

DREDGE AND FILL WHITE PAPER NO. 2
Summary of “Gap Waters”
Stakeholder Discussions
January 29, 2021

Executive Summary

In 2020, the United States Environmental Protection Agency and the United States Army Corps of Engineers promulgated a new definition of “Waters of the United States” (WOTUS) through the Navigable Waters Protection Rule (the “2020 Rule”). In May 2020, Colorado filed suit in the District Court of Colorado against the federal government to challenge the Navigable Waters Protection Rule under the federal Administrative Procedure Act, the National Environmental Policy Act, and the Endangered Species Act. On May 28, 2020, Colorado filed a motion for a preliminary injunction, requesting that the federal court enjoin the effectiveness of the 2020 Rule in Colorado. On June 19, 2020, the District Court of Colorado granted the state’s motion and enjoined the rule. That ruling is now under appeal in the Tenth Circuit. As of the publication date of this white paper, the 1988 regulations and the *EPA’s Clean Water Act Jurisdiction Following the Supreme Court Decision in Rapanos v. United States and Carabell v. United States* guidance document (2008 Guidance) are the controlling legal definition of the waters of the United States in Colorado.

The stay of the Navigable Waters Protection Rule in Colorado has allowed the Colorado Department of Public Health and Environment (department) and stakeholders to continue dialogue on the subset of state waters that may no longer receive a federal dredge and fill permit (i.e., 404 permit) if the Navigable Waters Protection Rule were to go into effect in Colorado. The purpose of this white paper is to summarize the discussions and outcomes of the stakeholder effort to identify the differences in how WOTUS waters are defined based on the 1988 regulations and 2008 Guidance versus the 2020 Rule. This white paper does not seek to provide additional interpretation or guidance on the 2008 Guidance and 2020 Rule.

The department and stakeholders reached consensus on a descriptive tabular approach to describe the differences in the waters meeting the WOTUS definition in accordance with the 2008 guidance versus the 2020 Rule. The department and stakeholders have developed a table to describe the differences and reached consensus on its content.

In addition, this white paper includes a discussion of agricultural exemptions included in the 2020 rule and in federal statute.

The department and stakeholders also discussed mapping WOTUS under the 2008 Guidance and the 2020 rule. There was consensus that such mapping would be prohibitively challenging given currently available data and technology. The most appropriate way to understand the differences between the 2008 Guidance and the 2020 Rule is through the tabular description approach.

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Section 1 Introduction

In 2020, the United States Environmental Protection Agency and the United States Army Corps of Engineers promulgated a new definition of “Waters of the United States” (WOTUS) through the Navigable Waters Protection Rule (the “2020 Rule”). In May 2020, Colorado filed suit in the District Court of Colorado against the federal government to challenge the Navigable Waters Protection Rule under the federal Administrative Procedure Act, the National Environmental Policy Act, and the Endangered Species Act. On May 28, 2020, Colorado filed a motion for a preliminary injunction, requesting that the federal court enjoin the effectiveness of the 2020 Rule in Colorado. On June 19, 2020, the District Court of Colorado granted the state’s motion and enjoined the rule. That ruling is now under appeal in the Tenth Circuit. As of the publication date of this white paper, the 1988 regulations and the 2008 Guidance¹ are the controlling legal definition of the waters of the United States in Colorado.

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The white paper includes the following sections:

- Section 2 Gap Waters
- Section 3 Agricultural Exemptions
- Section 4 Mapping of Gap Waters
- Section 5 Conclusions

Section 2 Gap Waters

This section provides a summary of discussions that the department held with stakeholders regarding how to describe the subset of state waters that may no longer have federal dredge and fill permitting protection if the 2020 Rule were implemented in Colorado.

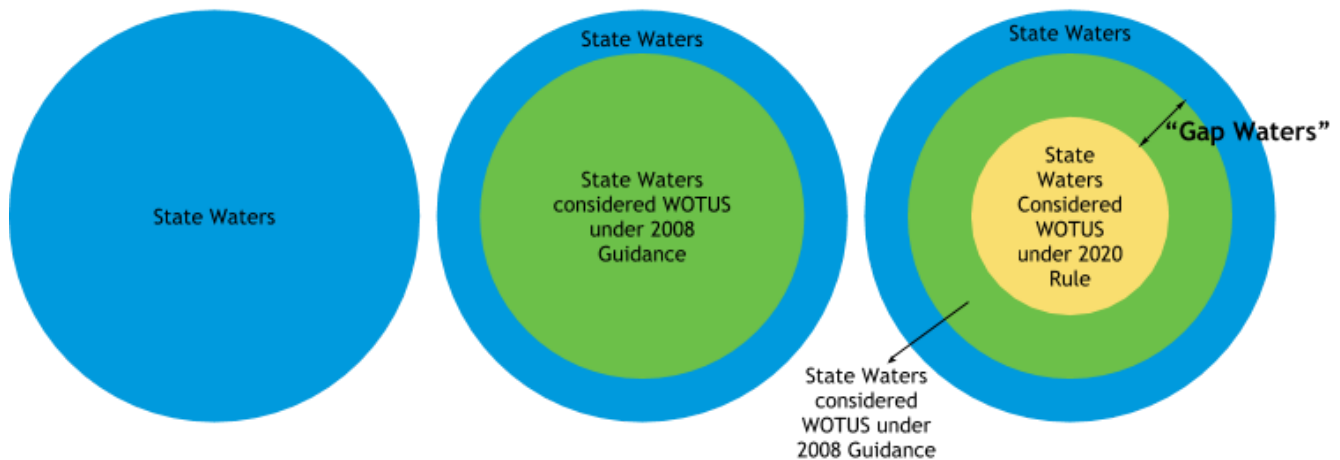
2.1 Description of Gap Waters

An illustrative example of gap waters is shown in Figure 1. It shows that not all of Colorado’s state waters (blue circle) are considered WOTUS under the 2008 Guidance and these waters are illustrated as the green circle in Figure 1. The number of state waters that will be considered WOTUS under the 2020 Rule (yellow circle) is less than those considered WOTUS under the 2008 Guidance (green circle). The difference between the green circle (state waters considered WOTUS under the 2008

¹ EPA’s *Clean Water Act Jurisdiction Following the Supreme Court Decision in Rapanos v. United States and Carabell v. United States* guidance document

Guidance) and the yellow circle (state waters considered WOTUS under the 2020 Rule) are the “gap waters.”

Figure 1 Illustration of “Gap Waters”



2.2 Gap Water Table

The gap waters table (Table 1, below), was developed to describe the subset of state waters that may no longer have federal dredge and fill permitting protection if the 2020 Rule were implemented in Colorado. Table 1 was developed based on stakeholder input and represents a consensus product developed through several meetings with participants. The terms used in the table are derived from the 2008 Guidance and the 2020 Rule. The table summarizes the differences between the two documents but does not replace the more in-depth discussion of the applicability and terms contained within the 2008 Guidance and 2020 Rule. A reference section of terms is included as Section 2.2.1 following the table, to simplify reference back to these two documents.

The descriptions in Table 1 apply the same approach as both the 2008 Guidance and 2020 Rule by categorizing waters as either traditional navigable water, a tributary, or a wetland. Tributaries encompass a wide variety of water bodies, including but not limited to streams, lakes, ponds, and human-made or altered waters like ditches and impoundments.

Table 1 includes three columns that identify how waters would be addressed if the 2020 Rule were to go into effect in Colorado: a state water that is covered under the federal program either as a WOTUS under the 2020 Rule or by federal permitting of non-WOTUS (Column A); a “gap water” that would have been regulated as a WOTUS under the 2008 Guidance but not under the 2020 Rule (Column B); or state waters that have never been covered under the federal dredge and fill program (Column C). The best way to understand the table is to review it from left to right (Column A to C). The first step is to determine if a state water meets the criteria identified by a cell in Column A, and if it does, it would not be categorized under a cell in either Column B or C. Likewise, a state water that meets the criteria for a cell in Column B would not also meet the criteria for a cell in Column C.

Cell A.1 is a unique category in the table because unlike other cells it is not identifying criteria to categorize a type of state water. Instead, Cell A.1 identifies an alternative approach to regulating waters that may or may not actually be WOTUS under the 2020 Rule. The cell recognizes that a 404 permit may be issued for a state water that would not meet the criteria for WOTUS in the 2020 Rule through the preliminary jurisdictional determination process. In this case, a state water that would otherwise be categorized under Column B or C would instead be categorized under Column A and federally regulated.

Although the table does refer to ephemeral streams, the term is not defined and is only for reference since it is a commonly understood way to reference streams that flow as a response to precipitation. Apart from that, the table relies on the defined terms used in the 2008 Guidance and 2020 Rule to categorize tributaries. The 2020 Rule categorizes tributaries as either “perennial” or not, based on a definition in the rule. The 2008 Guidance instead relies on the concept of “relatively permanent,” which in general identifies tributaries with at least seasonal flows. Refer to Section 2.2.1 below for more discussion of these terms relative to their use in the table. Section 2.2.2 includes a discussion of municipal separate storm sewer systems (MS4s) as they relate to Table 1.

Table 1 and the discussion throughout the remainder of this section addresses ditches, but this white paper does not attempt to define this term. The discussion of ditches is included to highlight human-made or altered conveyances, which fall into the regulatory frameworks set up by the 2008 Guidance and the 2020 Rule.

Table 1 Gap waters description

A	B	C
Federally Covered Waters <i>Waters that are covered under the 2020 Rule</i>	Gap Waters <i>Waters that fall between the 2008 Guidance and the 2020 Rule</i>	Waters Not Covered by Either Federal Programs or Gap Waters <i>Waters that do not meet the 2008 Guidance</i>
A.1 Waters with an effective 404 permit where the feds consider the 404 permit enforceable. ²	B.1 Tributaries that meet the 2008 Guidance definition of “relatively permanent” that are no longer considered WOTUS because they do not meet the 2020 Rule for contributing flow to permanent waters during a typical year. These are expected to primarily be ephemeral tributaries but may also include intermittent tributaries.	C.1 Tributaries that do not meet the 2008 Guidance definition of “relatively permanent” and that do not have a “significant nexus.” These are expected to primarily be ephemeral tributaries but may also include intermittent tributaries.

² Note that 404 coverage could be for a water identified in Column B (gap waters) and therefore allow for federal coverage instead of state coverage. If a 404 permit was in effect, it is possible that protection could be provided through state enforcement of the permit even if the federal government considered the permit not enforceable.

Table 1 Gap waters description (continued)

A	B	C
Federally Covered Waters <i>Waters that are covered under the 2020 Rule</i>	Gap Waters <i>Waters that fall between the 2008 Guidance and the 2020 Rule</i>	Waters Not Covered by Either Federal Programs or Gap Waters <i>Waters that do not meet the 2008 Guidance</i>
A.2 Traditional navigable waters.	B.2. Tributaries that do not meet the 2008 Guidance definition of “relatively permanent,” but do have a “significant nexus.” These are expected to primarily be ephemeral tributaries but may also include intermittent tributaries.	C.2 Wetlands that are both: <ul style="list-style-type: none"> ● Not adjacent to either a navigable water or a tributary that meets the 2008 Guidance definition of “relatively permanent.” ● Without “significant nexus.”
A.3 Tributaries, including some ditches, that qualify as perennial or intermittent tributaries under the Navigable Waters Protection Rule.	B.3 Tributaries that are human-altered, or human-made water bodies that carry flow directly or indirectly into a traditional navigable water and either 1) do not qualify as jurisdiction waters under the Navigable Waters Protection Rule but would if they were natural, or 2) meet one of the other criteria in Column B of this table as a gap water.	C.3 Swales or erosional features.
A.4 Wetlands that are adjacent (per the 2020 Rule) to traditional navigable waters and/or tributaries that qualify as perennial or intermittent tributaries under the Navigable Waters Protection Rule.	B.4 Wetlands that meet the 2008 Guidance criteria of abutting or being adjacent to a WOTUS under the 2020 Rule, but are not themselves a WOTUS under the 2020 Rule because they do not meet the 2020 Rule’s criteria for being abutting or an adjacent wetland.	C.4 Groundwater.
	B.5 Wetlands that meet the 2008 Guidance criteria of abutting or being adjacent to tributaries identified in cell B.1.	C.5 Prior converted cropland per the 2020 Rule definition.
	B.6 Wetlands that are not abutting or adjacent (as defined in the 2008 Guidance) but do have a “significant nexus” as defined in the 2008 Guidance to either: <ul style="list-style-type: none"> ● A tributary identified in B.2. ● Federally covered tributaries in A.2-4. ● A traditionally navigable water. 	C.6 Stormwater control features (including MS4s) that convey, treat, infiltrate, or store stormwater runoff and are constructed or excavated in upland or in waters that are non-jurisdictional under the 2020 Rule. See section II.B.2.
	B.7 Ditches that meet the 2008 criteria for WOTUS, but not the 2020 Rule.	C.7 Ditches that would not have met the 2008 criteria for WOTUS.

Table 1 Gap waters description (continued)

A	B	C
Federally Covered Waters <i>Waters that are covered under the 2020 Rule</i>	Gap Waters <i>Waters that fall between the 2008 Guidance and the 2020 Rule</i>	Waters Not Covered by Either Federal Programs or Gap Waters <i>Waters that do not meet the 2008 Guidance</i>
		C.8 Water-filled depressions created in dry land incidental to construction activity, and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of WOTUS under the 2020 Rule (column A) or a gap water (column B).
		C.9 Diffuse stormwater runoff and directional sheet flow over uplands.
		C.10 Tributaries that are human-altered, or human-made water bodies that do not fall under cell B.3 and are not WOTUS under the 2020 Rule.
		C.11 Waters that are not state waters per Colorado statute because they are “waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.”

2.2.1 Definitions and Discussion of Terms in the Gap Waters Description Table

The terms discussed below do not contain the full regulatory/legal definition and are just provided to support the understanding of the table:

- **2008 Guidance:** [“Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in Rapanos v. United States & Carabell v. United States.”](#)
- **2020 Rule:** [Federal Register: “The Navigable Waters Protection Rule: Definition of “Waters of the United States”](#)
- **Abut:** The term is used in Table 1 consistent with the 2008 Guidance. Abut means having a continuous surface connection and is not separated by uplands, a berm, dike, or similar feature. Refer to Part 2, page 7 of the 2008 Guidance for a more robust discussion. A different definition is used in the 2020 Rule, but it is unclear if the interpretation or implementation would be different at this time.

- **Adjacent:** The term adjacent is defined differently in the 2008 EPA Guidance and the 2020 Rule. Without further EPA guidance, it is difficult to determine how the actual federal application of the 2020 Rule definition of adjacent may differ from the current application in Colorado based on the 2008 Guidance.
 - **Adjacent per the 2008 Guidance.** Adjacent means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes, and the like are adjacent wetlands. Note that a wetland does not need to abut or have a continuous surface connection to establish adjacency. Wetlands that are reasonably close, supporting the science-based inference that such wetlands have an ecological interconnection with jurisdictional waters, are considered adjacent. Refer to Part 1, page 5 of the 2008 Guidance for a more robust discussion.
 - **Adjacent per the 2020 Rule.** Per federal register 22251, “The final rule defines ‘adjacent wetlands’ as wetlands that abut a territorial sea or traditional navigable water, a tributary, or a lake, pond, or impoundment of a jurisdictional water; are inundated by flooding from a territorial sea or traditional navigable water, a tributary, or a lake, pond, or impoundment of a jurisdictional water in a typical year; are physically separated from a territorial sea or traditional navigable water, a tributary, or a lake, pond, or impoundment of a jurisdictional water only by a natural berm, bank, dune, or similar natural feature; or are physically separated from a territorial sea or traditional navigable water, a tributary, or a lake, pond, or impoundment of a jurisdictional water only by an artificial dike, barrier, or similar artificial structure so long as that structure allows for a direct hydrological surface connection to the territorial sea or traditional navigable water, tributary, or lake, pond, or impoundment of a jurisdictional water in a typical year, such as through a culvert, flood or tide gate, pump, or similar artificial feature. ‘‘Abut’’ means when a wetland touches a territorial sea, traditional navigable water, tributary, or lake, pond, or impoundment of a jurisdictional water at least at one point or side. An adjacent wetland is jurisdictional in its entirety when a road or similar artificial structure divides the wetland, as long as the structure allows for a direct hydrologic surface connection through or over that structure in a typical year.”
- **Ephemeral and Intermittent Streams:** The 2020 Rule attempts to define terms for both “intermittent” and “ephemeral.” The use of the terms in Table 1 is not based on these 2020 Rule definitions. The table instead relies on the term “relatively permanent” from the 2008 Guidance to identify the gap waters. Although the 2020 Rule provides protection for intermittent streams as defined in the rule, the way the definition of intermittent streams in the 2020 Rule is implemented by the federal government may not cover all waters that have historically been considered intermittent under the 2008 Guidance. Therefore, the identification of gap waters in the table references both intermittent and ephemeral streams as waters that may meet the definition of relatively permanent waters not covered by the 2020 Rule.
- **Relatively Permanent:** The 2008 Guidance differentiates tributaries based on if they are “relatively permanent” or not. Relatively permanent tributaries include perennial streams

that typically (e.g., except due to drought) flow year-round and intermittent streams that have a continuous flow at least seasonally (e.g., typically three months). Refer to Part 2, page 6 of the 2008 Guidance for a more robust discussion. Tributaries that are not “relatively permanent” include both ephemeral and intermittent streams that do not meet the flow criteria for relatively permanent (e.g., flow less than 3 months). The difference in the 2008 Guidance for evaluating these two types of tributaries is that relatively permanent waters are automatically jurisdictional, while tributaries that do not meet the criteria must have a “significant nexus” to be determined jurisdictional.

- **Significant Nexus:** The concept of “significant nexus” is reflected in the U.S. Supreme Court’s opinion in *United States v. Rapanos*, as discussed in the 2008 Guidance memo. A water with a “significant nexus” is one that can significantly affect the chemical, physical, and biological integrity of other covered waters. Waters would not be determined to have a significant nexus, and therefore not gap waters, when effects on water quality are speculative or insubstantial. When a tributary and its adjacent wetlands collectively have a significant nexus with traditional navigable waters, the tributary and all of its adjacent wetlands would then be jurisdictional per the 2008 Guidance and therefore are gap waters in this proposal. As discussed in the 2008 Guidance, “Application of the significant nexus standard in this way is reasonable because of its strong scientific foundation – that is, the integral ecological relationship between a tributary and its adjacent wetlands. Interpreting the phrase “similarly situated” to include all wetlands adjacent to the same tributary is reasonable because such wetlands are physically located in a like manner (i.e., lying adjacent to the same tributary).” Refer to the 2008 Guidance for a more robust discussion, primarily Part 3 starting on page 8.
- **Tributary:** A tributary includes natural, man-altered, or man-made water bodies that carry flow directly or indirectly into a traditional navigable water. Refer to Part 2, page 6 in the 2008 Guidance for a more robust discussion.

2.2.2 MS4s and Stormwater Collection Systems/Control Features

The 2008 Guidance does not directly address stormwater collection systems and control features, including NPDES permitted municipal separate storm sewer systems (MS4s). However, the 2008 Guidance includes direction on when ditches and other human-made or -altered features are considered to be WOTUS, and this guidance is generally applicable to these stormwater features. The 2020 Rule is more direct in stating that it does not exempt all waters that are part of stormwater collection systems, including MS4s. Within the supplementary information to the rule, the federal government states:

“The agencies recognize that highly engineered municipal separate storm sewer systems (MS4s) that may have replaced natural drainage features may therefore have jurisdictional waters within their systems, but this does not represent a change from longstanding practice. For example, the Los Angeles River is a traditional navigable water highly engineered for stormwater control, and it still meets the requirements of a paragraph (a)(1) water. Regarding comments related to defining the term “stormwater control features,” the agencies do not name specific stormwater control features that would fall under the stormwater control feature exclusion, as they do not want the final rule to be perceived as limiting the exclusion, particularly given

differences among regional naming conventions and the likelihood that technologies and nomenclature will evolve in the future.”

Table 1 reflects that the 2008 and 2020 rule are consistent with respect to stormwater control features. Because MS4 outfalls are identified at the point of entering a stream or lake, this would exempt almost all portions of these systems except for unusual scenarios, like the federal example of the Los Angeles River, which was previously WOTUS. The reference to “non-jurisdictional waters” in the exemption would need to be modified to match state terminology.

Section 3 Agricultural Exemptions

As noted in Table 1, prior converted cropland is excluded in both the 2008 guidance and the 2020 Rule. However, the 2020 Rule included a more detailed definition and additional clarity in the preamble. The 2020 Rule states (Federal Register 22339):

“The term prior converted cropland means any area that, prior to December 23, 1985, was drained or otherwise manipulated for the purpose, or having the effect, of making production of an agricultural product possible. EPA and the Corps will recognize designations of prior converted cropland made by the Secretary of Agriculture. An area is no longer considered prior converted cropland for purposes of the Clean Water Act when the area is abandoned and has reverted to wetlands. Abandonment occurs when prior converted cropland is not used for, or in support of, agricultural purposes at least once in the immediately preceding five years. Agricultural purposes include land use that makes the production of an agricultural product possible, including, but not limited to, grazing and haying. Cropland that is left idle or fallow for conservation or agricultural purposes for any period of time remains in agricultural use, and, therefore, maintains the prior converted cropland exclusion.”

Also, 33 U.S.C. § 1344(f) establishes federal exemptions from permitting for normal farming, silviculture, and ranching activities (e.g., plowing, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices); construction or maintenance of farm or stock ponds or irrigation ditches, or maintenance of drainage ditches; and construction or maintenance of farm roads or forest roads. Therefore, these activities are exempt under both the federal program under the 2008 Guidance and the 2020 Rule.

Section 4 Mapping of Gap Waters

The department and stakeholders have had numerous discussions regarding the mapping of “gap waters.” These discussions have focused on two concepts:

- Mapping of gap waters to assess their scope and scale for informational purposes.
- Detailed mapping of gap waters that could be utilized in regulatory decision making.

Currently, the best available hydrographic mapping resources, the United States Geological Survey’s National Hydrography Dataset and United States Fish and Wildlife Service’s National Wetlands Inventory, do not provide sufficient information to illustrate waters of the United States under the

2008 Guidance or new 2020 Rule. These tools have limitations that prevent use for accurately mapping the scope of jurisdictional waters, including:

- Misclassification of stream flow permanence, particularly in headwaters, and inconsistent mapping in different parts of the country.
- Errors of omission (e.g., failure to map streams or wetlands that exist on the ground).
- Errors of commission (e.g., mapping streams or wetlands that do not exist on the ground), and potentially inaccurate stream or wetland boundary identification.

Ephemeral and intermittent streams under the 2008 Guidance are not considered a WOTUS if they are non-navigable, non-relatively permanent, and do not have a significant nexus to a traditional navigable water. These determinations are made on a case-by-case basis and typically require on-site verification.

Under the [2020 Rule](#), the Corps did not develop maps or new resources to identify waters that would be considered WOTUS. This rule grants federal jurisdiction to tributaries only if they: (i) exhibit relatively permanent geographic features; (ii) contribute surface flow to a traditional navigable water in a “typical year”; and (iii) do not flow to any ephemeral features. All ephemeral waters, regardless of their connection to downstream waters, are excluded, and any intermittent waters upstream of such ephemeral waters are also excluded. A “typical year” is defined in the 2020 Rule to mean within the normal range of precipitation over a rolling thirty-year period for a particular geographic area, and the Corps or EPA have not codified specific tools or resources in the regulation to determine a typical year.

Based on discussions with the stakeholder group, there is consensus that, given existing tools, it is not currently possible to develop a detailed mapping of gap waters. However, Trout Unlimited and The Nature Conservancy are engaged in ongoing mapping efforts that may help stakeholders understand the scope and scale of gap waters, and the department is engaged in those efforts.

In conclusion, mapping of WOTUS under the 2008 Guidance or the 2020 Rule in sufficient enough detail to make a jurisdictional determination without further field verification would be incredibly difficult and is beyond currently available methods and technology. Mapping of WOTUS under the 2008 Guidance or the 2020 Rule to better understand the differences between their scope and scale to assist in planning efforts may be possible. The level of effort to conduct this mapping is unknown. The department is engaged in discussions about this type of mapping.

Section 5 Conclusions

Based on discussions with stakeholders, the department has concluded that the most appropriate way to understand the differences between the 2008 Guidance and the 2020 Rule is through a tabular description. The department and stakeholders developed Table 1, the gap waters description table, to describe the differences and reached consensus on its content. There was consensus that mapping these gap waters would be prohibitively challenging given currently available data and technology. An additional narrative description of the federal agricultural exemptions applicable to WOTUS determinations was also developed.

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The department appreciates the efforts of stakeholders to have a collaborative and productive dialogue about these issues and knows that this work will be helpful in future discussions. The department thanks stakeholders for their time and participation.