WATER QUALITY STANDARDS (WQS) VARIANCES

VIRTUAL WQS ACADEMY

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OFFICE OF WATER

U.S. EPA

DISCLAIMERS

- **This presentation does not:**
  - Impose any binding requirements.
  - Determine the obligations of the regulated community.
  - Change or substitute for any statutory provision or regulatory requirement.
  - Change or substitute for any Agency policy or guidance.
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OBJECTIVES

1. Learn the basics of a Water Quality Standards (WQS) variance
2. Understand how using a WQS variance can help to get real improvements in water quality
3. Decide if a WQS variance is right tool for your situation
4. Learn how to adopt a WQS variance and submit it to EPA
5. Understand how WQS variances relate to other Clean Water Act (CWA) programs

WHAT IS A WQS VARIANCE?

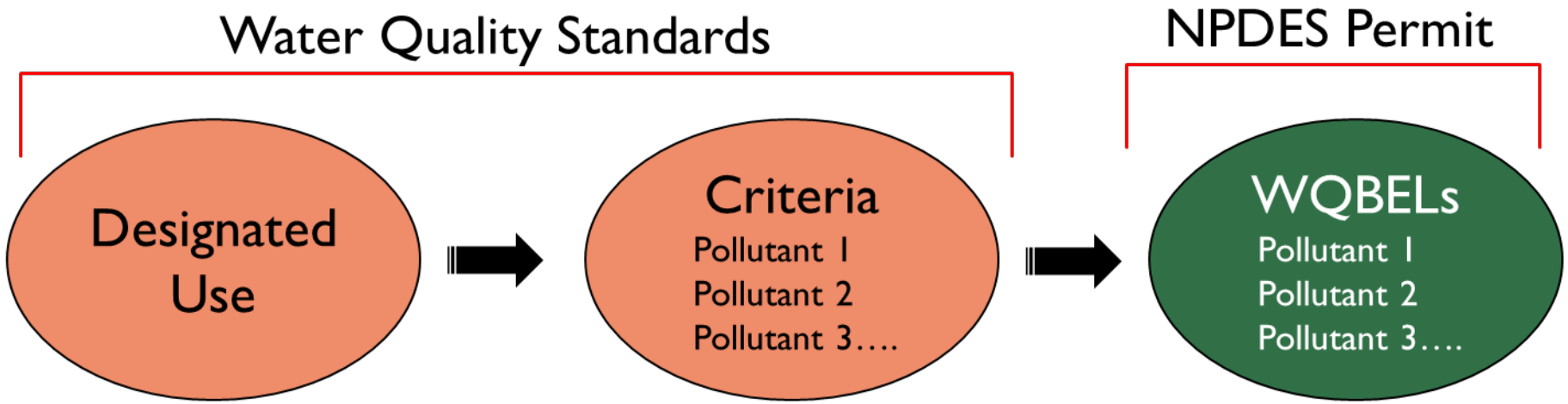
STATUTORY BASIS FOR WQS VARIANCES

- Sec. 101 of the Clean Water Act
  - (a) The objective of this Act is to **restore** and maintain the chemical, physical, and biological integrity of the Nation's waters.
    - (1) …
      - (2) it is the national goal that **wherever attainable**, an interim goal of water quality which provides for…
- Big Picture
  - This goal may not always be attainable.
  - WQS variances are a mechanism to continue striving towards the CWA goal.

A WQS VARIANCE IS:

- A time-limited designated use and criterion:
  - for a specific pollutant or water quality parameter,
  - from a specific source or for a specific waterbody,
  - that reflects the highest attainable condition for a specific time period.
- A regulatory mechanism that **ensures incremental water quality improvements** when/where the designated use and criterion are not currently attainable and there is uncertainty as to what designated use and criterion may be ultimately attainable.

LINK BETWEEN WQS VARIANCES AND NPDES PERMITS

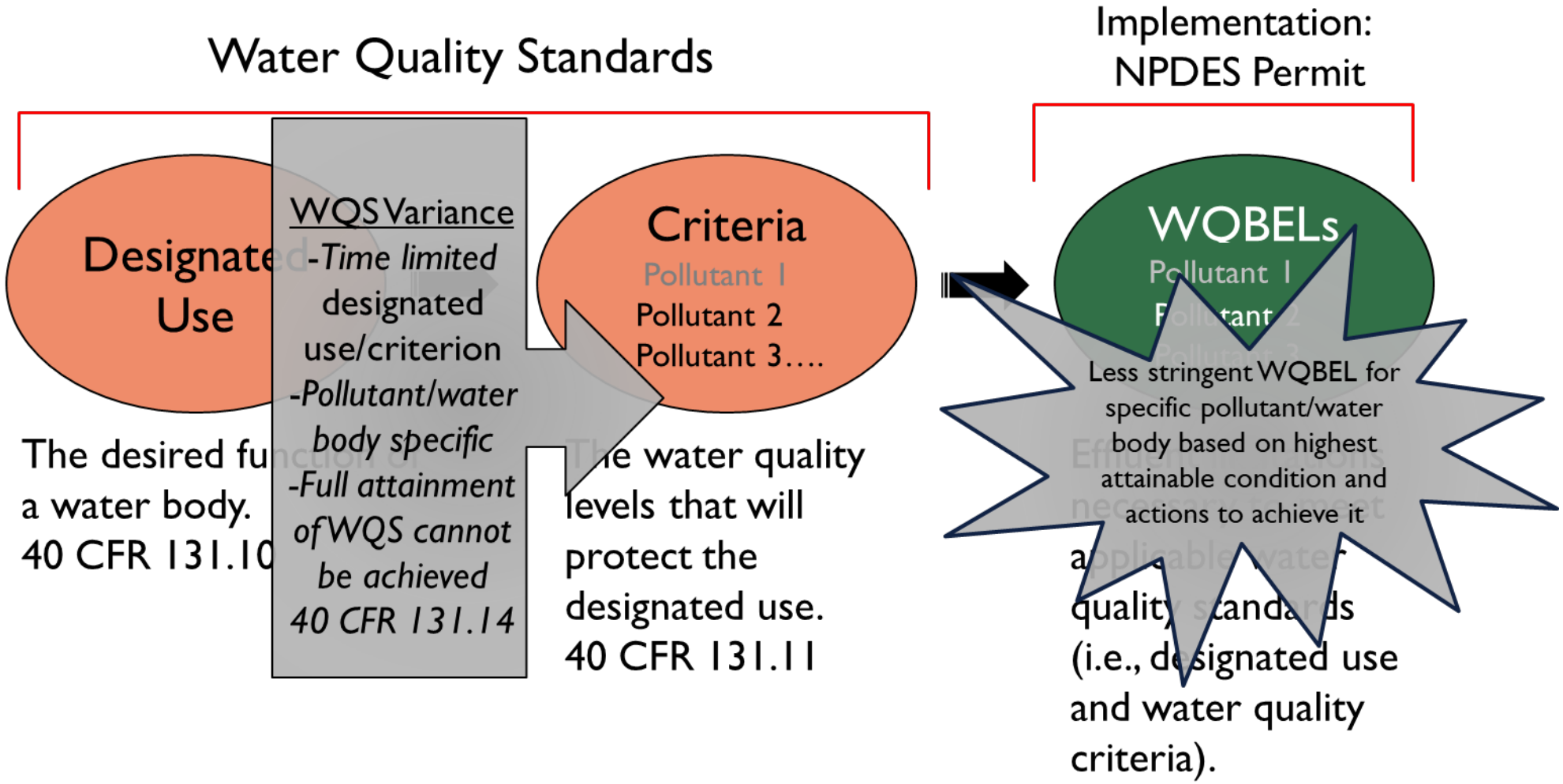


The desired function of a water body.
40 CFR 131.10

The water quality levels that will protect the designated use.
40 CFR 131.11

Effluent limitations necessary to meet applicable water quality standards (i.e., designated use and water quality criteria).

LINK BETWEEN WQS VARIANCES AND NPDES PERMITS



SITE SPECIFIC CRITERIA

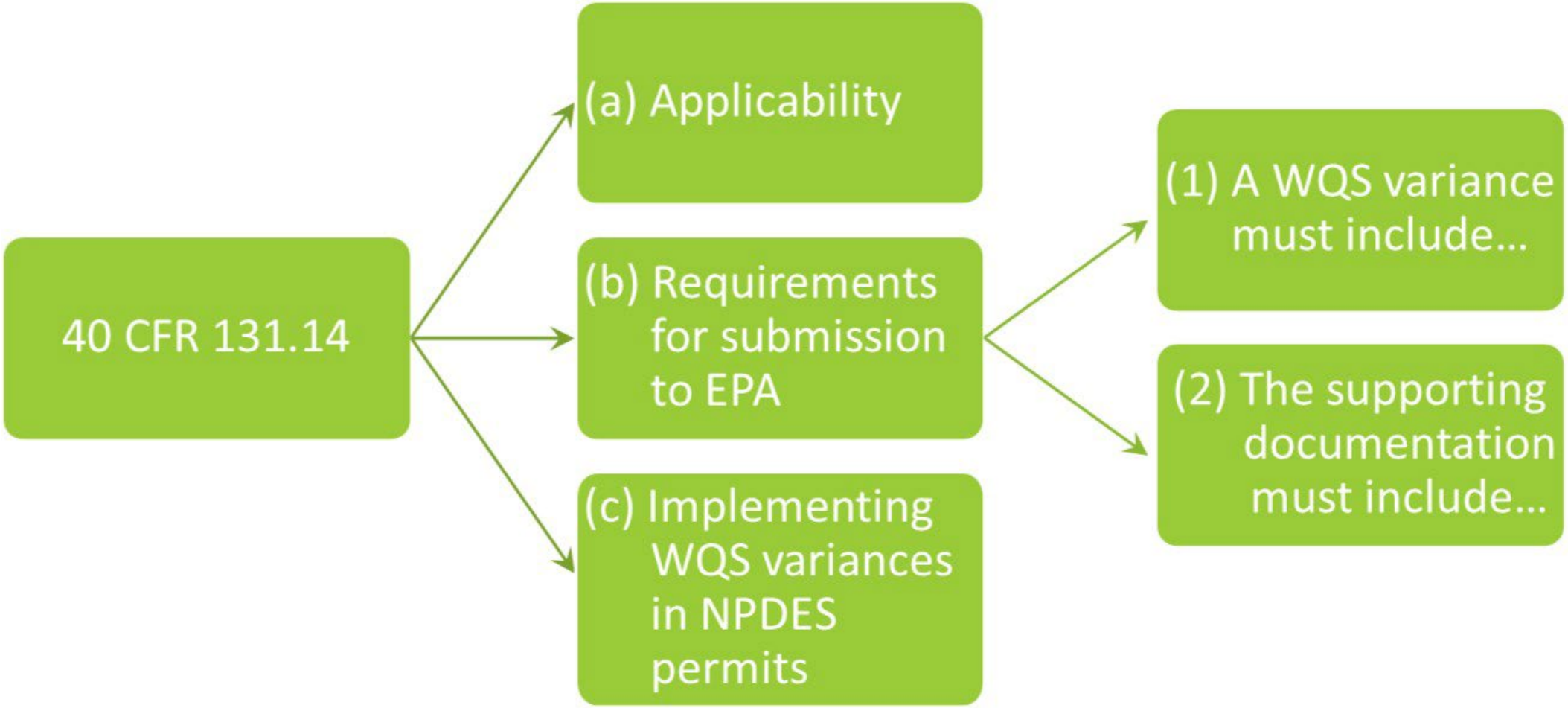
Site Specific Criteria	WQS Variance
Where the same designated use will be protected but with different (e.g., more or less stringent) water quality criteria.	Where the designated use and criterion cannot be attained for a period of time and the state adopts a less stringent designated use and criterion to be put in place for a specified period of time.

HOW CAN WQS VARIANCES LEAD TO REAL IMPROVEMENTS IN WATER QUALITY?

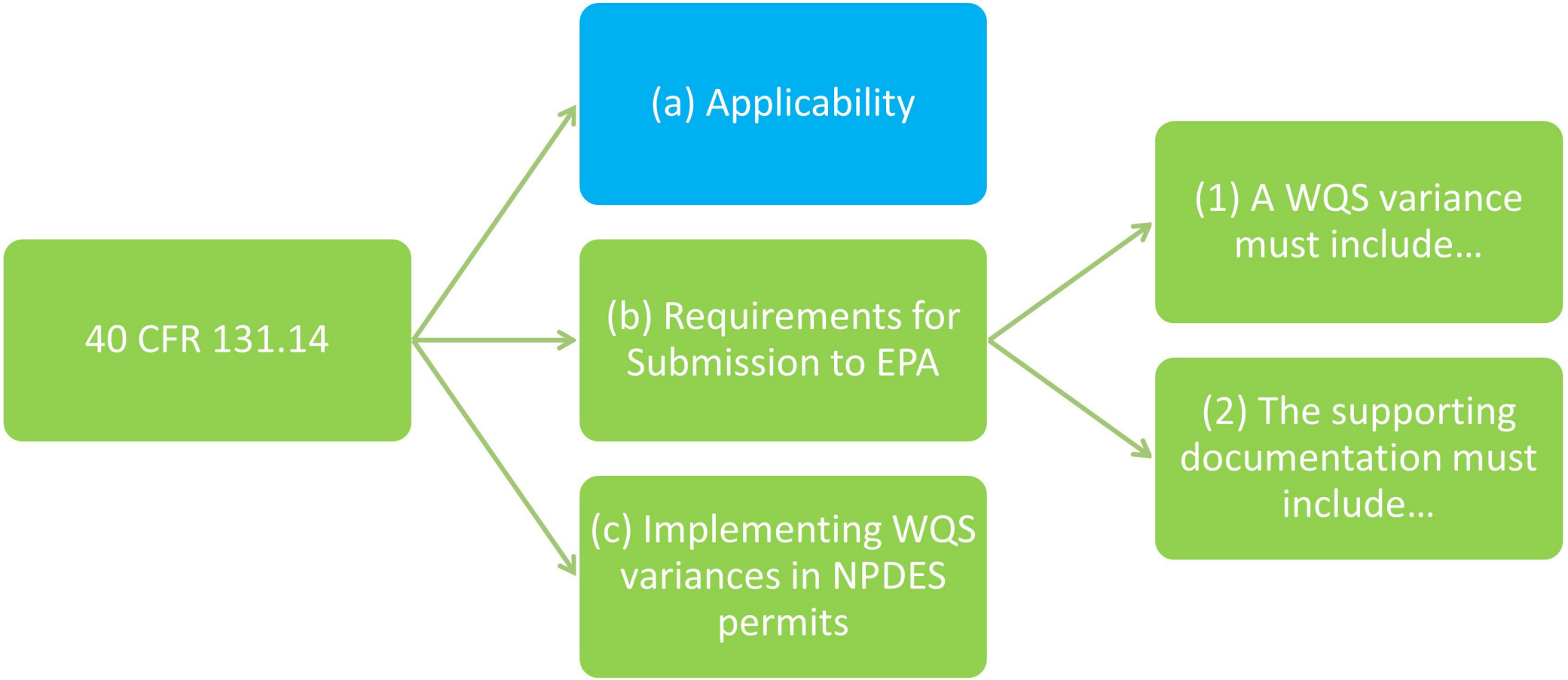
INTENT OF 40 CFR 131.14

- Authorizes states and authorized Tribes to use WQS variances. Therefore, they are not required to adopt their own authorizing provisions or procedures.
- However, states and authorized Tribes may find it useful to adopt procedures to streamline their WQS variance decision-making process.
- Reduces uncertainty and facilitates appropriate, consistent, and effective implementation over a defined period of time.
- Ensures transparency and accountability to both the regulated community and the public.
- Provides specific regulatory basis and required documentation to justify the need for the variance, the interim requirements, and the length of the variance.

BASIC STRUCTURE



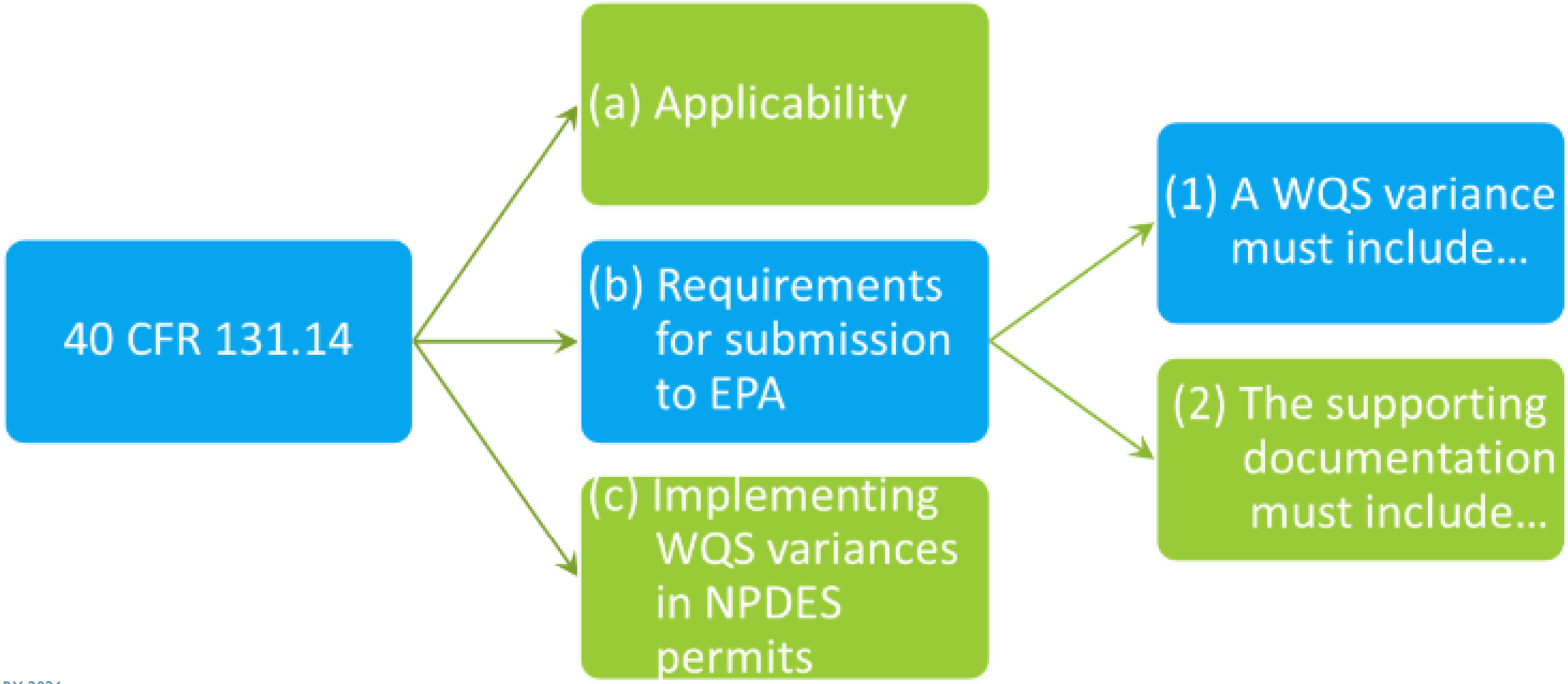
APPLICABILITY



APPLICABILITY

- A WQS variance only applies to the permittee(s) or waterbody/waterbody segment(s) specified in the WQS variance (§131.14 (a)(1))
- State or authorized Tribe must retain, in its WQS, the underlying designated use and criterion addressed by the WQS variance, and all other applicable state or Tribal WQS must remain applicable (§131.14 (a)(2))
- An approved WQS variance is the applicable WQS for developing NPDES permit limits and requirements and for CWA Section 401 certifications (§131.14 (a)(3))
- A WQS variance is not appropriate if the designated use and criterion addressed by the WQS variance can be met by implementing technology-based effluent limits (§131.14 (a)(4))

REQUIREMENTS



SCOPE §131.14 (b)(1)(i)

- Define the **scope of the variance**:
  - Pollutant specific
  - Discharger specific
    - Individual discharger
    - Multiple dischargers*
  - Waterbody/waterbody segment specific

*A multiple-discharger variance (MDV):

- Can reduce the potential administrative burden associated with adopting many, otherwise similarly justifiable, individual discharger-specific WQS variances
- Is subject to the requirements at §131.14

HIGHEST ATTAINABLE CONDITION (HAC)
§131.14 (b)(1)(ii)

1. Highest attainable interim criterion; or
2. Interim effluent condition reflecting greatest pollutant reduction achievable; or
3. *If no additional feasible pollutant controls*, the interim criterion or interim effluent condition reflecting greatest pollutant reduction with optimization of installed treatment **AND** adoption and implementation of a pollutant minimization program (PMP).

- *Pollutant Minimization Program (§131.3(p))* – "in the context of 131.14, is a structured set of activities to improve processes and pollutant controls that will prevent and reduce pollutant loadings."

HIGHEST ATTAINABLE CONDITION (HAC)

- HAU is defined as a "modified…use that is both closest to the uses specified in section 101(a)(2) of the Act and attainable, based on the evaluation of the factors in131.10(g) that precludes attainment of the use and any other information or analyses used to evaluate attainability."

- HAC is a similar requirement- a quantifiable expression of the best condition that can be achieved during the term of the variance, where the current designated use and criterion are not feasible to attain. Cannot lower currently attained water quality.

TERM (§131.14 (b)(1)(iv)) AND PUBLIC INPUT (§131.14)

- Term of the WQS variance is either a specified time after EPA approval of the WQS variance (e.g., 5 years after EPA approval), or a specific date.

- As with any WQS, conduct a public hearing consistent with §131.20.

REEVALUATIONS §131.14 (b)(1)(v)

States and authorized Tribes must periodically reevaluate the HAC for any WQS variance longer than 5 years.

- Allows for long term WQS variances, where justified, by still providing assurance that the WQS variance terms will be evaluated in a transparent way at predictable periods.
- WQS variance must specify a frequency to reevaluate, of the State or authorized Tribe's choosing, but at least every 5 years.
  - The reevaluations must be submitted to EPA within 30 days of completion.

* *Great Lakes Waters (40 CFR Part 132) Federal Max term = 5 years*

REEVALUATIONS

The WQS variance includes provisions:

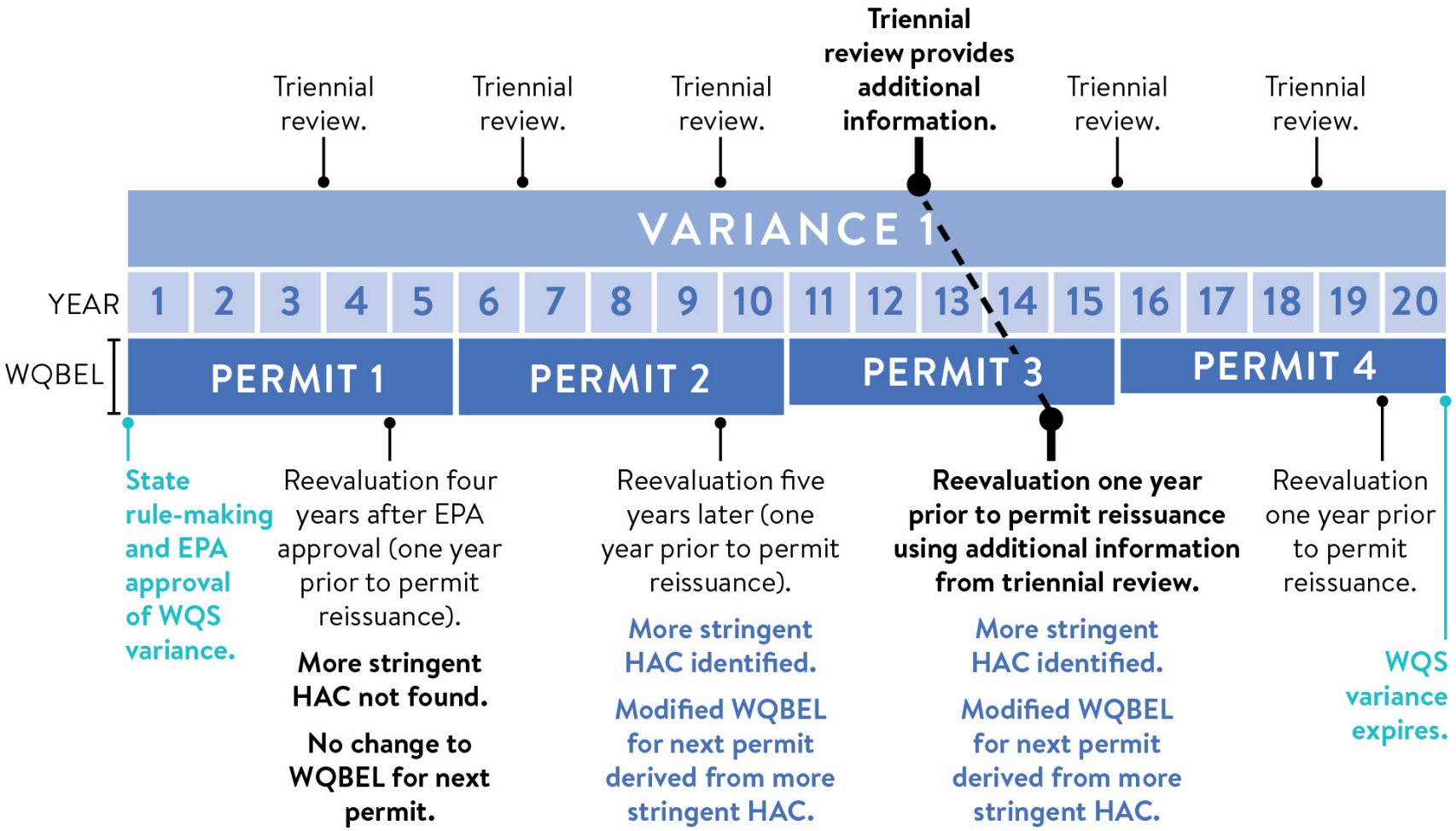
- "providing that the requirements of the WQS variance are either the highest attainable condition identified at the time of the adoption of the WQS variance, or the highest attainable condition identified during any reevaluation consistent with (b)(1)(v) of this section, whichever is more stringent." (§131.14(b)(1)(iii))

- "specifying how the State intends to obtain public input on the reevaluation." (§131.14(b)(1)(v))

  Note: The public input at the reevaluation does not need to be a public hearing

- "that the WQS variance will no longer be the applicable WQS for purposes of the Act, if the reevaluation is not conducted consistent with the frequency specified in the WQS variance or the results are not submitted to EPA [within 30 days of completion of the reevaluation]." (§131.14(b)(1)(vi))

EXAMPLE: REEVALUATION AT PERMIT REISSUANCE



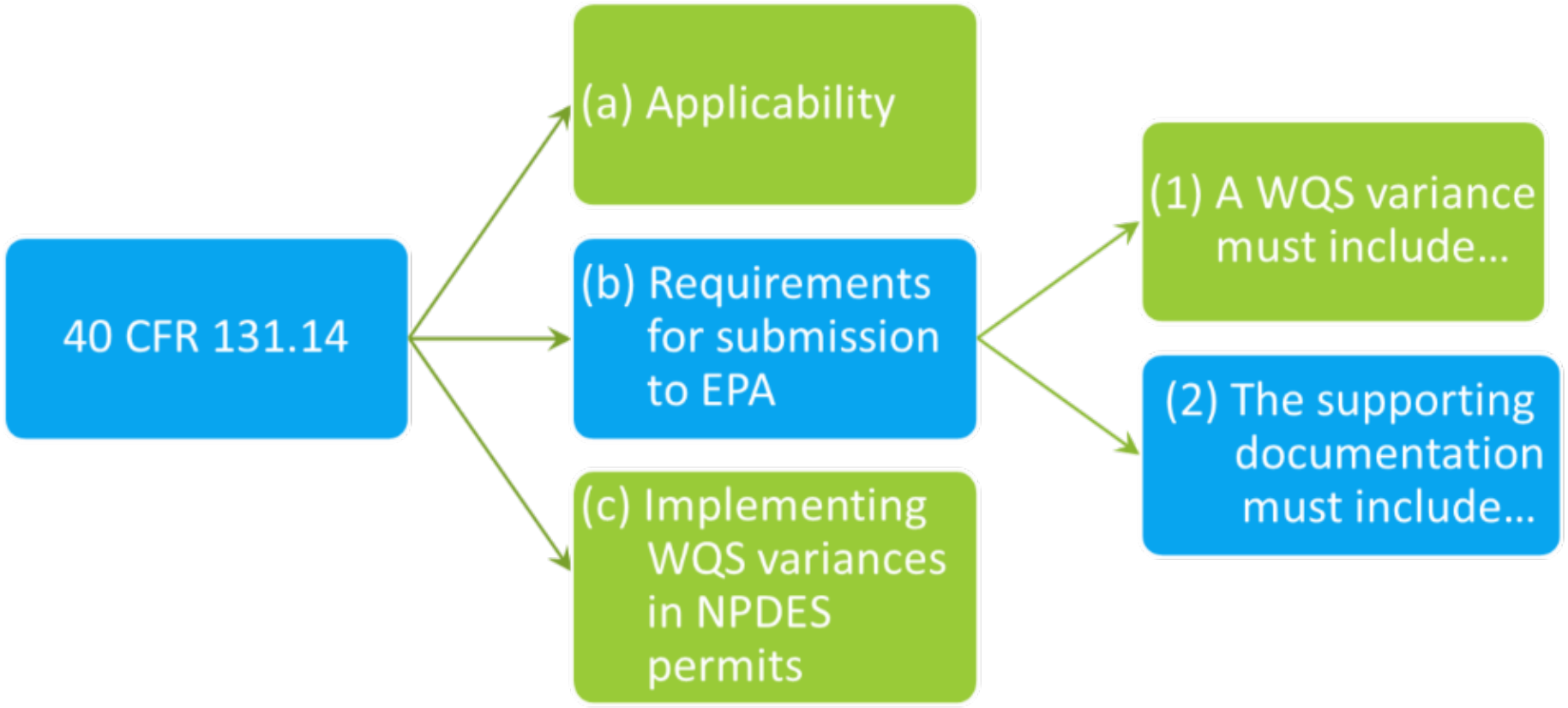
WQBEL - *Water Quality Based Effluent Limit*

HAC - *Highest Attainable Condition*

SUMMARY

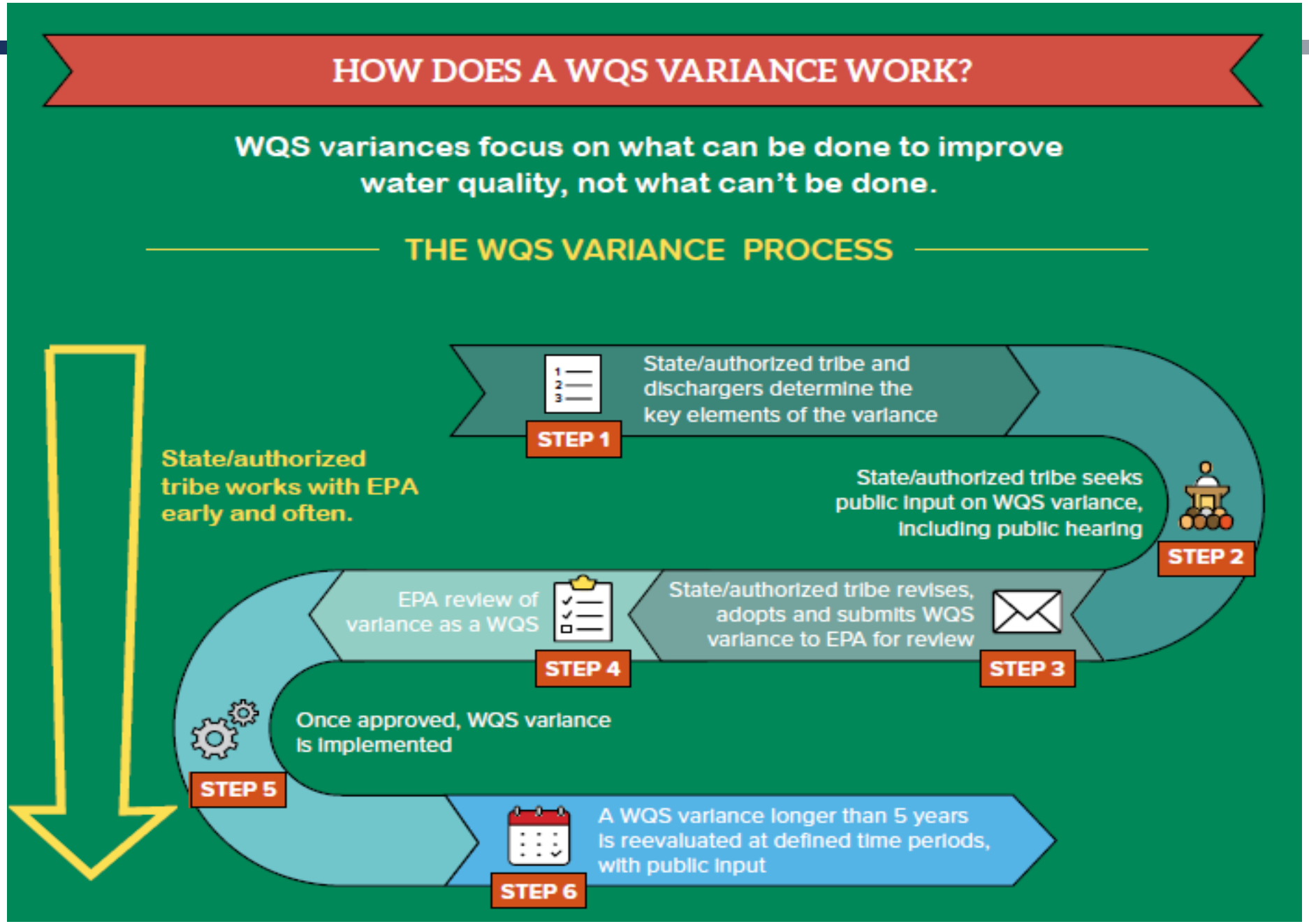
1) Scope – Identification of the pollutant(s) or water quality parameter(s) and waterbody or waterbody segment.
2) Interim Requirements – Alternative requirements that apply throughout the term of the variance (i.e., Highest Attainable Condition (HAC)), which must be quantifiable but can be expressed as an interim ambient criterion or as an effluent condition.
3) Term – term of the variance that is only as long as necessary to achieve the HAC.
4) Reevaluation:
   - Reevaluation schedule, and process for public input, where WQS variance term > 5 years.
   - Reevaluation provisions.

SUPPORTING DOCUMENTATION



SUPPORTING DOCUMENTATION

1. The need for the WQS variance
   - §131.14(b)(2)(i):"Documentation demonstrating the need for a WQS variance."
2. The term of the WQS variance is only as long as necessary to achieve the highest attainable condition
   - §131.14(b)(2)(ii):"Documentation demonstrating that the term of the WQS variance is only as long as necessary to achieve the highest attainable condition."
3. The interim WQS represents the highest attainable condition
   - §131.14(b)(1)(ii):"The requirements shall represent the highest attainable condition of the water body or waterbody segment applicable throughout the term of the WQS variance based on the documentation required in (b)(2) of this section.
4. For water body or waterbody segment WQS variances, identification and documentation of any cost-effective and reasonable best management practices (BMPs) for nonpoint source controls
   - §131.14(b)(2)(iii): "Identification and documentation of any cost-effective and reasonable best management practices for nonpoint source controls related to the pollutant(s) or water quality parameter(s) and water body or waterbody segment(s) specified in the WQS variance that could be implement to make progress towards attaining the underlying designated use and criterion. A State must provide public notice and comment for any such documentation."


HOW DOES A WQS VARIANCE WORK?
WQS variances focus on what can be done to improve water quality, not what can't be done.
THE WQS VARIANCE PROCESS
State/authorized tribe works with EPA early and often.
STEP 1
State/authorized tribe and dischargers determine the key elements of the variance
STEP 2
State/authorized tribe seeks public input on WQS variance, including public hearing
STEP 3
State/authorized tribe revises, adopts and submits WQS variance to EPA for review
STEP 4
EPA review of variance as a WQS
STEP 5
Once approved, WQS variance is implemented
STEP 6
A WQS variance longer than 5 years is reevaluated at defined time periods, with public input

SUBSEQUENT WQS VARIANCES

- Where a state or authorized Tribe needs another WQS variance and can continue making water quality progress after the initial WQS variance expires.
- Must still meet §131.14, but should be informed by the activities conducted and information gathered during the previous WQS variance.
- Includes documentation on whether and to what extent best management practices (BMPs) for nonpoint sources were implemented and the water quality progress achieved. (§131.14(b)(2)(iii)).

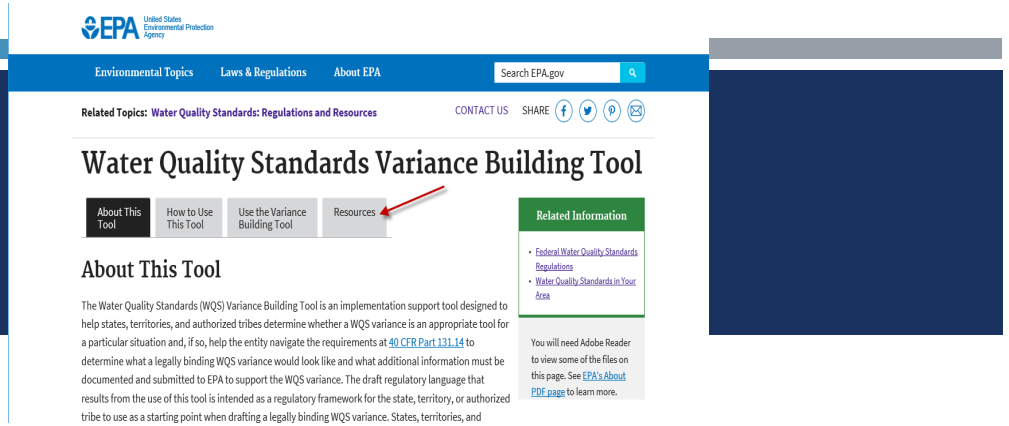
EPA'S WQS VARIANCE BUILDING TOOL *DEMONSTRATION*

The WQS Variance Building Tool is an implementation support tool designed to help states, territories, and authorized Tribes:

1) determine if a WQS variance is the appropriate tool for their situation, and

2) adopt WQS variances that are consistent with the regulatory requirements at §131.14.

HELPFUL RESOURCES



- "WQS Variances" website:

https://www.epa.gov/wqs-tech/water-quality-standards-variances

Provides information on WQS variances including a presentation and infographics.

- WQS Variance Building Tool

https://www.epa.gov/wqs-tech/water-quality-standards-variance-building-tool

- Dedicated chapter in the WQS Handbook (draft)
- "Ammonia WQS Variance Tools for Small Communities with Lagoon Wastewater Treatment Systems" webpage

https://www.epa.gov/wqs-tech/ammonia-wqs-variance-tools-small-communities-lagoon-wastewater-treatment-systems

QUESTIONS/DISCUSSION

THANK YOU!

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