United States Environmental Protection Agency

Office of Water
EPA **820-F-17-017**
July 2017

Water Quality Standards Variance Building Tool – Flow Chart (Print Version)

What is the purpose of this tool?

The purpose of a WQS variance is to facilitate progress toward attaining designated uses. This 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 40 CFR Part 131.14.

States, territories, and authorized tribes are not required to use this tool when adopting WQS variances. However, using this tool may help states, territories, and authorized tribes initiate the process of developing a WQS variance that can serve as the starting point for stakeholder and EPA engagement.

How does this tool work?

This flow chart serves as the structural layout for EPA's online version of the WQS Variance Building Tool. The online version follows the flow chart and asks a series of questions to identify the information that must be included in a WQS variance submission. As the user progresses, the tool records all of the answers provided and uses them to populate draft regulatory language. The tool does this by assigning each input parameter with a specific code (see the chart below for more information). States, territories, and authorized tribes may tailor the draft regulatory language to include additional information that more accurately captures the case-specific facts of the individual WQS variance or fits a desired format as long as all federal requirements are met. The final regulatory language can then be adopted and submitted, along with all necessary supporting documentation, to EPA for CWA Section 303(c) review.

Codes for Specific Parameters	Description
"Q#"	Defines a question (with "#" representing a number from 1-38) that requires the user to input a value or select an option. The response to these questions is recorded by the tool and used to populate the regulatory language.
"R#"	Defines a result or conclusion (with "#" representing a number from 1-5) that provides suggested next steps or actions.
"C#"	Defines additional content (with "#" representing a number from 1-9) that does not require input by the user but is provided for context or supplemental information.

Contact Information:

If you have any questions about this tool, please contact Gary Russo at (202)-566-1335 or at Russo.Gary@epa.gov.

START

DISCLAIMER: This tool does not impose legally binding requirements on the United States Environmental Protection Agency (EPA), states, territories, authorized tribes, or the regulated community, nor does it confer legal rights or impose legal obligations upon any member of the public. The Clean Water Act (CWA) provisions and EPA regulations described in the tool contain legally binding requirements. This tool does not constitute a regulation, nor does it change or substitute for any CWA provision or EPA regulations. This tool is a living document and may be revised periodically without public notice.

This tool populates draft regulatory language that is intended for states, territories, and authorized tribes to use as a starting point to customize their own legally binding water quality standards (WQS) variance. It also provides a list of the additional information that must be documented and submitted to EPA to support the WQS variance. The supporting documentation required may change depending on the type of WQS variance identified. The use of this tool and resulting draft regulatory language does not guarantee EPA approval. EPA encourages early and frequent coordination between a state, territory, or authorized tribe and EPA to provide the best chance that the submission meets the requirements of the CWA and regulation.

Go to C1.

C1) As you progress through the questions, this tool will record each of your responses. To view your responses to any previous question, click the "Show/Hide Responses" button. Using the "Show/Hide Responses" button, you may also copy your responses into another document. You may return to previous questions by clicking "Go Back" or by clicking on the link to a particular question in the "Progress" list. If you wish to clear all your responses and start fresh, you may click "Start Over." If you close your browser, this tool will save your progress so you can continue your work at a later time. Please note that responses are stored within your computer's internet browser and are not transmitted to EPA or anywhere else.

Go to Q1.

Q1) Which of the following has regulatory jurisdiction over the waterbody or waterbody segment that will be subject to the desired water quality standards (WQS) variance, a(n): state, authorized tribe[1], or U.S. territory?

NOTE: The remainder of this tool uses "state" to refer to a state, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

1. An authorized tribe is any federally recognized Indian tribe approved by EPA to receive Treatment in a Similar Manner as a State (TAS) to administer a Clean Water Act WQS program.

Select one:

"State", "Authorized Tribe", or "U.S. Territory"

Go to Q2.

Q2) What is the currently applicable designated use for the waterbody or waterbody segment that will be subject to the desired WQS variance?

Please be as specific as possible when identifying the applicable designated use.
Example: cold water aquatic life use.

It is important to consider the designated uses and criteria of downstream waterbodies or waterbody segments (see 40 CFR Part 131.10(b)) when deciding whether to adopt a WQS variance. EPA recommends coordinating with your EPA regional office to ensure the WQS variance does not conflict with this additional requirement. (See EPA's website for relevant contact information.)

Go to Q3.

Q3) The regulations at 40 CFR Part 131.14(b)(1)(i) require WQS variances to identify the pollutant or water quality parameter to which the desired WQS variance will apply. WQS variances are generally applicable to one pollutant or water quality parameter, however EPA acknowledges that some pollutants (e.g., nitrogen and phosphorus) may be appropriate to cover under the same WQS variance.

What is/are the pollutant(s) or water quality parameter(s) to which the desired WQS variance will apply?

Please be as specific as possible when identifying the pollutant(s) or parameter(s).
Example: dissolved copper

Go to Q4.

Q4) 40 CFR Part 131.11 requires that states adopt criteria that protect the designated use and that such criteria must be based on sound scientific rationale.

What is the currently applicable criterion that protects the currently applicable designated use for the pollutant(s) or water quality parameter(s) to which the desired WQS variance will apply?

Please be as specific as possible when identifying the applicable criterion. You may enter a numeric expression (e.g., a concentration or equation) or a citation to the section of the legally binding state or authorized tribal regulations where the criterion is written.
Examples include but are not limited to: 1) a chronic freshwater aquatic life criterion of 18.0 µg/L; 2) pH and temperature dependent: given a pH of 7 and water temperature of 20 °C, a chronic freshwater aquatic life criterion of 1.9 µg/L; OR 3) written in Table A at Surface Water Quality Standards §10-100.123.

Go to Q5.

Q5) Technology-based effluent limits (TBELs) represent the minimum level of control that must be imposed in a permit issued under Section 402 of the CWA. TBELs are required under Sections 301(b) and 306 of the CWA, and can be imposed using one of three methods described at 40 CFR Part 125.3(c). Can the currently applicable designated use and associated criterion addressed by the desired WQS variance be achieved by implementing TBELs? (See 40 CFR Part 131.14(a)(4)).

NOTE: If the pollutant to which the desired WQS variance will apply does not require a TBEL, click "TBEL not required for this pollutant."

Select one:

"Yes", "No", or "TBEL not required for this pollutant"

If "Yes", go to R1 (page 20).
If "No", go to Q6.
If "TBEL not required for this pollutant", go to Q6.

Q6) Is/Are the permittee(s) able to meet the water quality-based effluent limit (WQBEL) derived from the designated use and associated criterion at the time of the National Pollutant Discharge Elimination System (NPDES) permit issuance?

Select one:

"Yes" or "No"

If "Yes", go to R2 (page 20).
If "No", go to Q7.

Q7) Can the discharger/permitting authority identify a series of enforceable actions that will lead to compliance with the WQBEL?

Select one:

"Yes" or "No"

If "Yes", go to R3 (page 20).
If "No", go to Q8.

Q8) WQS variances may be appropriate to address situations where it is known that the designated use and criterion are unattainable today (or for a limited period of time) but feasible progress could be made toward attaining the designated use and criterion in the future. Taking into account potential uncertainty, is it possible that feasible progress could be made toward attaining the designated use and criterion in the future?

Select one:

"Yes" or "No"

If "Yes", go to C2.
If "No", go to R4 (page 20).

C2) The state or authorized tribe should consider adopting a WQS variance to provide time to make incremental progress toward improving water quality. As the state or authorized tribe begins its process of drafting a WQS variance, use the following questions and guidelines to ensure the WQS variance is consistent with the requirements at 40 CFR Part 131.14.

Go to Q9.

Q9) Will the WQS variance apply to specific discharger(s) or will it apply to a waterbody or waterbody segment?

Select one:

"Specific Discharger(s)" or "Waterbody or Waterbody Segment"

If "Specific Discharger(s)", go to Q10.
If "Waterbody or Waterbody Segment", go to Q28 (page 14).

Q10) Does the state or authorized tribe have more than one discharger unable to meet their WQBEL derived from the designated use and associated criterion for the pollutant(s) you identified?

Select one:

"Yes" or "No"

If "Yes", go to Q12.
If "No", go to Q11.

Q11) Identify the discharger that will be subject to the WQS variance. Be sure to include the name and associated NPDES permit number, if available, for the discharger, and the identity of the receiving water.

Example: Company Name ([enter associated NPDES permit number]) discharging to Waterbody Name

(See 40 CFR Part 131.14(b)(1)(i))

Go to Q18 (page 8).

Q12) States and authorized tribes have the discretion to adopt individual WQS variances for each discharger or they may streamline their WQS variance process by adopting WQS variances applicable to multiple dischargers, regardless of whether or not they are located on the same waterbody. Multiple discharger WQS variances may not be appropriate or practical for all situations and can be highly dependent on the applicable pollutants, parameters, and/or permittees.

Does the state or authorized tribe want to explore multiple discharger WQS variances?

Select one:

"Yes" or "No"

If "Yes", go to Q13.
If "No", go to C3.

C3) EPA recommends that states and authorized tribes use this tool to develop each WQS variance specific to the individual dischargers. You may click "Continue" to begin drafting the WQS variance for one of the dischargers.

Go back to Q11.

Q13) States and authorized tribes considering a multiple discharger WQS variance must first determine if all of the dischargers are experiencing the same challenges (i.e., the same facts cause the same factor to preclude attainment) in meeting their WQBELs for the same pollutant. For example, dischargers that would incur substantial and widespread economic and social impact as a result of implementing controls for dissolved copper more stringent than those required by sections 301(b) and 306 of the CWA may be eligible for coverage under the same WQS variance. (See EPA's Frequently Asked Questions for help determining when/how to group dischargers together.)

NOTE: *EPA recommends that the state or authorized tribe coordinate with its EPA regional office when considering a multiple discharger WQS variance. (See EPA's website for relevant contact information.)*

Are all of the dischargers experiencing the same challenges in meeting their WQBELs for the pollutant(s) you identified?

Select one:

"Yes" or "No"

If "Yes", go to Q14.

If "No", go to C4.

C4) If the state or authorized tribe can identify a subset of the dischargers experiencing the same challenges in meeting their WQBELs for the same pollutant, click "Use a Multiple Discharger Variance" to begin drafting the multiple discharger WQS variance for that subset of dischargers. If the state or authorized tribe can identify multiple subsets, EPA recommends using this tool to develop separate multiple discharger WQS variances for each subset.

For those dischargers that do not fall into a subset, click "Use an Individual Discharger Variance".

Select one:

"Use a Multiple Discharger Variance" or "Use an Individual Discharger Variance"

If "Use a Multiple Discharger Variance", go to Q14.

If "Use an Individual Discharger Variance", go back to C3.

Q14) The regulations at 40 CFR Part 131.14(b)(1)(i) require the state or authorized tribe to identify all dischargers subject to a WQS variance. The state or authorized tribe can identify each discharger individually, or can adopt specific requirements[1] to identify the eligible dischargers the state or authorized tribe cannot identify in advance.

Can the state or authorized tribe identify in advance all dischargers that will be subject to the desired WQS variance?

1. Examples: facilities of a certain size, a certain daily volume of outflows, permittees discharging to lakes of a certain size, etc.

Select one:

"Yes" or "No"

If "Yes", go to Q15.

If "No", go to Q16.

Q15) The dischargers that will be subject to the WQS variance must be identified in the WQS variance. If this WQS variance will apply to a small number of dischargers, use the example provided below to enter them into the box and then click "Continue." If this WQS variance will cover a large number of dischargers, leave the box below blank and click "Continue (many dischargers)" to create a placeholder for a discharger table in the finished template.

Example: Company Name 1 ([enter associated NPDES permit number]) discharging to Waterbody Name 1, Company Name 2 ([enter associated NPDES permit number]) discharging to Waterbody Name 2, etc.

(See 40 CFR Part 131.14(b)(1)(i))

Go to Q18 (page 8).

Q16) For those dischargers the state or authorized tribe can identify at the time the WQS variance is adopted, the state or authorized tribe must identify them in the WQS variance. If this number of dischargers is small, use the example provided below to enter them into the first box. Then, once you have filled out the remaining information on this page, click "Continue." If this number of dischargers is large, leave the first box blank and fill out the remaining information on this page. Then, click "Continue (many dischargers)" to create a placeholder for a discharger table in the finished template.

Example: Company Name 1 ([enter associated NPDES permit number]) discharging to Waterbody Name 1, Company Name 2 ([enter associated NPDES permit number]) discharging to Waterbody Name 2, etc.

In circumstances where the state or authorized tribe cannot identify the applicable discharger(s) at the time the WQS variance is adopted, the state or authorized tribe may establish requirements that identify those dischargers in the future. Identify the specific requirements that each discharger must meet in order to be eligible for coverage under the desired WQS variance (below) and the potential universe of receiving waters (see Q17). It is EPA's expectation that states and authorized tribes who choose to identify dischargers in this manner will subsequently make a list of the facilities covered by the WQS variance publicly available (e.g., posted on the state or authorized tribal Web site).

Describe the specific requirements that each discharger must meet in order to be eligible for coverage under the desired WQS variance. You may include information such as facility size, daily volume of outflows, discharging to a lake of certain size, etc.

Enter the name of the publicly available document or Web page that will list all of the facilities covered by the WQS variance. If applicable, you should also consider including the location (e.g., Web address) where the document or Web page can be found.

Example: "WQS Variance Register" located at http://www.state_regs.gov

Go to Q17.

Q17) The regulation at 40 CFR Part 131.14(b)(1)(i) also requires WQS variances to include the identity of the waterbody or waterbody segment(s) that will be subject to the WQS variance. For those dischargers that the state or authorized tribe identifies using eligibility requirements, identify all of the associated waterbodies or waterbody segments potentially affected by the WQS variance.

You may include the names of each waterbody or waterbody segment, or a category of waterbodies (e.g., "all lakes of X size," "all waters designated for X use," etc.).

Example: Waterbody Name 1, Waterbody Name 2, etc.

Go to Q18.

Q18) The regulations at 40 CFR Part 131.14(b)(2)(i) require the state or authorized tribe to submit supporting documentation demonstrating the need for a WQS variance. The type of demonstration required depends on whether the designated use is a 101(a)(2) use[1] or a non-101(a)(2) use[2].

Which type of designated use is affected by this WQS variance?

1. 101(a)(2) uses are any uses specified in Section 101(a)(2) of the CWA, or subcategory of such a use. Examples include but are not limited to: cold-water aquatic life use and primary contact recreation use.

2. Non-101(a)(2) uses are any uses unrelated to the protection and propagation of fish, shellfish, and wildlife or recreation in or on the water. Examples include but are not limited to: navigational, agricultural, industrial, or public water supply uses.

Select one:

"101(a)(2)" or "Non-101(a)(2)"

If "101(a)(2)", go to Q19.

If "Non-101(a)(2)", go to Q20.

Q19) A WQS variance for a use specified in section 101(a)(2) of the Act, or sub-category of such a use, requires a demonstration that attaining the designated use is not feasible during the term of the WQS variance due to at least one of the factors specified in 40 CFR Part 131.14(b)(2)(i)(A). Select the relevant factor(s) listed below. Document how the selected factor(s) precludes attainment of the use during the term of the WQS variance and include such documentation in the supporting documentation submitted to EPA with the WQS variance.

Select the factor(s) that apply:

1) Naturally occurring pollutant concentrations prevent the attainment of the use; or

2) Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or

3) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way that would result in the attainment of the use; or

5) Physical conditions related to the natural features of the waterbody, such as a lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to the water quality, preclude attainment of aquatic life protection uses; or

6) Controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact (see EPA's spreadsheet tools to evaluate economic impacts for help); or

7) Actions necessary to facilitate lake, wetland, or stream restoration through dam removal or other significant reconfiguration activities preclude attainment of the designated use and criterion while the actions are being implemented.

Go to Q22 (page 10).

Q20) Before adopting a WQS variance for a non-101(a)(2) use, federal regulations require a demonstration that consideration of the use and value of the water for those uses listed in 40 CFR Part 131.10(a) appropriately supports the WQS variance and its term as specified in 40 CFR Part 131.14(b)(2)(i)(B). This requirement can also be satisfied by providing a demonstration showing that attaining the designated use and associated criterion is not feasible due to at least one of the regulatory factors specified in 40 CFR Part 131.14(b)(2)(i)(A).

Which type of demonstration will the state or authorized tribe provide for this WQS variance?

Select one:

"Consideration of the use and value of the water" or "Attainability of the designated use"

If "Consideration of the use and value of the water", go to C5.

If "Attainability of the designated use", go to Q21.

C5) The state or authorized tribe will need to document how the consideration of the use and value of the water for the non-101(a)(2) uses affected by this WQS variance appropriately supports the WQS variance and term (see 40 CFR Part 131.14(b)(2)(i)(B)). The state or authorized tribe must include this documentation with the WQS variance they submit to EPA for review and approval or disapproval.

Go to Q22 (page 10).

Q21) The state or authorized tribe will need to demonstrate that the designated use and associated criterion are not feasible to attain throughout the term of the WQS variance using at least one of the factors specified in 40 CFR Part 131.14(b)(2)(i)(A). Select the relevant factor(s) listed below. Describe in separate documentation how the selected factor(s) precludes attainment of the designated use and associated criterion during the term of the WQS variance. The state or authorized tribe must include this documentation with the WQS variance they submit to EPA for review and approval or disapproval.

Select the factor(s) that apply:

1) Naturally occurring pollutant concentrations prevent the attainment of the use; or

2) Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or

3) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way that would result in the attainment of the use; or

5) Physical conditions related to the natural features of the waterbody, such as a lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to the water quality, preclude attainment of aquatic life protection uses; or

6) Controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact (see EPA's spreadsheet tools to evaluate economic impacts for help); or

7) Actions necessary to facilitate lake, wetland, or stream restoration through dam removal or other significant reconfiguration activities preclude attainment of the designated use and criterion while the actions are being implemented.

Go to Q22.

Q22) The WQS variance must include the interim requirements that apply throughout the term of the WQS variance. These interim requirements represent the highest attainable condition (HAC) and must be specified in terms that are quantifiable (see 40 CFR Part 131.14(b)(1)(ii)(A)). Examples of a quantifiable expression include one or more numeric pollutant concentrations in ambient water, numeric effluent conditions, or other quantitative expressions of pollutant reduction, such as the maximum number of combined sewer overflows achievable after implementation of a long-term control plan or a percent reduction in pollutant loads.

Identify which of the following quantifiable expressions the state or authorized tribe will use to specify the highest attainable condition for this WQS variance (select one):

1) The highest attainable interim criterion; or

Example: a weekly average ambient concentration of 20.0 µg/L for dissolved copper.

2) The interim effluent condition that reflects the greatest pollutant reduction achievable; or

Example: a weekly average discharge concentration of 24.0 µg/L for dissolved copper.

If no additional feasible pollutant control technology can be identified such that #1 and #2 are not possible, you may consider exploring HAC expression #3 as follows:

3) The interim criterion or interim effluent condition that reflects the greatest pollutant reduction achievable with optimization (i.e., well operated and maintained) of the pollutant control technologies installed at the time the state or authorized tribe adopts the WQS variance, and the adoption and implementation of a Pollutant Minimization Program (PMP)[1].

Example: a weekly average dissolved copper discharge concentration of 24.0 µg/L using current pollutant control technologies installed and implementation of the Pollutant Minimization Program described at Surface Water Quality Standards §100.123.456.

1. A Pollutant Minimization Program, in the context of 40 CFR §131.14, is a structured set of activities to improve processes and pollutant controls that will prevent and reduce pollutant loadings.

If HAC Expression #1, go to Q23-1.
If HAC Expression #2, go to Q23-2.
If HAC Expression #3, go to Q23-3.

Q23-1) You have indicated that the state or authorized tribe will express the HAC for this WQS variance as the highest attainable interim criterion.

Specify the quantifiable HAC expression you have selected.

NOTE: If you are drafting a multiple discharger variance and would like to include the HAC(s) in a table, leave the box below blank and click "Continue (multiple HACs)".

Example: a weekly average ambient concentration of 20.0 µg/L for dissolved copper

Go to Q24 (page 12).

Q23-2) You have indicated that the state or authorized tribe will express the HAC for this WQS variance as the interim effluent condition that reflects the greatest pollutant reduction achievable.

Specify the quantifiable HAC expression you have selected.

NOTE: If you are drafting a multiple discharger variance and would like to include the HAC(s) in a table, leave the box below blank and click "Continue (multiple HACs)".

Example: a weekly average discharge concentration of 24.0 µg/L for dissolved copper

Go to Q24 (page 12).

Q23-3) You have indicated that the state or authorized tribe will express the HAC for this WQS variance as the interim criterion or interim effluent condition that reflects the greatest pollutant reduction achievable with optimization (i.e., well operated and maintained) of the pollutant control technologies installed at the time the state or authorized tribe adopts the WQS variance, and the adoption and implementation of a Pollutant Minimization Program (PMP)[1].

Specify the greatest pollutant reduction achievable with optimization (i.e., well operated and maintained) of the pollutant control technologies installed at the time the state or authorized tribe adopts the WQS variance. Be sure to also include the location in your state or authorized tribal WQS regulations where the legally binding PMP for this WQS variance is located.

NOTE: If you are drafting a multiple discharger variance and would like to include the HAC(s) in a table, leave the first box blank and fill out the remaining information on this page. Then, click "Continue (multiple HACs)".

Example: a weekly average dissolved copper discharge concentration of 24.0 µg/L using current pollution control technologies installed and implementation of the Pollutant Minimization Program described at Surface Water Quality Standards §100.123.456

Describe the legally binding PMP for this WQS variance.

Example: In addition to requiring that the discharger meet the permit limits for copper, the permit requires that the facility make reasonable progress toward achieving the underlying copper WQS by implementing a PMP to identify and eliminate sources of copper. The facility plans to do the following actions during the next permit term: 1) conduct copper sampling, including methodically conducting testing starting at Outfall 005 and working backward, 2) develop copper reduction alternatives, including considering alternative raw materials, continued improvements in operation practices, and alternative processes (e.g. boiler makeup and wastewater recycling), and 3) monitor and assess implementation of copper reduction alternatives.

NOTE: This PMP is subject to EPA review and approval/disapproval.

1. A Pollutant Minimization Program, in the context of 40 CFR §131.14, is a structured set of activities to improve processes and pollutant controls that will prevent and reduce pollutant loadings.

Go to Q25.

Q24) It is possible the discharger may need time to come into compliance with the WQBEL based on the highest attainable condition. A mechanism to provide that time could include a permit compliance schedule. As with any permit compliance schedule, the use of a compliance schedule must first be authorized by the state, consistent with 40 CFR Part 131.15 before a compliance schedule is granted. Any subsequent compliance schedule included by the permitting authority in an NPDES permit must be consistent with 40 CFR Part 122.47.

If you do not have a CWA-effective permit compliance schedule authorizing provision that can be used to provide time to meet a WQBEL based on the highest attainable condition for the WQS variance, please choose to add such compliance schedule language to this WQS variance.

Compliance Schedule Language: *"Where necessary, the [state, authorized tribe] authorizes the use of permit compliance schedules to provide time to meet any WQBEL derived from the highest attainable condition for this WQS variance, as soon as possible, consistent with 40 CFR Part 122.47."*

Go to Q25.

Q25) A WQS variance must specify a term (the length of time that is only as long as necessary to achieve the HAC). The state or authorized tribe must justify the term of the WQS variance by including in the supporting documentation a

description of the pollutant control activities that will be implemented during the WQS variance to achieve the HAC. These activities must reflect only the time needed to plan, implement, or evaluate the outcome of those activities. The term may be expressed as either the date of expiration or an interval of time from EPA approval. (See 40 CFR Part 131.14(b)(1)(iv))

NOTE: *See the regulations at 40 CFR Part 132 Appendix F, Procedure (2)(B) for more information on specific requirements for terms of WQS variances applicable to waters in or discharging to the Great Lakes System.*

What is the term of the WQS variance?

Examples: "on March 1, 2025" OR "5 years from EPA approval".

Go to Q26.

Q26) Does the WQS variance term exceed 5 years?

Select one:

"Yes" or "No"

If "Yes", go to Q27.
If "No", go to C6 (page 14).

Q27) Federal regulations require a WQS variance with a term greater than five years to include:

- A specified frequency to reevaluate the highest attainable condition using all existing and readily available information. The reevaluation frequency must be at least once every 5 years from the date of EPA approval (see 40 CFR Part 131.14(b)(1)(v)).

  Specify the frequency of reevaluation for this WQS variance.

  Examples can include but are not limited to: 1) every 5 years from EPA approval OR 2) 1 year prior to the NPDES permit expiration OR 3) at each WQS triennial review throughout the duration of the WQS variance

- A legally binding provision specifying how the state or authorized tribe intends to obtain public input on each reevaluation (see 40 CFR Part 131.14(b)(1)(v)).

  Specify how public input will be obtained for reevaluations of this WQS variance.

  Examples can include but are not limited to: holding public meetings, opening public comment periods on relevant supporting documents for the WQS variance, obtaining public comment through the public process on a draft NPDES permit, etc.

- A legally binding provision specifying that the HAC will either be the HAC at the time of adoption or a higher attainable condition identified during any subsequent reevaluation, whichever is more stringent (see 40 CFR Part

131.14(b)(1)(iii)). (*This provision is automatically built into the template*).

- A legally binding provision that if the state or authorized tribe does not complete a reevaluation on the schedule specified in the WQS variance and/or does not submit the results to EPA within 30 days of completion, the variance is no longer the applicable water quality standard for CWA purposes until they complete and/or submit the reevaluation (see 40 CFR Part 131.14(b)(1)(vi)). (*This provision is automatically built into the template*).

  Go to C6.

C6) In order to adopt a WQS variance, the state or authorized tribe must hold one or more public hearings to meet the public participation requirements at 40 CFR Part 131.20(b). EPA's regulations at 40 CFR Part 25.5 specify the requirements for conducting such hearings, including providing a well-publicized notice at least 45 days prior to the date of the hearing and supporting analyses/documentation to the public at least 30 days prior to the date of the hearing.

Throughout and following the public participation process, the state or authorized tribe should consider any public input received and make any necessary revisions to the WQS variance and/or supporting documentation.

Go to C7.

C7) EPA recommends that the state or authorized tribe coordinate with its EPA regional office before adopting the WQS variance into state or authorized tribal regulations. Early and frequent communication with EPA will help ensure that the WQS variance submission will be consistent with federal regulations and CWA requirements. (See EPA's website for relevant contact information.)

Go to R5 (page 20).

Q28) Identify the waterbody or waterbody segment to which the WQS variance will apply. Include identifying information such as the name and location of the waterbody or waterbody segment.

Example: Name of waterbody or waterbody segment (located between river mile markers 10 and 20).

(See 40 CFR Part 131.14(b)(1)(i))

Go to Q29.

Q29) The regulations at 40 CFR Part 131.14(b)(2)(i) require the state or authorized tribe to submit supporting documentation demonstrating the need for a WQS variance. The type of demonstration required depends on whether the designated use is a 101(a)(2) use[1] or a non-101(a)(2) use[2].

Which type of designated use is affected by this WQS variance?

1. 101(a)(2) uses are any uses specified in Section 101(a)(2) of the CWA, or subcategory of such a use. Examples include but are not limited to: cold-water aquatic life use and primary contact recreation use.

2. Non-101(a)(2) uses are any uses unrelated to the protection and propagation of fish, shellfish, and wildlife or recreation in or on the water. Examples include but are not limited to: navigational, agricultural, industrial, or public water supply uses.

Select one:

"101(a)(2)" or "Non-101(a)(2)"

If "101(a)(2)", go to Q30.

If "Non-101(a)(2)", go to Q31.

Q30) A WQS variance for a use specified in section 101(a)(2) of the Act, or sub-category of such a use, requires a demonstration that attaining the designated use is not feasible during the term of the WQS variance due to at least one of the factors specified in 40 CFR Part 131.14(b)(2)(i)(A). Select the relevant factor(s) listed below. Document how the selected factor(s) precludes attainment of the use during the term of the WQS variance and include such documentation in the supporting documentation submitted to EPA with the WQS variance.

Select the factor(s) that apply:

1) Naturally occurring pollutant concentrations prevent the attainment of the use; or

2) Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or

3) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way that would result in the attainment of the use; or

5) Physical conditions related to the natural features of the waterbody, such as a lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to the water quality, preclude attainment of aquatic life protection uses; or

6) Controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact (see EPA's spreadsheet tools to evaluate economic impacts for help); or

7) Actions necessary to facilitate lake, wetland, or stream restoration through dam removal or other significant reconfiguration activities preclude attainment of the designated use and criterion while the actions are being implemented.

Go to Q33 (page 16).

Q31) Before adopting a WQS variance for a non-101(a)(2) use, federal regulations require a demonstration that consideration of the use and value of the water for those uses listed in 40 CFR Part 131.10(a) appropriately supports the WQS variance and its term as specified in 40 CFR Part 131.14(b)(2)(i)(B). This requirement can also be satisfied by providing a demonstration showing that attaining the designated use and associated criterion is not feasible due to at least one of the regulatory factors specified in 40 CFR Part 131.14(b)(2)(i)(A).

Which type of demonstration will the state or authorized tribe provide for this WQS variance?

Select one:

"Consideration of the use and value of the water" or "Attainability of the designated use"

If "Consideration of the use and value of the water", go to C8.

If "Attainability of the designated use", go to Q32.

C8) The state or authorized tribe will need to document how the consideration of the use and value of the water for the non-101(a)(2) uses affected by this WQS variance appropriately supports the WQS variance and term (see 40 CFR Part 131.14(b)(2)(i)(B)). The state or authorized tribe must include this documentation with the WQS variance they submit to EPA for review and approval or disapproval.

Go to Q33.

Q32) The state or authorized tribe will need to demonstrate that the designated use and associated criterion are not feasible to attain throughout the term of the WQS variance using at least one of the factors specified in 40 CFR Part 131.14(b)(2)(i)(A). Select the relevant factor(s) listed below. Describe in separate documentation how the selected factor(s) precludes attainment of the designated use and associated criterion during the term of the WQS variance. The state or authorized tribe must include this documentation with the WQS variance they submit to EPA for review and approval or disapproval.

Select the factor(s) that apply:

1) Naturally occurring pollutant concentrations prevent the attainment of the use; or

2) Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or

3) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way that would result in the attainment of the use; or

5) Physical conditions related to the natural features of the waterbody, such as a lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to the water quality, preclude attainment of aquatic life protection uses; or

6) Controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact (see EPA's spreadsheet tools to evaluate economic impacts for help); or

7) Actions necessary to facilitate lake, wetland, or stream restoration through dam removal or other significant reconfiguration activities preclude attainment of the designated use and criterion while the actions are being implemented.

Go to Q33.

Q33) The WQS variance must include the interim requirements that apply throughout the term of the WQS variance. These interim requirements represent the highest attainable condition (HAC) and must be specified in terms that are quantifiable (see 40 CFR Part 131.14(b)(1)(ii)(B)). Examples of a quantifiable expression include one or more numeric pollutant concentrations in ambient water, or other quantitative expressions of pollutant reduction, such as the maximum number of combined sewer overflows achievable after implementation of a long-term control plan or a percent reduction in pollutant loads.

Identify which of the following quantifiable expressions the state or authorized tribe will use to specify the highest attainable condition for this WQS variance (select one):

1) The highest attainable interim use and interim criterion; or

Example: a cold, freshwater habitat use with a weekly average ambient concentration of 20.0 µg/L for dissolved copper.

If no additional feasible pollutant control technology can be identified such that #1 is not possible, you may consider exploring HAC expression #2 as follows:

2) The interim use and interim criterion that reflects the greatest pollutant reduction achievable with optimization (i.e., well operated and maintained) of the pollutant control technologies installed at the time the state or authorized tribe adopts the WQS variance, and the adoption and implementation of a Pollutant Minimization Program (PMP)[1].

Example: a cold, freshwater habitat use with a weekly average dissolved copper discharge concentration of 24.0 µg/L using current pollutant control technologies installed and implementation of the Pollutant Minimization Program described at Surface Water Quality Standards §100.123.456.

1. A Pollutant Minimization Program, in the context of 40 CFR §131.14, is a structured set of activities to improve processes and pollutant controls that will prevent and reduce pollutant loadings.

If HAC Expression #1, go to Q34-1.

If HAC Expression #2, go to Q34-2.

Q34-1) You have indicated that the state or authorized tribe will express the HAC for this WQS variance as the highest attainable interim use and interim criterion.

Specify the quantifiable HAC expression you have selected.

Example: a cold, freshwater habitat use with a weekly average ambient concentration of 20.0 µg/L for dissolved copper

Go to Q35 (page 18).

Q34-2) You have indicated that the state or authorized tribe will express the HAC for this WQS variance as the interim use and interim criterion that reflects the greatest pollutant reduction achievable with optimization (i.e., well operated and maintained) of the pollutant control technologies installed at the time the state or authorized tribe adopts the WQS variance, and the adoption and implementation of a Pollutant Minimization Program (PMP)[1].

Specify the interim use and the greatest pollutant reduction achievable with optimization (i.e., well operated and maintained) of the pollutant control technologies installed at the time the state or authorized tribe adopts the WQS variance. Be sure to also include the location in your state or authorized tribal WQS regulations where the legally binding PMP for this WQS variance is located.

Example: a cold, freshwater habitat use with a weekly average dissolved copper discharge concentration of 24.0 µg/L using current pollution control technologies installed and implementation of a Pollutant Minimization Program described at Surface Water Quality Standards §100.123.456

Describe the legally binding PMP for this WQS variance.

Example: In addition to requiring that the discharger meet the permit limits for copper, the permit requires that the facility make reasonable progress toward achieving the underlying copper WQS by implementing a PMP to identify and eliminate sources of copper. The facility plans to do the following actions during the next permit term: 1) conduct copper sampling, including methodically conducting testing starting at Outfall 005 and working backward, 2) develop copper reduction alternatives, including considering alternative raw materials, continued improvements in operation practices, and alternative processes (e.g. boiler makeup and wastewater recycling), and 3) monitor and assess implementation of copper reduction alternatives.

NOTE: This PMP is subject to EPA review and approval/disapproval.

1. A Pollutant Minimization Program, in the context of 40 CFR §131.14, is a structured set of activities to improve processes and pollutant controls that will prevent and reduce pollutant loadings.

Go to Q36.

Q35) It is possible the discharger may need time to come into compliance with the WQBEL based on the highest attainable condition. A mechanism to provide that time could include a permit compliance schedule. As with any permit compliance schedule, the use of a compliance schedule must first be authorized by the state, consistent with 40 CFR Part 131.15 before a compliance schedule is granted. Any subsequent compliance schedule included by the permitting authority in an NPDES permit must be consistent with 40 CFR Part 122.47.

If you do not have a CWA-effective permit compliance schedule authorizing provision that can be used to provide time to meet a WQBEL based on the highest attainable condition for the WQS variance, please choose to add such compliance schedule language to this WQS variance.

Compliance Schedule Language: *"Where necessary, the [state, authorized tribe] authorizes the use of permit compliance schedules to provide time to meet any WQBEL derived from the highest attainable condition for this WQS variance, as soon as possible, consistent with 40 CFR Part 122.47."*

Go to Q36.

Q36) A WQS variance must specify a term (the length of time that is only as long as necessary to achieve the HAC). The state or authorized tribe must justify the term of the WQS variance by including in the supporting documentation a description of the pollutant control activities that will be implemented during the WQS variance to achieve the HAC. These activities must reflect only the time needed to plan, implement, or evaluate the outcome of those activities. The

term may be expressed as either the date of expiration or an interval of time from EPA approval. (See 40 CFR Part 131.14(b)(1)(iv))

NOTE: *See the regulations at 40 CFR Part 132 Appendix F, Procedure (2)(B) for more information on specific requirements for terms of WQS variances applicable to waters in or discharging to the Great Lakes System.*

What is the term of the WQS variance?

Examples: "on March 1, 2025" OR "5 years from EPA approval".

Go to Q37.

Q37) Does the WQS variance term exceed 5 years?

Select one:

"Yes" or "No"

If "Yes", go to Q38.
If "No", go to C9 (page 20).

Q38) Federal regulations require a WQS variance with a term greater than five years to include:

- A specified frequency to reevaluate the highest attainable condition using all existing and readily available information. The reevaluation frequency must be at least once every 5 years from the date of EPA approval (see 40 CFR Part 131.14(b)(1)(v)).

  Specify the frequency of reevaluation for this WQS variance.

  Examples can include but are not limited to: 1) every 5 years from EPA approval OR 2) 1 year prior to the NPDES permit expiration OR 3) at each WQS triennial review throughout the duration of the WQS variance

- A legally binding provision specifying how the state or authorized tribe intends to obtain public input on each reevaluation (see 40 CFR Part 131.14(b)(1)(v)).

  Specify how public input will be obtained for reevaluations of this WQS variance.

  Examples can include but are not limited to: holding public meetings, opening public comment periods on relevant supporting documents for the WQS variance, obtaining public comment through the public process on a draft NPDES permit, etc.

- A legally binding provision specifying that the HAC will either be the HAC at the time of adoption or a higher attainable condition identified during any subsequent reevaluation, whichever is more stringent (see 40 CFR Part

131.14(b)(1)(iii)). (*This provision is automatically built into the template*).

- A legally binding provision that if the state or authorized tribe does not complete a reevaluation on the schedule specified in the WQS variance and/or does not submit the results to EPA within 30 days of completion, the variance is no longer the applicable water quality standard for CWA purposes until they complete and/or submit the reevaluation (see 40 CFR Part 131.14(b)(1)(vi)). (*This provision is automatically built into the template*).

Go to C9.

C9) The regulations at 40 CFR Part 131.14(b)(2)(iii) specify two additional requirements for WQS variances applicable to a waterbody or waterbody segment including:

- Identification and documentation of any cost-effective and reasonable best management practices for nonpoint source[1] controls related to the pollutant(s) or water quality parameter(s) and waterbody or waterbody segment(s) specified in the WQS variance that could be implemented to make progress towards attaining the underlying designated use and criterion. The state or authorized tribe must also provide public notice and comment for any such document.
- Any subsequent WQS variance for a waterbody or waterbody segment must include documentation of whether and to what extent best management practices for nonpoint source controls were implemented to address the pollutant(s) or water quality parameter(s) subject to the WQS variance and the water quality progress achieved.

The state or authorized tribe should prepare such documentation and submit it along with the WQS variance and all other required supporting documentation to EPA for CWA 303(c) review.

1. See EPA's website for more information on nonpoint sources of pollution.

Go to C6 (page 14).

R1) The regulation at 40 CFR Part 131.14(a)(4) prohibits a permittee from receiving a WQS variance when the designated use and associated criterion can be achieved by implementing technology-based effluent limits required under Sections 301(b) and 306 of the CWA. The permitee must comply with any applicable TBEL's.

R2) The permitee must comply with the applicable WQBEL derived from the designated use and associated criterion. A WQS variance is not appropriate.

R3) Permit compliance schedules are a more appropriate tool for situations where an enforceable sequence of actions that will lead to compliance with the WQBEL can be identified. The state or authorized tribe should consider using a permit compliance schedule consistent with 40 CFR Part 122.47, and adopting a permit compliance schedule authorizing provision consistent with 40 CFR Part 131.15, if none exists, to provide dischargers time to comply with WQBEL's.

R4) The state or authorized tribe should consider revising the designated use and associated criterion consistent with the regulations at 40 CFR Part 131.10 and 40 CFR Part 131.11.

R5) Use the information provided in this tool, as well as the draft regulatory language located below, to engage in discussions with EPA and stakeholders and to begin creating a legally binding WQS variance (see EPA's website for relevant contact information). If necessary, tailor the draft regulatory language to include additional information that more accurately captures the case-specific facts of the individual WQS variance or fits a desired format as long as all federal requirements are met. Then, adopt the final WQS variance and submit it, along with all necessary supporting documentation, to EPA for CWA 303(c) review. **Be sure to copy and paste the draft regulatory language below into a separate document before clicking "start over"**. Please also refer to the "Checklist for Water Quality Standards Variance

Supporting Documentation Requirements" on the "Resources" tab to see what additional information must be documented and submitted to EPA to support this WQS variance.

If EPA approves the WQS variance, the WQS variance will become the applicable water quality standard when developing NPDES permit limits and requirements for the discharger(s) and the pollutant(s)/parameter(s) specified in the WQS variance. The approved WQS variance can also be used when issuing CWA Section 401 certifications. All other WQS not addressed by the WQS variance continue to apply. The state or authorized tribe must retain the underlying designated use and associated criterion in their WQS. The underlying designated use and criteria will continue to apply for all other CWA purposes (e.g., total maximum daily loads and 303(d) listings).

If EPA disapproves the WQS variance, consult with your EPA regional office and consider any remedies EPA may provide. If the state or authorized tribe chooses to resubmit a revised WQS variance, the state or authorized tribe should coordinate with EPA as needed and resubmit the revised WQS variance for CWA 303(c) review.