mitigation

How will Mitigation success be evaluated ?

- *“Mitigation for impacts to streams must be developed in a **scientifically defensible manner approved by the Division** that demonstrates a sufficient increase in resource values to compensate for permitted impacts.”*
- *“The Division will evaluate resource value compensation through the **use of an appropriate quantitative assessment** or other defensible scientific method.”*
- Must include an approved mitigation plan, time schedule for completion, monitoring and reporting to document timely achievement of success and remedial actions to correct deficiencies.

Changes to Mitigation

How will Mitigation success be evaluated ?

- Stream Relocation (fill and replacement) projects: *“At a minimum, all new and relocated streams must include a vegetated riparian zone, demonstrate lateral and vertical channel stability, and have a natural channel bottom. All mitigation watercourses must maintain or improve flow and classified uses after mitigation is complete.”*

No matter how degraded a roadside stream is currently, any relocated channel has to meet certain minimal standards, including maintaining hydrology. Restoration mitigation projects must also maintain a jurisdictional flow regime and cannot lower biological integrity post-project.

Where are we ?

- The *Tennessee Stream Quantification Tool* has been “stakeholdered” multiple times, put onto public notice, revised and updated with input from the USACE, EPA, TN IRT members, mitigation practitioners, and consultants. This has been jointly published and newly proposed third-party mitigation projects have been transitioned to the new methodology and “currency”.
- The revised *Tennessee Stream Mitigation Guidelines*, informed by the new approved rules, and including the functional-foot based TN Debit Tool, has been put onto public notice, revised and updated based on comments, and is now in effect and published on-line.

Next Steps

- Revisions to the ARAP Rules and Water Quality Standards (including the Anti-degradation Rules) were put on hold for 90 days as part of Governor Lee's stay on all new rules and regulations.
- They have now been filed with the Secretary of State, which started another 90-day wait. The SOS will post the new rules on their website when they go into effect.
- Final issuance through this process is anticipated to be sometime in mid August.



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