

Revised Definition of “Waters of the United States”

Tribal and State Webinars
Webinar 2:
Relatively Permanent Standard
March 30, 2023



Tribal and State Webinar Series

- March 22, 2023: Overview
- **March 30, 2023: Relatively Permanent Standard**
- April 5, 2023: Significant Nexus Standard
- April 12, 2023: Exclusions and Other Topics

Please email wotus-outreach@epa.gov for registration information for the webinars.

Presentation Outline

- Final Rule Framework
- Relatively Permanent Standard
 - Tributaries
 - Adjacent Wetlands
 - Waters Assessed under Paragraph (a)(5)
- Tools and Resources
- Questions and Answers



Rule Status and Litigation Update

- On March 19, 2023, the U.S. District Court for the Southern District of Texas granted a motion preliminarily enjoining the 2023 final rule in Idaho and Texas. The agencies are reviewing the decision and their options.
- The rule took effect on March 20, 2023. The rule is currently operative in all jurisdictions of the United States except Idaho and Texas.
- In light of the preliminary injunction, the agencies are interpreting “waters of the United States” consistent with the pre-2015 regulatory regime in Idaho and Texas until further notice.

<https://www.epa.gov/wotus/definition-waters-united-states-rule-status-and-litigation-update>

Final Rule Framework

Categories of Jurisdictional Waters

(a)(1)

- (i) Traditional Navigable Waters
- (ii) Territorial Seas
- (iii) Interstate Waters

(a)(2) Impoundments of Jurisdictional Waters

(a)(3) Tributaries

(a)(4) Adjacent Wetlands

(a)(5) Intrastate lakes and ponds, streams, and wetlands that do not fall within (a)(1) – (a)(4)



***NOTE:** The categories of jurisdictional waters listed on this slide are shorthand categories that are being used for efficiency. See the final regulatory text at 33 CFR 328.3(a) and 40 CFR 120.2(a) for the full text of the categories.

The Relatively Permanent Standard

- The “relatively permanent standard” means relatively permanent, standing or continuously flowing waters connected to paragraph (a)(1) waters, and waters with a continuous surface connection to such relatively permanent waters or to paragraph (a)(1) waters.
- Certain tributaries, adjacent wetlands, and waters assessed under paragraph (a)(5) are jurisdictional if they meet the relatively permanent standard.



(a)(3) Tributaries

- Tributaries include natural, man-altered, or man-made water bodies that flow directly or indirectly into (a)(1) waters or (a)(2) impoundments.
 - Tributaries can include rivers, streams, lakes, ponds, and impoundments.
 - Tributaries can also include ditches and canals.
- Jurisdictional tributaries must meet either:
 - The relatively permanent standard OR
 - The significant nexus standard



(a)(3) Tributaries

Relatively Permanent Standard

Relatively permanent waters include tributaries that have flowing or standing water year-round or continuously during certain times of year.

Relatively permanent waters do not include tributaries with flowing or standing water for only a short duration in direct response to precipitation.



(a)(3) Tributaries

Relatively Permanent Standard – Types of Waters

Relatively permanent waters include tributaries that have flowing or standing water year-round or continuously during certain times of year.

- “Flowing water” is meant to encompass not just streams and rivers, but also lakes, ponds, and impoundments that are part of the tributary system.
- “Flowing water” is also meant to encompass those tributaries that are frozen for parts of the year. Such tributaries typically have flowing water underneath the frozen surface.



(a)(3) Tributaries

Relatively Permanent Standard – Duration and Timing of Flow

Relatively permanent waters include tributaries that have flowing or standing water year-round or continuously during certain times of year.

- “Certain times of the year” is intended to include extended periods of standing or continuously flowing water occurring in the same geographic feature year after year, except in times of drought.
- Relatively permanent flow may occur seasonally, but the phrase is also intended to encompass tributaries in which extended periods of standing or continuously flowing water are not linked to naturally recurring annual or seasonal cycles.



(a)(3) Tributaries

Relatively Permanent Standard – Duration and Timing of Flow

Relatively permanent waters do not include tributaries with flowing or standing water for only a short duration in **direct response to precipitation**.

- “Direct response to precipitation” is intended to distinguish between episodic periods of flow associated with discrete precipitation events versus continuous flow for extended periods of time.
- No minimum flow duration has been established because flow duration varies extensively by region.



(a)(3) Tributaries

Relatively Permanent Standard – Source of Flow

The relatively permanent standard does not require flows to originate from any particular source.

Sources of flow may include:

- An elevated groundwater table that provides baseflow to a channel;
- Upstream contributions of flow;
- Effluent flow;
- Snowpack that melts slowly in certain geographic regions or at high elevations; and
- Concentrated period of back-to-back precipitation events that leads to sustained flow through a combination of runoff and upstream contributions of flow or an elevated groundwater table that provides baseflow to the channel bed.



(a)(3) Tributaries

Relatively Permanent Standard – Source of Flow

- Tributaries that flow in direct response to “snowfall” for only a short duration during or shortly after that snowfall event would be considered non-relatively permanent waters under this rule.
- Streams that flow continuously during certain times of the year as a result of “snowpack melt” will be considered relatively permanent waters under this rule, where snowpack is defined as layers of snow that accumulate over extended periods of time in certain geographic regions or at high elevation.



(a)(3) Tributaries

Relatively Permanent Standard – Assessing Relatively Permanent Flow

- The flow characteristics of a tributary should be evaluated for the entire reach of the tributary that is of the same Strahler stream order.
- The flow characteristics of lakes, ponds, and impoundments that are part of the tributary network will be assessed in conjunction with the stream they connect to.

Figure 2-1. A generalized example of a river network within its watershed. Blue lines illustrate the river network, within the light green area of its watershed. Numbers represent Strahler stream order, with streams increasing in order when two streams of equal order join. Blue squares indicate channel heads, and orange dots depict confluences.

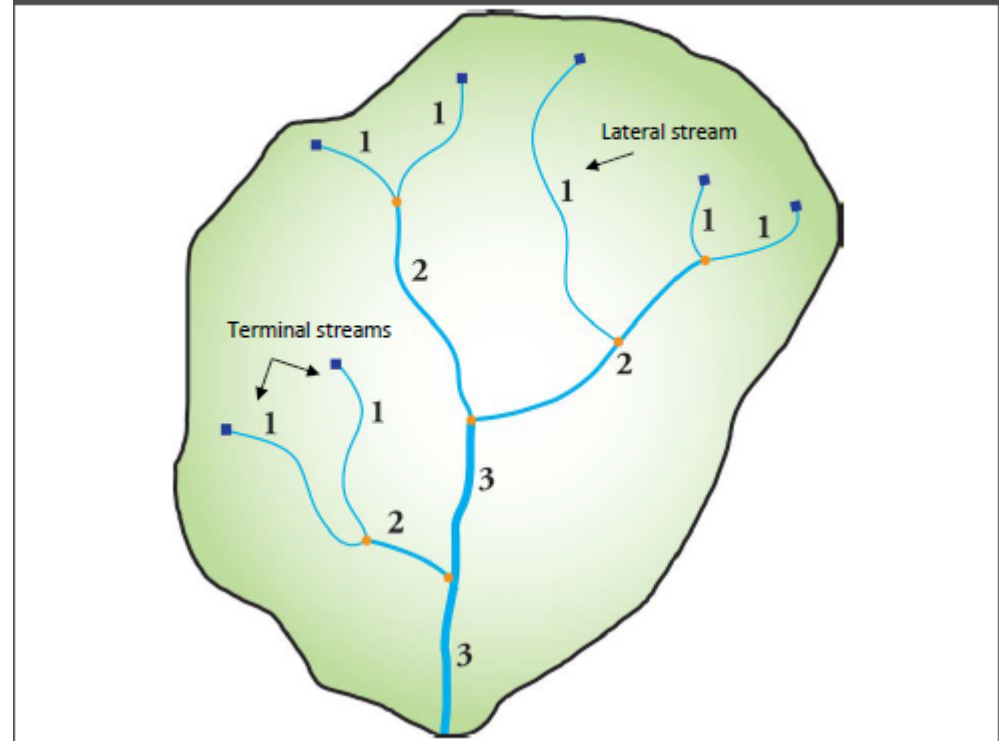


Figure 2-1 from the 2015 Science Report

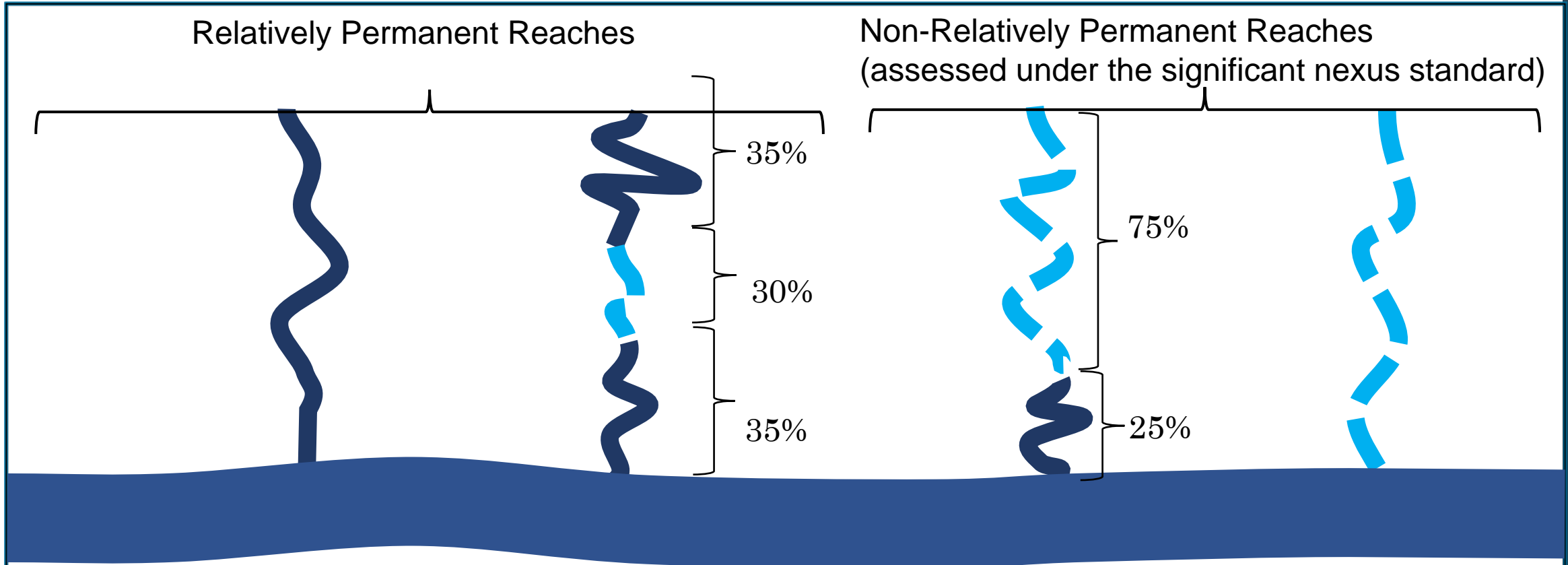
(a)(3) Tributaries

Relatively Permanent Standard – Assessing Relatively Permanent Flow



- In order to determine whether a tributary meets the relatively permanent standard, the flow characteristics of a particular tributary should be examined at the farthest downstream limit of the tributary (i.e., the point the tributary enters a higher order stream).
- Where data indicates the flow characteristics at the downstream limit are not representative of the entire reach of the tributary, the flow characteristics that best characterize the entire tributary reach will be used.



(a)(3) TRIBUTARIES – FLOW ASSESSMENT



Legend

-  Relatively permanent portion of stream
-  Non-relatively permanent portion of stream

1. To determine the flow characteristics of a tributary, evaluate the entire reach of the tributary that is of the same Strahler stream order (i.e., from the point of confluence, where two lower order streams meet to form the tributary, downstream to the point such tributary enters a higher order stream).
2. The agencies will assess the flow characteristics of a particular tributary at the farthest downstream limit of such tributary (i.e., the point the tributary enters a higher order stream).
3. Where data indicate the flow characteristics at the downstream limit are not representative of the entire reach of the tributary, the flow characteristics that best characterize the entire tributary reach will be used.
4. The relatively permanent standard encompasses tributaries that have flowing or standing water year-round or continuously during certain times of the year. Relatively permanent waters do not include tributaries with flowing or standing water for only a short duration in direct response to precipitation.

(a)(4) Adjacent Wetlands

Jurisdictional adjacent wetlands include:

- Wetlands that are adjacent to an (a)(1) water;
- **Adjacent wetlands that meet the relatively permanent standard;**
- Adjacent wetlands that meet the significant nexus standard.



(a)(4) Adjacent Wetlands

Relatively Permanent Standard

Adjacent wetlands meet the relatively permanent standard if they have a continuous surface connection to a relatively permanent paragraph (a)(2) impoundment or a relatively permanent jurisdictional tributary.



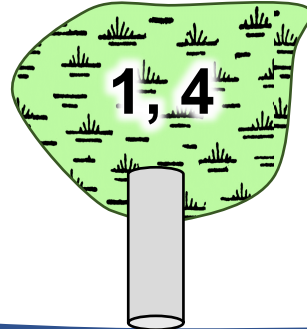
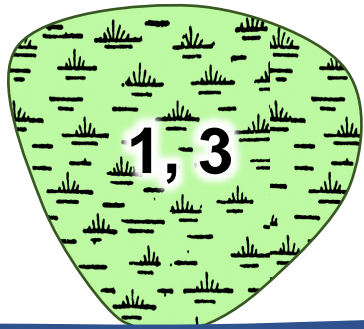
(a)(4) Adjacent Wetlands

Relatively Permanent Standard – Continuous Surface Connection

- The continuous surface connection requirement is a “physical connection requirement.”
- A continuous surface connection does not require a constant hydrologic connection.
- A **continuous surface connection** means the wetlands either physically abut or touch the relatively permanent water, or are connected to the relatively permanent water by a discrete feature like a non-jurisdictional ditch, swale, pipe, or culvert.

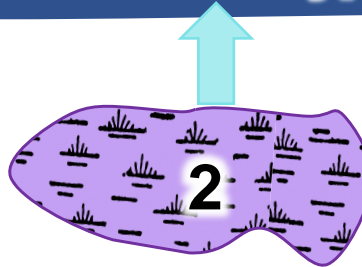
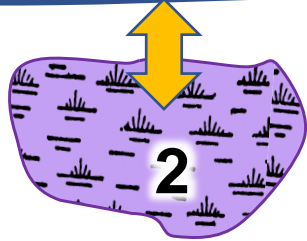


RELATIVELY PERMANENT STANDARD: ADJACENT WETLANDS









*The numbers shown on each example correspond to the numbered notes in the bottom right box.

Relatively permanent (a)(2) impoundment or tributary that meets the relatively permanent standard



Legend

-  Adjacent wetland with continuous surface connection; meets the relatively permanent standard
-  Wetland lacks continuous surface connection; evaluate under the significant nexus standard.
-  Pipe or culvert
-  Overland sheetflow
-  Shallow subsurface connection
-  Non-jurisdictional physical feature or discrete conveyance

1. Adjacent wetlands meet the relatively permanent standard if they have a continuous surface connection to a relatively permanent paragraph (a)(2) impoundment or a jurisdictional tributary when the jurisdictional tributary meets the relatively permanent standard. Wetlands that have a continuous surface connection to such waters are a subset of adjacent wetlands.
2. Wetlands that do not have a continuous surface connection but are adjacent to paragraph (a)(2) impoundments or jurisdictional tributaries will be evaluated for jurisdiction under the significant nexus standard.
3. Waters meet the continuous surface connection requirement if they physically abut or touch a relatively permanent paragraph (a)(2) impoundment or a jurisdictional tributary when the jurisdictional tributary meets the relatively permanent standard.
4. Waters also meet the continuous surface connection requirement if they are connected to relatively permanent waters by a discrete feature like a non-jurisdictional ditch, swale, pipe, or culvert. This is because a ditch or other such feature can serve as a physical connection that maintains a continuous surface connection between an adjacent wetland and a relatively permanent water.

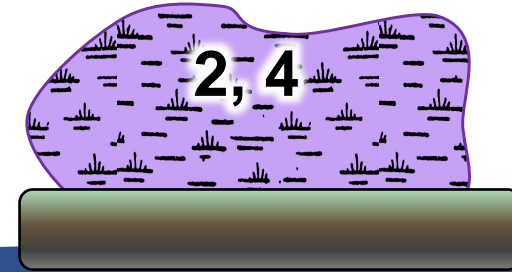
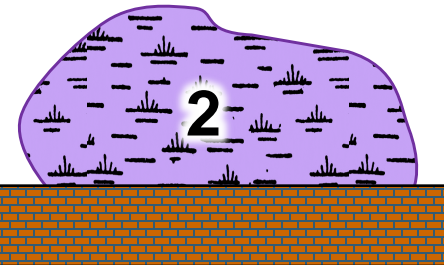
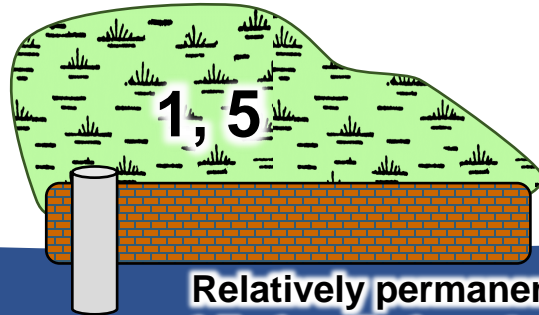
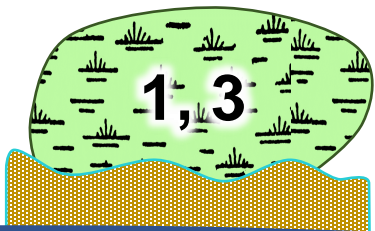
(a)(4) Adjacent Wetlands

Relatively Permanent Standard – Continuous Surface Connection

- A natural berm, bank, dune, or similar natural landform between an adjacent wetland and a relatively permanent water does not sever a continuous surface connection to the extent they provide evidence of a connection.
 - For example, the presence of a beaver dam between a wetland and a relatively permanent water can also be evidence of a continuous surface connection between the two features, even if the dam itself blocks surface hydrologic flow for periods of time.
- However, not all natural berms, banks, dunes, and similar natural landforms demonstrate evidence of a continuous surface connection.
 - For example, an adjacent wetland may be separated from a relatively permanent water by a relict landform like a natural berm that no longer interacts hydrologically with the tributary network. Such relict barriers do not demonstrate evidence of a continuous surface connection and may in fact sever the continuous surface connection.

RELATIVELY PERMANENT STANDARD: ADJACENT WETLANDS

*The numbers shown on each example correspond to the numbered notes in the bottom right box.



Relatively permanent (a)(2) impoundment or tributary that meets the relatively permanent standard

Legend



Adjacent wetland with continuous surface connection; meets the relatively permanent standard



Adjacent wetland lacks continuous surface connection; evaluate under the significant nexus standard.



Natural berm, bank, dune, or similar natural landform that provides evidence of a continuous surface connection



Dike or artificial barrier



Non-jurisdictional discrete feature or discrete conveyance



Cliff, bluff, or canyon wall

1. Adjacent wetlands meet the relatively permanent standard if they have a continuous surface connection to a relatively permanent paragraph (a)(2) impoundment or a jurisdictional tributary when the jurisdictional tributary meets the relatively permanent standard. Wetlands that have a continuous surface connection to such waters are a subset of adjacent wetlands.
2. Wetlands that do not have a continuous surface connection but are adjacent to paragraph (a)(2) impoundments or jurisdictional tributaries will be evaluated for jurisdiction under the significant nexus standard.
3. A natural berm, bank, dune, or similar natural landform between an adjacent wetland and a relatively permanent water does not sever a continuous surface connection to the extent it provides evidence of a continuous surface connection.
4. Wetlands separated from jurisdictional waters by cliffs, bluffs, or canyon walls also typically do not have a continuous surface connection. However, if these cliffs, bluffs, or canyon walls have gaps or built structures (e.g., culverts, pipes, or waterfalls) that provide for a continuous surface connection between the adjacent wetlands and the relatively permanent water, this type of connection would satisfy the physical connection requirement for a continuous surface connection.
5. The same is true for dikes or other artificial barriers with gaps or structural components that allow for a continuous surface connection. For example, an upland levee that separates an adjacent wetland from a tributary that is relatively permanent may have gaps along the length of the levee that provide for a physical connection between the wetlands and the tributary that satisfies the requirement for a continuous surface connection.

(a)(5) Waters: waters not identified in (a)(1) – (a)(4)

Jurisdictional (a)(5) waters include intrastate lakes and ponds, streams, and wetlands not identified in the other jurisdictional categories, that meet either:

- The relatively permanent standard OR
- The significant nexus standard



(a)(5) Waters: waters not identified in (a)(1) – (a)(4)

Relatively Permanent Standard

Waters assessed under paragraph (a)(5) meet the relatively permanent standard if they are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to a paragraph (a)(1) water or tributary that is relatively permanent.

- The agencies will assess waters under paragraph (a)(5) to determine if they are **relatively permanent** using a similar approach to the one described for tributaries.
- The agencies will assess a **continuous surface connection** between waters assessed under paragraph (a)(5) and a paragraph (a)(1) water or a tributary that is relatively permanent using the approach described for adjacent wetlands.



(a)(5) Waters: waters not identified in (a)(1) – (a)(4)

Relatively Permanent Standard

The agencies will assess waters under paragraph (a)(5) to determine if they are **relatively permanent** using a similar approach to the one described for tributaries.

- Relatively permanent waters under paragraph (a)(5) include surface waters that have flowing or standing water year-round or continuously during certain times of the year.
- Relatively permanent waters under paragraph (a)(5) do not include features with flowing or standing water for only a short duration in direct response to precipitation.



(a)(5) Waters: waters not identified in (a)(1) – (a)(4)

Relatively Permanent Standard

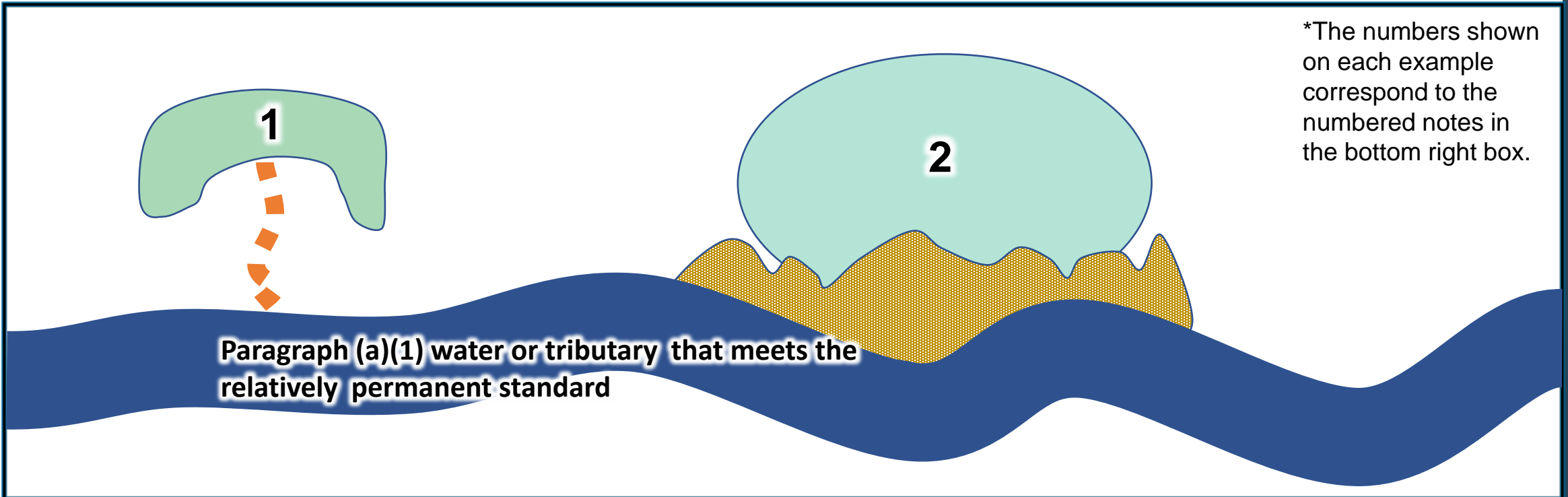
The agencies will assess a **continuous surface connection** between waters assessed under paragraph (a)(5) and a paragraph (a)(1) water or a tributary that is relatively permanent using the approach described for adjacent wetlands.

- A continuous surface connection does not require a constant hydrologic connection.
- Waters assessed under paragraph (a)(5) can meet the continuous surface connection requirement if they are connected to the relatively permanent water by a discrete feature like a non-jurisdictional ditch, swale, pipe, or culvert.
- Similarly, a natural berm, bank, dune, or similar natural landform does not sever a continuous surface connection to the extent it provides evidence of a continuous surface connection.






RELATIVELY PERMANENT STANDARD: WATERS ASSESSED UNDER PARAGRAPH (A)(5)

*The numbers shown on each example correspond to the numbered notes in the bottom right box.



Legend

-  Relatively permanent pond with a continuous surface connection; meets the relatively permanent standard.
-  Non-jurisdictional physical feature or discrete conveyance
-  Natural berm, bank, dune, or similar natural landform that provides evidence of a continuous surface connection

1. Waters assessed under paragraph (a)(5) can meet the continuous surface connection requirement if they are connected to a paragraph (a)(1) water or a tributary that is relatively permanent by a discrete feature like a non-jurisdictional ditch, swale, pipe, or culvert. This is because a ditch or other such feature can serve as a physical connection that maintains a continuous surface connection between an adjacent wetland and a relatively permanent water.
2. A natural berm, bank, dune, or similar natural landform between a water assessed under paragraph (a)(5) and a paragraph (a)(1) water or a tributary that is relatively permanent does not sever a continuous surface connection to the extent it provides evidence of a continuous surface connection.

Tools and Resources

Examples of tools to determine whether tributaries or waters assessed under paragraph (a)(5) are relatively permanent include:

- Direct observation
- Regional field observations
- [USACE Antecedent Precipitation Tool \(APT\)](#)
- [USGS Topographic Maps](#)
- [Regionalized streamflow duration assessment methods \(SDAMs\)](#)
- Aerial and satellite imagery
- [USGS National Hydrography Dataset \(NHD\)](#)
- Stream Gage data, including from [USGS](#)
- Regional regression analysis
- Hydrologic modeling tools such as [HEC-HMS](#)

Tools and Resources

Examples of tools to determine whether tributaries or waters assessed under paragraph (a)(5) are relatively permanent include:

- Elevation data and models, including [LIDAR](#) (for example, from the [USGS](#))
- State, tribal, and local data and maps
- [USGS StreamStats](#)
- [Probability of Streamflow Permanence \(PROSPER\) by the USGS](#) (including for the Pacific Northwest)
- NRCS hydrologic tools and [soil maps](#)
- NOAA national snow analyses maps
- NRCS snow sources
- [USEPA WATERS GeoViewer](#) and [How's My Waterway](#)
- [USGS National Map Viewer](#)

Tools and Resources

Examples of tools to determine whether an adjacent wetland or water assessed under paragraph (a)(5) has a continuous surface connection to a relatively permanent water include:

- Direct observation
- Regional field observations
- [USGS Topographic Maps](#)
- Aerial and satellite imagery
- [USGS NHD](#)
- [USFWS National Wetlands Inventory \(NWI\)](#)
- Elevation data such as [LIDAR](#)-based topographic models
- State, Tribal, and local data and maps
- NRCS hydrologic tools and [soil maps](#)
- [FEMA flood zone](#) or other floodplain maps

Additional Information

- See <https://www.epa.gov/wotus> for additional information.
- Please contact wotus-outreach@epa.gov with questions.

Questions and Answers

Please type your questions into the chat box.