National Cattlemen's Beef Association

PUBLIC LANDS COUNCIL

April 15, 2019

Hon. Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Hon. R.D. James
Assistant Secretary (Civil Works)
Department of the Army
441 G Street, NW
Washington, D.C. 20314

Docket ID No. EPA–HQ–OW–2018–0149
Submitted via *Regulations.gov*

Comments of the National Cattlemen's Beef Association on the Environmental Protection Agency and U.S. Army Corps of Engineers' Proposed Rule, Revised Definition "Waters of the United States" Docket ID: EPA–HQ–OW–2018–0149

The National Cattlemen's Beef Association (NCBA), Public Lands Council (PLC), and undersigned affiliates appreciate the opportunity to comment on the Environmental Protection Agency's (EPA) and U.S. Army Corps of Engineers' (Army Corps) proposed rule to revise the definition of "Waters of the United States", as applied under the Clean Water Act (the Revised Definition). NCBA is the nation's largest and oldest trade association representing American cattle producers, with over 25,000 direct members and 44 state affiliate associations. PLC is the only national trade association that represents the over 22,000 western ranchers who hold federal grazing permits and operate on federal public lands. NCBA and PLC commend the work done by EPA and Army Corps (The Agencies) following President Trump's Executive Order 13778. America's cattlemen need an easy-to-understand "Waters of the United States" (WOTUS) definition that allows for straightforward implementation, and the Agencies have taken significant strides toward achieving this goal.

The Clean Water Act (CWA or the Act) impacts all segments of the beef supply chain. Ranchers across the country send their cattle to graze on pastures or rangeland with ephemeral streambeds and water their cattle using stock ponds. Animal feeding operations are frequently permitted under the CWA as point sources and integrate waste treatment systems to effectively manage manure. Most American cattle producers are multi-generational, having dealt with every iteration of CWA jurisdiction since its passage in 1972. After nearly 50 years of jurisdictional tug-of-war between the Supreme Court and the Agencies, regulated stakeholders want nothing more than consistency in the Act's application. In the final rule, cattle producers need a practical and interpretable WOTUS definition.

NCBA and PLC generally support the Revised Definition and offer specific recommendations for improvement. The Associations commend EPA and Army Corps for closely following the Congressional intent of the CWA and subsequent Supreme Court decisions by excluding

ephemeral features from jurisdiction and tailoring federal wetlands jurisdiction. However, as the Agencies move toward finalizing the Revised Definition, NCBA and PLC urge the Agencies to provide greater clarity to regulated stakeholders – those who will interpret and implement the Revised Definition on a daily basis. By making two essential modifications to the Revised Definition, the Agencies can significantly increase the final rule's on-the-ground effectiveness. NCBA and PLC ask that the Agencies eliminate the "certain ditches" category of jurisdictional waters from the final rule and refine the "intermittent" definition. These key sections are the linchpin of the Revised Definition's long-term success.

Impact of WOTUS on American Cattle Producers

In the United States, cattle graze on nearly 654 million acres – over one-third of the nation's continental landmass.[1] As the country's largest collective landowner, America's cattle producers stand to lose the most from either a vague regulatory scheme or a WOTUS definition that attempts to combat clarity issues with overbroad categorical jurisdiction. An expansive WOTUS definition impacts America's cattle-raising population disproportionately, potentially leaving less grazable land available for productive and sustainable use.

In litigating the legality of the 2015 Rule, Jim Chilton, an Arizona Rancher, submitted a declaration to the Sixth Circuit Court of Appeals detailing his experience with the Army Corps of Engineers.[2] Mr. Chilton began consultations to obtain a CWA 404 permit to build a bridge over a dry wash on his ranch in southern Arizona. However, the costs of obtaining the permit, together with the time-consuming Jurisdictional Determination (JD) process left Mr. Chilton to abandon the bridge project and the dry wash on his property. This is just one example of the thousands of landowners across the country who are impacted by the definition of WOTUS, even though their economic loss is not seen in the form of a positive JD. Agricultural producers, in particular, often abandon 404 projects in light of the heightened cost and time commitment associated with the Army Corps' arduous permitting process. Abandonment of a permit process does not diminish the WOTUS definition's impact. If anything, the WOTUS definition has a heightened effect on cattle producers and other small businesses that lack the necessary liquid assets to obtain a 404 permit.

Cattle ranchers and feeders need a clear definition of WOTUS that will allow them to assess whether they have a federally jurisdictional water on their property without spending limited resources to hire outside consultants and hydrologists. The Revised Definition, as proposed by the Agencies, carries considerable risks for stakeholders who want nothing more than a rule that can be easily understood and implemented. By finalizing a WOTUS definition that includes highly technical standards like the proposed "typical year", the Agencies potentially deny landowners the right to fully enjoy their property. The majority of America's cattle producers are small businesses, operating with little cash on hand. Ensuring that any definition of WOTUS does not disproportionately impair small entities is key in considering its overall long-term impact. NCBA and PLC offer revisions to the Agencies' proposal that will level the playing field for CWA

[1] Dave Merrill and Lauren Leatherby, *Here's How America Uses Its Land*, (citing U.S. Dept. of Agric. Major Land Uses – Total Land, 1945-2012 document), https://www.bloomberg.com/graphics/2018-us-land-use/.
[2] *American Farm Bureau Fed'n, et al v. EPA, et al*., 15-3850, 6th Cir. Ct. App. (terminated 2/28/2018) (declaration of Jim Chilton).

regulatory compliance, ensuring that small and large businesses alike can effectively understand the Act's jurisdictional limitations.

NCBA and PLC support the Agencies' effort to repeal the 2015 WOTUS definition (2015 Rule). The 2015 Rule illegally stretched the federal government's authority, attempting to claim jurisdiction over features regardless of their flow frequency or source. Additionally, the rule would have limited cattle producers' ability to implement vital USDA-NRCS voluntary conservation practices. The outcome of the 2015 Rule was far from Congress' intent in enacting the Clean Water Act, rather, it cut against the statute's explicit cooperative federalism approach.

Previous Engagement in the WOTUS Rulemakings and Litigation

NCBA and PLC vigorously defend the property rights of cattle producers in all areas of government and has been heavily engaged to ensure that the CWA's WOTUS definition is not illegally expanded. NCBA and PLC engaged in the Agencies' previous attempt to define WOTUS, submitting comments and engaging in stakeholder outreach opportunities.[3] Upon finalization of the 2015 Rule, NCBA and PLC joined a group of trade associations to fight the 2015 Rule in court. The litigation is ongoing. Three federal district courts across the nation placed preliminary injunctions on the 2015 Rule's implementation, signaling a high likelihood of illegality. NCBA and PLC filed comments in support of the Agencies' 2017 proposal to rescind the Clean Water Rule, as well as the Agencies' 2018 Supplemental Notice.[4]

In addition to the Associations' opposition to the 2015 Rule, NCBA and PLC make clear their support for a WOTUS definition that, above all else, provides much-needed clarity to cattle producers. NCBA and PLC conveyed this message through comments to the Agencies during EPA's 2017 Stakeholder Tour, EPA's November-December 2017 WOTUS Listening Session[5], EPA's February 2019 WOTUS Listening Session in Kansas City, Missouri, and the Agencies' WOTUS Small Entities Listening Session on March 19, 2019 in Washington, D.C.

Proposed Categories of Jurisdictional Waters

Generally, NCBA and PLC support finalization of the Revised Definition and acknowledge that this proposal is a significant improvement from the 2015 Rule or other prior guidance. However, below, NCBA and PLC provide specific recommendations for simple adjustments that will make the final rule easier to understand and apply for both regulators and stakeholders. In the end, the Revised Definition must draw a clear line between jurisdictional and non-jurisdictional waters, and the Associations' recommendations move the proposal toward achieving this goal.

NCBA and PLC support the Agencies' position that the burden of proving a jurisdictional water or adjacent wetland exists lies with the regulating agency. However, NCBA and PLC hope to see additional clarification in the final rule regarding the methods employed to satisfy this burden.

---

[3] National Cattlemen's Beef Association to Ken Kopocis and Jo Ellen Darcy. Oct. 28, 2014. Docket ID EPA-HQ-OW-2011-0880-10183, available at https://www.regulations.gov/document?D=EPA-HQ-OW-2011-0880-10183.

[4] National Cattlemen's Beef Association to Hon. Scott Pruitt. Sept. 26, 2017. Docket ID EPA-HQ-OW-2017-0203-9330, available at https://www.regulations.gov/document?D=EPA-HQ-OW-2017-0203-9330.

[5] National Cattlemen's Beef Association to Hon. Scott Pruitt. Nov. 28, 2017. Docket ID EPA-HQ-OW-2-17-0480-0441, available at https://www.regulations.gov/document?D=EPA-HQ-OW-2017-0480-0441.

Specifically, NCBA and PLC oppose the use of aerial photography or satellite images to satisfy jurisdictional burdens.

(a)(1) Traditional Navigable Waters and Territorial Seas

The foundation of the Revised Definition is the traditional navigable waters (TNW) definition, constituting the (a)(1) category. Every other jurisdictional category depends on connection to an (a)(1) water, thus the impact of the jurisdictional definition can be multiplied, or curbed, by the breadth of the (a)(1) waters definition. The proposed revisions to the (a)(1) category align with Congressional intent, constitutionally rooted in the Commerce Clause. The Supreme Court considered the extent to which the Commerce Clause applies to federal waters in *The Daniel Ball v. United States* and held that waters are jurisdictional when they are (1) navigable-in-fact and (2) together with other waters, form waterborne highways used to transport commercial goods in interstate or foreign commerce.[6] A waterbody is navigable-in-fact when it is used or susceptible to use in its ordinary condition as a highway for commerce over which trade and travel are or may be conducted in the customary modes of trade and travel on water.[7]

Considering *The Daniel Ball* and the body of Supreme Court cases that followed, the Agencies correctly conclude that interstate waters are not those that necessarily cross state boundaries, but those that are, or can be, used for interstate commerce. NCBA and PLC support the Agencies' removal of "interstate waters" from the list of categorically jurisdictional waters. NCBA and PLC support the Revised Definition's elimination of the "interstate waters" category. Because the TNW category must be grounded in interstate commerce, the waters regulated as such must be limited to that purpose. The Commerce Clause considers the function of waters as a tool, not their mere existence. Simply because a water or wetland crosses state boundaries does not instantly qualify it for federal jurisdiction. Only if a water can support the transportation of interstate commerce should it be regulated as an (a)(1) water.

In considering which waters fall into the (a)(1) category, NCBA and PLC recognize that the Agencies look to precedent beyond *The Daniel Ball*.[8] However, this precedent in no way provides a rationale for waters used only for recreation to reach the threshold of an (a)(1) water. In considering the extent to which navigability-in-fact extends, groups and individuals seeking to expand (a)(1) jurisdiction often look to two cases: *U.S. v. Appalachian Electric Power Company* and *U.S. v. Utah.*[9] However, neither case provides legal justification for the Agencies to extend the (a)(1) category to waters used solely for recreational purposes. The Supreme Court in *U.S. v. Appalachian Electric Power Company* held that lack of commercial traffic does not bar a conclusion of navigability "where personal or private use by boats demonstrates the availability of the stream for the simpler types of commercial navigation."[10] In reaching this conclusion, the Court cited its previous decision in *U.S. v. Utah,* referencing back to a case where the Court did not find the waterbody in question federally jurisdictional. In holding that personal traffic may be

[6] *The Daniel Ball v. United States*, 77 U.S. 557 at 563 (1870).
[7] Id. at 564.
[8] *See generally The Montello*, 87 U.S. 430 (1874); *U.S. v. Utah*, 283 U.S. 64 (1931); *U.S. v. Appalachian Elec. Power Co.*, 311 U.S. 377 (1940). *Utah v. United States*, 403 U.S. 9 (1971).
[9] *Appalachian Elec.*, 311 U.S. 377; *Utah*, 283 U.S. 64 (1931).
[10] *Appalachian Elec.*, 311 U.S. at 416.

used as a proxy for commercial traffic, the Court misinterpreted the *Utah* holding entirely.[11] Rather than find recreational use of a waterbody sufficient grounds for a navigability holding, the Court only stated that navigability is proven by capability. The *Appalachian Electric* court made an assumption that stretched the *Utah* court's holding beyond its original intent. The *Utah* court never stated, nor alluded to the concept that capability could be proven by the use of recreational vehicles. Later, in 1971, the Supreme Court considered another Utah-based navigability question.[12] *Utah* v. *United States* was a battle between the state of Utah and the federal government over the jurisdictional navigability of the Great Salt Lake. Ultimately, the Court held that the Lake was navigable, because a cattle producer used a small boat to haul cattle from an island in the middle of the Lake to the mainland.[13] In expanding the jurisdiction of navigable-in-fact waters beyond those that carry commercial traffic, the Supreme Court did not ignore the foundation of federal water regulation – whether it be the Rivers and Harbors Act or the Clean Water Act. The Commerce Clause was still at play and allowed the Court to expand jurisdiction to the Great Salt Lake because the cattle producer was transporting products for use in interstate commerce. Courts and agencies alike must distinguish the transportation of commercial products from noncommercial activities. By reading the *Appalachian Power* decision as permitting recreational vehicles to satisfy the standards of the Commerce Clause, the Agencies drastically misinterpret the *Utah* 1 Court's holding.

While NCBA and PLC generally support the Agencies' efforts, the (a)(1) waters definition reaches beyond Supreme Court precedent: "waters which are currently used, or were used in the past, or may be susceptible to use *in* interstate or foreign commerce." While use *in* commerce conveys only a passive use of the waterbody for interstate commerce, Supreme Court precedential language conveys that waters are navigable-in-fact when they are used *for* interstate commerce, implying that the water must be a tool for transportation. NCBA and PLC believe this can be remedied with a small change to the (a)(1) definition. By substituting "use in" with "use for" so that the phrase reads "susceptible to use for interstate or foreign commerce," the Agencies will ensure that the Revised Definition aligns with Supreme Court precedent.[14]

(a)(2) Tributaries

Above all else, the Agencies' top priority must be to ensure that any final WOTUS definition is in line with Congress' intent in passing the Clean Water Act. While all engaged parties agree that the term "waters of the United States" is inescapably vague, the Act contains other guiding principles that cannot be ignored. Congress states that the intent of the Act is to maintain the chemical, physical, and biological integrity of the nation's waters. To ensure that the Agencies follow this direction, the Agencies consider the best available science, as informed by Supreme Court precedent. The Revised Definition references the Connectivity Report's conclusion that contribution to downstream water quality occurs on a gradient. Some might wrongly interpret the Connectivity Report's gradient conclusion as a justification for endless case-by-case determinations. The Agencies must remember their primary role at the end of the day – using

[11] "The capability of use by the public for purposes of transportation and commerce affords the true criterion of the navigability of a river, rather than the extent and manner of that use." *Utah*, 238 U.S. at 82.
[12] *Utah v. United States,* 403 U.S. 9 (1971).
[13] *Id.*
[14] *See generally* 77 U.S. 557; 87 U.S. 430; 311 U.S. 377; 403 U.S. 9.

science as a baseline to establish a WOTUS definition within the confines of the established body of law.

i. The Agencies must define "surface water channel" to establish the (a)(2) category's parameters.

As the Agencies refine the Revised Definition, NCBA and PLC encourage staff to consider the value of defining "surface water channel." In previous rulemakings, NCBA and PLC opposed the use of physical indicators for jurisdictional purposes because they were employed without a necessary flow metric. At its foundation, a rule that sets jurisdictional boundaries for the federal government concerning water regulatory jurisdiction should consider where water actually flows. The 2015 Rule failed to take this important factor into account, requiring the existence of flow, but positing that flow could be demonstrated through the presence of physical indicators. Rather than keeping the two elements distinct, the Agencies instead propped one element on another, the result of which was only one element needing to be satisfied – the presence of physical indicators. Though different on its face, the Tributaries ((a)(2)) category of the Revised Definition puts regulated stakeholders in a similar predicament. Distinct consideration of both flow and physical indicators is necessary to determine the presence of a jurisdictional tributary, but the proposed (a)(2) definition fails to provide any standard for visible indicators. Fortunately, the problem has a simple solution, and the Associations believe that the (a)(2) category can be bolstered with visible indicators, just as the 2015 Rule could have been bolstered with a standalone flow requirement.

NCBA and PLC suggest the jurisdictional determination for (a)(2) waters be a two-step process. To find an (a)(2) water jurisdictional, regulators must show both (1) the existence of visible indicators *and* (2) satisfaction of the regulatory flow metric. Without distinct consideration of both visible indicators and flow, EPA will establish federal regulatory authority over areas like the one captured in Attachment (1), a drainage feature in the Rocky Mountain region.[15] NCBA and PLC suggest that the Agencies include the presence of a bed, banks, point bars, and cut banks as required visible indicators for jurisdictional tributaries, making clear that without these visible indicators, a jurisdictional tributary is not present. The most effective way to accomplish this task is by defining the term "surface water channel." Though the Agencies define an (a)(2) water as a "naturally occurring surface water channel," the Agencies take no effort to define this term. "Surface water channel" is a critical element of the definition and should be defined in the regulatory text. NCBA and PLC suggest the following definition:

> *Surface water channel.* The term surface water channel is the geographic feature in which surface water flows, as defined by a bed and banks. A surface water channel is accompanied by the physical features of point bars and cut banks where the flow of water turns directionally due to topographic change in elevation.

Webster's Dictionary defines "channel" as "the bed where a natural stream of water runs."[16] Further, the International Glossary of Hydrology (IGH) defines "channel" as a "clearly defined

[15] *See* Attachment (1).
[16] Webster's Dictionary, p. 245 (4th ed. 1999).

watercourse which periodically or continuously contains moving water."[17] The IGH defines "bank" as the "rising land bordering a river, usually to contain the stream within the wetted perimeter of the channel."[18] Point bars and cut banks are likewise suitable indicators of mature tributaries which contribute significantly to downstream water quality. These easy-to-identify characteristics would allow cattle producers to visually identify characteristics that are indicative of a surface water channel, as a "first cut" of determining the existence of a WOTUS. The NRCS WI Companion Document 580-5, "Stream Classification Using the Rosgen System" includes a helpful visual for point bars and cut banks.[19]

If visible indicators exist, regulators move on to determining whether the tributary meets the necessary flow metric. The flow metric is a standalone requirement, separate from physical indicators. A tributary should only be jurisdictional if it satisfies both the physical indicator and flow metric requirement. Both the flow metric and physical indicators are necessary to ensure that the federal government is regulating those water bodies that are contributing to downstream water quality and are more than "the merest trickle."[20]

ii. Ephemeral tributaries are properly excluded from federal jurisdiction.

The Revised Definition limits regulated (a)(2) waters to "channels that contribute perennial or intermittent flow" to an (a)(1) water. One of NCBA and PLC's largest contentions with the 2015 Rule was the Agencies' asserting jurisdiction over ephemeral features. The Agencies acknowledged concerns presented by the Scientific Advisory Board (SAB) in their 2014 letter regarding the categorical inclusion of all tributaries as jurisdictional waters, when the Connectivity Report clearly indicated a gradient of connectivity. The SAB recommended that ''the interpretation of connectivity be revised to reflect a gradient approach that recognizes variation in the frequency, duration, magnitude, predictability, and consequences of physical, chemical, and biological connections."[21] This gradient of connectivity ultimately means that tributaries with perennial or intermittent flow have a greater impact on downstream water quality than those which only flow following a precipitation event.

The Revised Definition defines ephemeral as "surface water flowing or pooling only in direct response to precipitation." The Agencies draw this definition from the Connectivity Report, which discusses ephemeral flow based on a high percentage of stormflow. NCBA and PLC appreciate efforts by the Agencies to exclude ephemeral tributaries from federal regulatory jurisdiction. The Revised Definition takes steps to exclude ephemeral features from the potential scope of jurisdictional waters, both by explicitly including "ephemeral features" as an exclusion from the Revised Definition, in addition to the (b)(1) catch-all exclusion. However, NCBA and PLC are concerned that the ephemeral exclusion could be interpreted to have limited application, based on

[17] U.N. Educational, Scientific, and Cultural Organization and World Meteorological Organization, *International Glossary of Hydrology*, ISBN 978-92-63-03385-8 at p. 60 (2012).
[18] *Id*. at 38.
[19] *See* Attachment (2).
[20] *Rapanos v. United States*, 547 U.S. 715 at 769 (2006) (Kennedy, J., concurring).
[21] Letter to Gina McCarthy. October 17, 2014. SAB Review of the Draft EPA Report *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*.

the Agencies' choice to include the term "direct." NCBA and PLC provide specific recommendations on this issue in the Exclusions section of our comments.

iii. The typical year standard, as proposed, is insufficient to provide a clear differentiation between intermittent and ephemeral tributaries.

As stated above, NCBA and PLC's principal concern with the 2015 Rule was the Agencies' attempt to assert jurisdiction over ephemeral features. The Associations appreciate the EPA and Army Corps' effort to correct this overreach, however, the typical year standard is vague at best, leaving stakeholders and regulators to consider on a case-by-case basis which features are excluded as ephemeral.

The Agencies define typical year as "within the normal range of precipitation over a rolling thirty-year period for a particular geographic area." This definition is tenuous and means little without some reference point. In other words, an action must occur at a certain frequency in a typical year, under certain conditions. The typical year standard, on its own, provides very little information. However, in the (a)(2) category, the typical year standard is anchored by the intermittent definition. In order for the typical year standard to work effectively, it must be tied to a concrete criterion. The Agencies make clear in the preamble that they intend to regulate only streams that flow in response to an elevated groundwater table or snowpack as intermittent tributaries. However, the definition of "intermittent" implies that these qualifiers are mere suggestions. By making clear that jurisdictional intermittent tributaries are limited to those streams that flow in response to groundwater table elevation or snowpack melt will go a long way to provide on the ground clarity for regulated stakeholders. Alternatively, an "e.g." list implies that the list is not exhaustive, leaving room for future regulators or field staff to make arbitrary jurisdictional decisions. Should the Agencies choose to retain the typical year standard, NCBA and PLC urge the Agencies to make groundwater table elevation or snowpack necessary qualifiers for federal jurisdiction. If the list is not exhaustive, NCBA and PLC request the Agencies establish an exhaustive list of qualifiers. Such a list is necessary for the typical year standard's success, as the intermittent definition will serve as the touchstone from which the typical year standard will function.

The Agencies state in preamble text that the phrase "'certain times during a typical year' is intended to include extended periods of predictable, continuous, seasonal surface flow occurring in the same geographic feature year after year." This language provides necessary criteria for the duration and frequency of water flow, in turn delivering much-needed specificity to the otherwise ambiguous typical year standard. But while NCBA and PLC support the Agencies' sentiment, this helpful concept has limited effect without mirrored language in the regulatory text. Upon finalization of the Revised Definition, regulators and regulated stakeholders will have no guidance as to the breadth of the typical year standard. The Agencies take for granted that this is a common term used among hydrology experts, all the while forgetting that experts will seldom be implementing this standard on a day-to-day basis. The solution is simple - incorporate a definition of "certain times" into the final rule, ensuring that these necessary criteria are included in the regulatory text:

> *Certain Times*. A frequency which is predictable, continuous, and seasonal.

Alternatively, NCBA and PLC suggest replacing "certain times" with "predictable, continuous, and seasonal periods." This is, perhaps, the most effective remedy. NCBA and PLC recognize that the Agencies must craft a rule which can be applied to all regions, however, it is imperative that the regulatory language of the Revised Definition clarify that intermittent flow occurs continuously and seasonally, as opposed to sporadically.

Beyond strengthening the intermittent tributary definition, NCBA and PLC urge the Agencies to provide additional context for the typical year standard itself. As discussed above, the effectiveness of the intermittent definition hinges on the clarity of the typical year definition (or lack thereof). This interconnected relationship means that making the typical year standard stronger will serve to improve the intermittent tributary category, as well. NCBA and PLC recommend strengthening the typical year definition with the following additions, drawn from the proposal's preamble:

> *Typical Year*. The term typical year means within the normal range of precipitation over a rolling thirty-year period for a particular geographic area. To exclude outlier seasons, the normal range will be considered the 30th to 70th percentile of three-month precipitation measurements taken by NOAA monitoring stations. A typical year generally does not include times of drought or extreme flooding.

NCBA and PLC support the Agencies' proposed adoption of a 30-year period for determination and proposes to maintain this. In defining "normal," the Agencies should require regulators to maintain the average flow in a given area (on a rolling 30-year basis). Although the preamble states that the Agencies do not intend to include the consideration of drought periods or extreme floods in the "normal range" determination, this language is not reflected in the Revised Definition. NCBA and PLC urge the Agencies to include this charge in the final rule. NCBA and PLC strongly support the Agencies' adoption of 30th and 70th percentiles as a measurement of "normal range" in the final rule as a means to eliminate periods of drought or extreme flooding. Periods of drought and extreme precipitation events occur in every watershed at some point and must be accounted for or would otherwise unreasonably skew jurisdictional standards. The Agencies state their desire to exclude "times of drought or extreme flooding" in the Revised Definition's preamble, but do not adequately transfer this intent to regulatory text. NCBA and PLC urge the Agencies to adopt the method in final regulatory text to increase clarity among regulated entities. Additionally, the Agencies solicit comment on the appropriate watershed scale for use in the geographic area as defined in a "typical year" of the Revised Definition. Specifically, the Agencies reference the utilization of hydrologic units, soliciting comments on which HUC (8,10, or 12) should be implemented. The Agencies provide no other background information on the HUC sequence in its supporting documents, and NCBA and PLC thus have insufficient information to provide a position on the sequence at this time.

NCBA and PLC's concerns regarding the typical year standard stretch beyond the (a)(2) category. Because intermittent flow is woven into other areas of jurisdiction, the ambiguity of the typical year standard impacts the Ditches, Lakes and Ponds, and Adjacent Wetlands category. Additionally, as implied above, the impact of the typical year standard bleeds into the Revised Definition's proposed exclusions. The typical year standard blurs the line between excluded ephemeral features and jurisdictional intermittent features. While NCBA and PLC are pleased with the Agencies' effort to exclude ephemeral features, the benefit of this exclusion is limited by the typical year standard's ambiguity.

iv. Should the Agencies consider alternative approaches to the (a)(2) category, NCBA and PLC recommend a 185 day per year flow metric.

Should the Agencies consider alternative approaches to the (a)(2) category, NCBA and PLC recommend the following definition for "tributary," in addition to providing necessary scientific justification from the Connectivity Report.

> (b)(11) *Tributary*:
>
> > (i) individually exhibit a bed and banks, continuous surface water flow for more than 185 days per year, are not solely dependent on a single hydrologic event, and flow into a water, territorial sea, or navigable-in-fact water,
> >
> > (A) The status of a tributary is not changed by an intervening structure (for example, an impoundment) that interrupts the flow or contribution of flow to a water, territorial sea, or navigable-in-fact water.

The purpose of requiring jurisdictional waters to have continuous surface water flow for 185 days per year is to set forth an easily determinable standard for "relatively permanent waters" as contemplated by the plurality in *Rapanos*. Justice Scalia, writing for the plurality, stated that jurisdiction under the Act is limited to "relatively permanent, standing or flowing bodies of water . . . [such as] continuously present, fixed bodies of water, as opposed to ordinarily dry channels through which water occasionally flows." Under this standard, "relatively continuous flow is a necessary condition for qualification as a 'water,' not an adequate condition." However, the Court intentionally left open the question of whether jurisdiction could be exerted over seasonal rivers, leaving it to the agency to draw the distinction between perennial and intermittent flows that satisfy the jurisdictional determination. NCBA and PLC propose a bright-line rule, which attempts to distinguish between intermittent streams that flow for most of the year, and the ephemeral streams specifically excluded by the plurality in *Rapanos*. Such a standard is supported by the Connectivity Report, all of the Justices' opinions in *Rapanos*, and the majority of Circuit Court decisions.

Flow duration classes are widely accepted classifications of waters based on flow frequency, magnitude, rate of flow, and duration of intermittency. The characteristics of various waterbodies set forth a spectrum of "hydrologic permanence," defined in the Connectivity Report as "[t]he frequency and duration of streamflow in channels or the frequency and duration of standing water in wetlands." Ephemeral and intermittent streams are distinguishable by the number of days with zero flow. Zero flow is defined as the number of days having zero discharge or the number of days where there is no measurable "volume of water that passes a given location over a period of time." Some scientific studies do not include "ephemeral streams" as a separate classification, choosing instead to further divide intermittent streams into subcategories based upon the frequency and duration of intermittency. For example, intermittent streams may be further classified as intermittent runoff, intermittent flashy, or harsh intermittent. In a study by Poff, harsh intermittent streams had an average of 190 days per year of zero flow.[22] The other two classifications (intermittent flashy and intermittent runoff) were classified based upon average intermittence average flood frequency. However, both groups had high numbers of zero flow days. It should be

[22] N. Leroy Poff, *A hydrogeography of unregulated streams in the United States and an examination of scale-dependence in some hydrological descriptors*, 36 FRESHWATER BIOLOGY 71-79 (1996).

noted that the "harsh intermittent" classification is similar to the Agencies' definition of ephemeral streams, which are streams that "flow […] only in direct response to precipitation."

NCBA and PLC's proposed definition of "tributary" comports with the plurality's opinion in *Rapanos* because it falls within Justice Scalia's requirement of continuous flow for at least "some months" out of the year. Requiring streams to have continuous flow for approximately half of the year, satisfies this requirement while allowing jurisdiction over waters that flow during wet seasons. Further, it establishes the much-needed line between intermittent streams from purely ephemeral streams.

(a)(3) Certain Ditches

For the first time, the Agencies set out to categorically regulate ditches as jurisdictional surface waters. This proposed category limits jurisdictional ditches to those with only perennial and intermittent contribution to an (a)(1) water that (1) are constructed in a tributary, (2) relocate a tributary, or are (3) constructed in an adjacent wetland. While NCBA and PLC appreciate the Agencies' attempt to narrow the zone of jurisdiction, there is a more effective way to accomplish the Agencies' goal. NCBA and PLC urge the Agencies to eliminate the "certain ditches ((a)(3))" category from the final rule. Further, similar to the (a)(2) category, NCBA and PLC urge the Agencies to explicitly exclude those ditches which do not satisfy jurisdictional requirements.

NCBA and PLC question the Agencies' use of the CWA 404(f) exemption as confirmation that Congress intended to regulate certain ditches as jurisdictional waters. Such a conclusion makes a limiting assumption as to the extent of the 404(f) exemption. In preamble language, the Agencies posit that ditches must be jurisdictional, otherwise the 404(f) exemption would be unwarranted. This is simply not the case. The 404(f) exemption is not limited to dredge and fill activities that occur in ditches, but rather dredge and fill activities that occur in any navigable water. The normal farming activities exemption statutorily allows unpermitted dredging and filling of a TNW, tributary, or wetland if that activity occurs in furtherance of normal farming activities. The 404(f) exemption carries no less weight if agricultural ditches are considered exclusively point sources under the CWA.

i. A standalone category for jurisdictional ditches is superfluous.

The (a)(3) category proposes to establish federal jurisdiction over ditches which are an (a)(1) water, are constructed in a tributary, relocate a tributary, or are constructed in a wetland. However, the regulatory text makes clear that any potential ditch must also satisfy the tributary definition. If this is the case, one must wonder why the Agencies established a wholly new category of jurisdictional waters, with the qualification that those waters first meet either the (a)(1) or (a)(2) definition. If the Agencies choose to regulate ditches at all, it would be most sensible to do so within the confines of the previously established jurisdictional categories. By plucking ditches from the (a)(1)-(2) category, the Agencies leave the (a)(3) category open to expansive interpretation in the future. While the Agencies state that they intend a narrow scope on the (a)(3) category, the fact that drafters of the rule thought it necessary to establish an entire category of jurisdictional waters for ditches will cut against this argument in the future. Especially vulnerable are the terms "relocate" and "alter," terms that may seem innocuous but whose meaning could easily be expanded beyond recognition in a court challenge.

Ditches that satisfy the conditions of the (a)(1) category are subject to regulation, not as an (a)(3) water, but as an (a)(1) water. This distinction is unnecessary and will likely create confusion for regulated stakeholders upon finalization. The Agencies' assertion in the preamble that the Erie canal or LA River are technically ditches deserving a standalone jurisdictional category is beyond reason. The Agencies may assert jurisdiction over these waterbodies without establishing the proposed standalone category, as they have for decades.

Ditches that relocate an (a)(2) water, alter an (a)(2) water, or are constructed in an adjacent wetland to an (a)(2) water can easily be included in the (a)(2) category without establishing an entire category for their jurisdiction. While jurisdictional tributaries and ditches may differ in origin, the practical differences are few. Any benefit of having a standalone jurisdictional category for certain ditches is far outweighed by the costs in confusion among stakeholders.

In addition to the stated recommendations, NCBA and PLC make additional recommendations below regarding the Agencies' treatment of ditches in the Exclusions section.

(a)(4) Certain Lakes and Ponds

NCBA and PLC question the value of the Lakes and Ponds ((a)(4)) category, specifically whether such a category aligns with Congressional intent. Any (a)(4) waterbody which Congress intended to protect under the CWA will be jurisdictional as an (a)(1) water. NCBA and PLC particularly struggle with the Agencies' assertion of jurisdiction over lakes or ponds that are flooded by an (a)(1)-(3) water and posits that this directly conflicts with the intent of the CWA.

i. Only lakes and ponds that qualify as (a)(1) waters should be deemed federally jurisdictional.

In 1931, the Supreme Court considered federal jurisdiction over the Great Salt Lake.[23] It struggled with this question, and ultimately found that the Lake was subject to federal jurisdiction because a rancher transported cattle from a small island in the middle of the Lake to the mainland. The Great Salt Lake was subject to federal jurisdiction because of the role it played in interstate commerce. While NCBA and PLC acknowledge that *U.S. v. Utah* was decided prior to the CWA's enactment, it does not change the Act's constitutional grounding in the Commerce Clause, nor does it alter Congress' intent to protect and improve downstream water quality. Unless a waterbody is traditionally navigable in its own right, an isolated lake or pond is not susceptible to use for interstate commerce, and thus should not receive the protections of the CWA.

ii. The Agencies have no grounding to assert jurisdiction over lakes and ponds flooded by (a)(1)-(3) waters.

NCBA and PLC are specifically concerned about the Agencies' assertion of jurisdiction over lakes and ponds flooded by (a)(1)-(3) waters in a typical year. In addition to regulating lakes and ponds that satisfy the (a)(1) category and contribute perennial or intermittent flow to an (a)(1) water, the Revised Definition claims jurisdiction over lake and ponds that are flooded by an (a)(1)-(5) water in a typical year. This jurisdictional reach attempts to apply the typical year standard in a way used differently from other categories in the Revised Definition. Every other use of the typical year

[23] *Utah v. United States*, 403 U.S. 9 (1971).

standard is coupled with an intermittent flow requirement. In fact, the (a)(4) category is the only section in the regulatory text where the Agencies mention typical year beyond section (c). Above, NCBA and PLC make the argument that the typical year standard is ambiguous but provides suggestions to provide clarity by strengthening the "intermittent" definition. While the typical year standard is unclear on its own, it can be made practical and implementable with well-established guideposts. The intermittent definition serves as the necessary guidepost. However, the (a)(4) category has no similar buffer, subjecting lakes and ponds to the typical year standard without a reference point. Considering the typical year standard without a reference point leaves all interested parties, regulators and regulated, to play a jurisdictional guessing game.

The term "flooding" suggests that the areas potentially subject to federal jurisdiction are isolated, but for a precipitation event. This inclusion differs from the jurisdictional line drawn for tributaries (ephemeral features, fed only by precipitation, are excluded from regulation). The Connectivity Report specifically considers oxbow lakes. An oxbow lake forms due to (1) a flood or (2) change in the stream course, creating a free-standing body of water.[24] These isolated waterbodies have a hydrologic connection to an (a)(1) or (a)(2) water only when they flood. Otherwise, these lakes and ponds stand unconnected to the stream network in question. The Agencies provide no rationale to assert jurisdiction over such features, while rightly excluding other features that flow in response to flooding (namely, ephemeral features). Indeed, the Revised Definition's exclusion of ephemerals strongly suggests that lakes and ponds connected only during times of flooding should also be excluded. Therefore, the NCBA and PLC recommend that EPA eliminate jurisdiction over lakes and ponds that do not satisfy the (a)(1) standard.

(a)(6) Adjacent Wetlands

NCBA and PLC commend the Agencies' diligent work in defining adjacent wetlands to jurisdictional waters ((a)(6)). By limiting jurisdictional adjacent wetlands to those that (1) abut or (2) have a direct hydrological surface connection to a jurisdictional water, the Agencies follow Supreme Court precedent while ensuring that wetlands vital to downstream water quality are protected. This standard is in line with the precedent set by *Riverside Bayview, SWANCC,* and *Rapanos*.[25] NCBA and PLC provide one recommendation for the Agencies to further clarify the (a)(6) definition.

i. The (a)(6) category aligns with Supreme Court precedent.

As the Agencies look to the Supreme Court for guidance, they perhaps receive the most pointed direction when it comes to wetlands jurisdiction. Every seminal CWA case that has come before the Supreme Court dealt with wetland jurisdiction in some form. *Riverside Bayview* first required the Court to consider the breadth of the Act's jurisdiction, ultimately leading to affirmation of the Army Corps' position that wetlands which are "inseparably bound up" in navigable waters are also subject to federal protection under the CWA.[26] However, this federal protection was narrowed by

[24] U.S. EPA. *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of Scientific Evidence (Final Report).* U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-14/475F, 2015.
[25] *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985); *SWANCC v. United States Army Corps of Eng'Rs*, 531 U.S. 159 (2001); *Rapanos v. United States*, 547 U.S. 715 (2006).
[26] *Riverside Bayview*, 474 U.S. 121.

the Court's holding in *SWANCC*, when it determined that use of a waterbody or wetland by migratory birds was insufficient for CWA regulation.[27] The Migratory Bird Rule expanded the Agencies' jurisdiction to wetlands and waterbodies far beyond those that were merely adjacent, to isolated ponds and wetlands.[28] The *Riverside Bayview* and *SWANCC* courts provided an answer, yet courts across the nation continued to grapple with the question – where does the CWA draw the jurisdictional line for wetlands? The answer was finally made clear by the *Rapanos* plurality, only those wetlands with a continuous surface connection to jurisdictional surface waters may be regulated under the CWA. The 2015 Rule included numeric distance limitations that allowed the Agencies to potentially regulate wetlands within 4,000 feet of TNWs and their tributaries. Such a standard would have gone far beyond the *Riverside Bayview* or *Rapanos* precedents. NCBA and PLC support the Agencies' decision to adopt a bright-line jurisdictional standard, rather than the standard finalized in the 2015 Rule.

ii. The Agencies must further define "direct hydrologic surface connection."

As the Agencies look to shore up potentially vague areas of the Revised Definition, NCBA and PLC seek additional clarity around the concept of "direct hydrologic surface connection." While it is clear that the Agencies' use "inundation" as a means of defining the term "direct hydrologic surface connection," they inadvertently chose a term that left stakeholders with few answers. Understanding the limits of "inundation" is key to implementing the "direct hydrologic surface connection" standard but this term leaves much to stakeholders and regulators for interpretation. Because, in many cases, federal jurisdiction will potentially hinge on inundation, NCBA and PLC urge the Agencies give the regulated stakeholders greater clarity in this section of the rule.

Some commenters may encourage the Agencies to adopt a storm event qualifier for the inundation definition. For the average landowner, a storm event standard is overly complex and does not allow him/her to make a preliminary jurisdictional determination without hiring wetlands consultants – a cost which would be especially burdensome for small business owners that do not have consultants readily available. Alternatively, NCBA and PLC suggest that the Agencies remove the term "inundation" entirely, substituting with the phrase "permanent saturation." Requiring permanent saturation of a potentially jurisdictional wetland is key – not only does this satisfy the first qualifier of the Army Corps wetlands delineation manual (saturation is a hydrologic indicator), but also provides a clear physical indicator for landowners. Permanence is equally necessary. Only those wetlands that are permanently saturated meet the Supreme Court's precedent.[29] Justice Scalia's continuous surface connection standard makes this clear. If a wetland is not permanently saturated and is only connected to a jurisdictional waterbody on an intermittent basis it should not be subject to federal regulation.

---

[27] *SWANCC*, 531 U.S. 159.

[28] 51 Fed. Reg. 41206 (Nov. 13, 1986).

[29] "Therefore, only those wetlands with a continuous surface connection to bodies that are 'waters of the United States' in their own right, so that there is no clear demarcation between 'waters' and wetlands, are 'adjacent to' such waters and covered by the Act. Wetlands with only an intermittent, physically remote hydrologic connection to 'waters of the United States' do not implicate the boundary-drawing problem of *Riverside Bayview*, and thus lack the necessary connection to covered waters that we described as a 'significant nexus' in *SWANCC*." *Rapanos*, 547 U.S. at 742 (internal citations omitted).

Proposed Exclusions

NCBA and PLC support the Agencies' effort to provide a list of exclusions in addition to the above jurisdictional categories. The list is well-formulated and continues to implement long-standing agency policy. However, NCBA and PLC are concerned that, rather than exclusions taking precedence over the rule, the rule supersedes the exclusions list. For example, if the Agencies adopt the typical year standard in the final rule, drawing the jurisdictional line between an excluded ephemeral feature and jurisdictional intermittent feature will rely solely on the presence and strength of the ephemeral feature exclusion. This is largely due to the fact that the intermittent definition, as proposed, has the potential to regulate ephemeral features. The exclusion provision in the 2015 Rule contained a disclaimer, stating that features expressly excluded under (b) "are not [WOTUS] even where they otherwise meet the terms of" the WOTUS definition in (a).[30] This is necessary to ensure that exclusions have the full force of law, rather than becoming mere suggestions. However, the Agencies have not included similar language in the exclusions list of the Revised Definition, leaving the exclusions list vulnerable. Because there are certain exclusions that have exceptions (artificial lakes and ponds), the Agencies barred themselves from fully securing defensibility of the entire list. NCBA and PLC encourage the Agencies to revise the exclusions list to include this necessary language. Further specific recommendations are provided below.

(b)(1) Waters not identified in paragraphs (a)(1) through (6)

Perhaps most important is the Agencies' catch-all exclusion, stating that any water not explicitly included as a jurisdictional water is excluded. This is necessary to carry out the Agencies' intent that the listed exclusions list not be exhaustive. NCBA and PLC support this language and encourage its inclusion in the final rule.

(b)(2) Groundwater

The Agencies' have long taken the position that groundwater is not a medium subject to federal regulation. Rather, it is an intrastate resource left to the states to manage, either alone or regionally. NCBA and PLC appreciate the Agencies' continued commitment to the CWA's cooperative federalism approach. This sentiment extends to subsurface drainage, including tile drains.

(b)(3) Ephemeral features

NCBA and PLC support the Agencies' categorical exclusion of ephemeral features from the Revised Definition. As stated above, the assertion of categorical federal jurisdiction over ephemeral features was NCBA and PLC's most significant issue with the 2015 Rule. Because NCBA and PLC firmly believe that features which only carry water following a precipitation event should not be subject to federal regulation, the Agencies are urged to ensure that the final rule maintains a clear and robust exclusion for ephemeral features. In this vein, NCBA and PLC urge the Agencies to remove the term "direct" from the definition of ephemeral in the final rule. By limiting the application of the ephemeral exclusion to those features that only carry water in

[30] 80 Fed. Reg. at 37105 (June 29, 2015).

"direct" response to precipitation, regulators create a subjective standard that is not easily discernable, especially following a flood event.

Additionally, NCBA and PLC appreciate the Agencies' exclusion of diffuse stormwater run-off and sheet flow from jurisdiction, as these exclusions directly align with the *Rapanos* plurality. However, because the Agencies use the typical year standard to draw a line between intermittent and ephemeral features, the Agencies' must keep in mind that this exclusion is only as effective as the typical year standard is practical.

(b)(4) Ditches not identified in paragraph (a)(3)

In addition to removing the "ditches" category, NCBA and PLC urge the Agencies to provide more detail in the ditches exclusion so that, rather than having to jump to different parts of the final rule to understand which ditches are excluded, regulated stakeholders can read one section and easily understand which ditches are potentially subject to regulation. NCBA and PLC suggest the following language:

> (b)(4) ditches with ephemeral flow, ditches with intermittent flow (unless they (1) satisfy the conditions of the tributary definition and (2) are constructed in a tributary, relocate or alter a tributary, or are constructed in an adjacent wetland), and ditches with perennial flow (unless they (1) satisfy the conditions of the tributary definition and (2) are constructed in a tributary, relocate or alter a tributary, or are constructed in an adjacent wetland)

(b)(5) Prior converted cropland

While the Prior Converted Cropland (PCC) exclusion has existed since 1993, producers have dealt with a moving target for over twenty-five years. This is the first time the Agencies' have provided stakeholders with a regulatory definition and concrete standards. The PCC exclusion is integral in allowing agricultural producers to effectively implement voluntary conservation practices through USDA-NRCS. Thank you for providing much needed clarity.

(b)(7) Artificial lakes and ponds constructed in upland (including farm and stock ponds)

The artificial lake and ponds (b)(7) exclusion is unique in that it includes exceptions to the exclusion. The construction of this text not only puts the (b)(7) exclusion at risk, but Section (b) in its entirety. The proposed structure not only renders the exclusion meaningless, but additionally prevents the Agencies from adding protective language to Section (b) which will clarify its precedence over the base jurisdictional definition. Exceptions to exclusions are only effective when they are narrower than the exclusion itself (in this case, (b)(7) waters). Above, NCBA and PLC state concerns regarding Section (b)'s vulnerability – the rule language potentially has precedence over exclusions, as opposed to exclusions having precedence over the rule. As a result, every (b)(7) water will be lost to the exception – even those in upland. Protective language, suggested above, cannot be inserted at present because it directly contradicts Section (b)'s cross-reference to Section (a). As the Agencies move toward finalizing the Revised Definition, NCBA and PLC urge the Agencies to revise the (b)(7) exclusion so that, rather than cross-referencing the jurisdictional regulation language, the text describes lakes and ponds not subject to the exclusion.

NCBA and PLC suggest the following text:

> (b)(7) Artificial lakes and ponds (including water storage reservoirs, farm and stock watering ponds, and log cleaning ponds) which are not traditional navigable waters.

The 2015 Rule's numeric distance limitations put many cattle producers on edge, wondering if their isolated stock ponds would become subject to federal jurisdiction. NCBA and PLC appreciate not only the Agencies' general exclusion of artificial lakes and ponds, but the stated exclusion of farm and stock watering ponds. However, as currently drafted, the proposed regulatory text suggests that the exclusion is incredibly narrow, because the text refers only to those features constructed in upland. For this exclusion to be meaningful to cattle producers, it is important that it not be limited to features constructed on dry land. The very purpose of ponds is to carry or store water, which means that they are not typically constructed in upland. Often, the only rational place to construct a farm or stock pond is in a naturally low area, capturing stormwater that enters the ditch or pond through sheet flow and ephemeral drainages. Depending on the topography of a given patch of land, pond construction may be infeasible without some excavation in a natural ephemeral drainage or a low area with wetland characteristics.

The preamble also clarifies that this exclusion applies to artificial lakes and ponds created as a result of impounding non-jurisdictional waters or features, as well as conveyances in upland that are physically connected to and are part of the proposed excluded feature. NCBA and PLC support the Agencies' intent to exclude farm and stock watering ponds created with non-jurisdictional impoundments. These features are heavily relied upon by cattle producers across the country. However, NCBA and PLC recommend that the Agencies revise the exclusion to explicitly exclude lakes and ponds "constructed by impounding non-jurisdictional waters or features."

(b)(11) Waste treatment systems

Cattle feeding operations and dairies implement waste management systems to store and effectively recycle animal waste. NCBA and PLC support the Agencies' definition of "waste treatment systems, as well as the exclusion of waste treatment systems from federal jurisdiction. These systems are point sources under the Clean Water Act and are managed as such.

Supporting Documents

Economic Analysis

NCBA and PLC appreciate the Agencies' effort in assessing the economic impacts of the proposed rule and notes the vast improvement of the Economic Analysis over the similar analysis provided in support of the 2015 Rule. The Revised Definition's Economic Analysis is much more closely aligned with relevant EPA Guidelines for Preparing Economic Analyses and the OMB A-4 Circular.

Resource and Programmatic Assessment

In the RPA, the Agencies describe how the proposed regulation compares to the baseline of the 2015 Rule and an alternate baseline of pre-2015 practice (i.e., the pre-2015 regulations as interpreted by the Supreme Court and implemented through agency guidance), both of which

represent current practice in some areas of the country. The Agencies' analysis is based upon research of current state laws and programs for the oversight of waters and the identification of the relevant datasets for determining the scope of potential jurisdictional changes for different types of aquatic resources. These datasets included: (1) the Corps' Operation and Maintenance Business Information Link, Regulatory Module (ORM2) database, which documents Corps decisions regarding the jurisdictional status of various aquatic resource types (i.e., jurisdictional determinations); and (2) the National Hydrography Dataset (NHD) at High Resolution and the National Wetlands Inventory (NWI). The Agencies acknowledged the technical limitations in using these datasets for the analysis, given that neither is designed nor able to accurately portray jurisdictional waters under the CWA (nor provide water resource data that correlates with the terms used in the proposed rule). NCBA and PLC appreciate the thorough nature of this analysis, which provides a comprehensive analysis of the potential implications of the proposal for all of the relevant CWA programs and the interplay between relevant state and federal regulation.

Connectivity Report[31]

The agencies' proposed approach aligns with the scientific principles detailed in the Connectivity Report, which explains that hydrologic connectivity occurs along a gradient and that some waters have more impact on downstream waters than others. It reflects the agencies' legal and policy determination, informed by the science of the Connectivity Report, to extend federal protections to those waters that have the greatest influence on downstream waters, such as waters that contribute perennial and intermittent flow and wetlands that directly abut those waters. The science also establishes that ephemeral features and isolated wetlands in many cases have limited chemical, physical, and biological effects on downgradient waters.

Conclusion

NCBA and PLC appreciate the opportunity to provide comments to the docket on behalf of America's cattle producers. This issue is of the utmost importance to the cattle industry and has the potential to detrimentally impact the day-to-day functions of ranches and cattle feeding operations across the country. NCBA and PLC generally support efforts made by the Agencies to propose a WOTUS definition that contemplates Congressional intent, Supreme Court precedent, and scientific data. The Associations look forward to a final rule that furthers these goals, while ensuring on-the-ground implementability. Thank you for your time and consideration.

Sincerely,

National Cattlemen's Beef Association

Public Lands Council

Alabama Cattlemen's Association

[31] U.S. EPA. *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of Scientific Evidence (Final Report).* U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-14/475F, 2015.

American Sheep Industry Association

Arkansas Cattlemen's Association

Arizona Cattle Feeders' Association

Arizona Cattle Growers' Association

California Cattlemen's Association

Colorado Cattlemen's Association

Colorado Livestock Association

Five Rivers Cattle Feeding, LLC

Florida Cattlemen's Association

Georgia Cattlemen's Association

Hawaii Cattlemen's Council

Idaho Cattle Association

Illinois Beef Association

Indiana Beef Cattle Association

Iowa Cattlemen's Association

Kansas Livestock Association

Kentucky Cattlemen's Association

Louisiana Cattlemen's Association

Maryland Cattlemen's Association

Michigan Cattlemen's Association

Minnesota State Cattlemen's Association

Missouri Cattlemen's Association

Montana Stockgrowers Association

Montana Public Lands Council

Montana Association of State Grazing Districts

Nebraska Cattlemen

Nevada Cattlemen's Association

New Mexico Cattle Grower's Association

New York Beef Producer's Association

North Carolina Cattlemen's Association

North Dakota Stockmen's Association

Ohio Cattlemen's Association

Oklahoma Cattlemen's Association

Oregon Cattlemen's Association

Pennsylvania Cattlemen's Association

South Carolina Cattlemen's Association

South Dakota Cattlemen's Association

Tennessee Cattlemen's Association

Texas Cattle Feeders Association

Utah Cattlemen's Association

Virginia Cattlemen's Association

Washington Cattle Feeders Association

Wisconsin Cattlemen's Association

Wyoming Stock Growers Association

Attachments (2):

(1) Photos: Hydrologic Feature – Rocky Mountain Region

(2) NRCS WI Companion Document 580-5, Stream Classification Using the Rosgen System

Attachment (1): Hydrologic Feature – Rocky Mountain Region (Photo 1)

Attachment (1): Hydrologic Feature – Rocky Mountain Region (Photo 2)

STREAM CLASSIFICATION USING THE ROSGEN SYSTEM

1. Identify bankfull elevations and mark cross-sections.

   Identify the bankfull elevation by walking along a reach that is 20-30 times the bankfull width long, marking bankfull indicators with flags. This usually includes at least three meander bends. Choose three locations to measure cross-sections, placing them at crossovers, where the thalweg switches from one bank to the other. The flags help identify bankfull elevation even when indicators are not present at selected cross-sections.

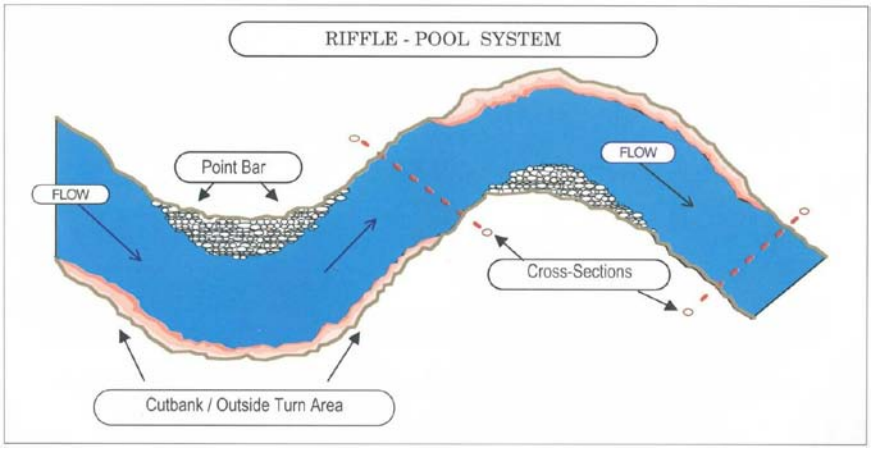

Figure 1: Recommended cross-section locations for bankfull stage measurements in "riffle/pool" system

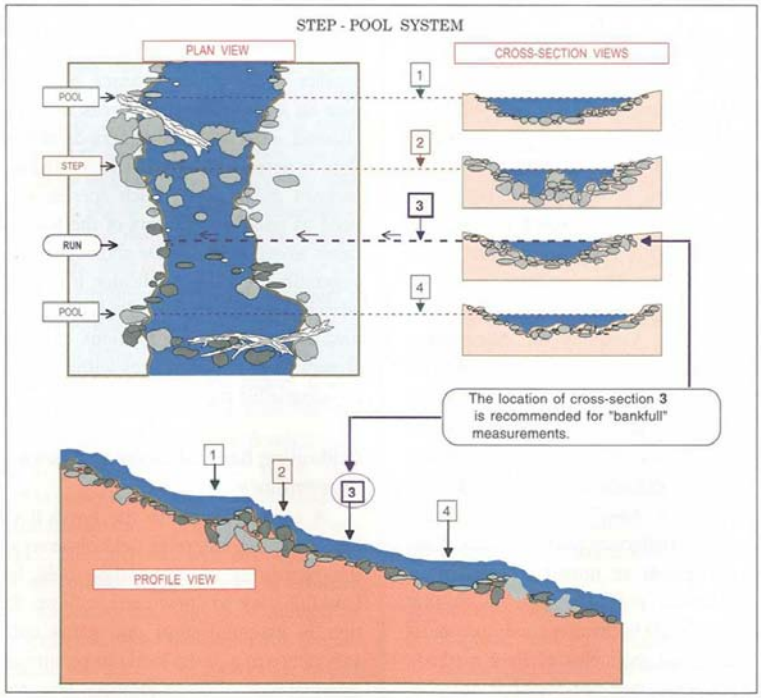

Figure 2: Recommended location for measurement of bankfull stage in "step/pool" system

2. Survey cross-sections.

Measure a stream channel cross section. This means surveying the cross section from bankfull elevation on one bank to the other bank. You will need to survey up into the flooplain as well (see step 3). Wisconsin Job Sheet 811, Stream Channel Classification, may be used to aid in classification.

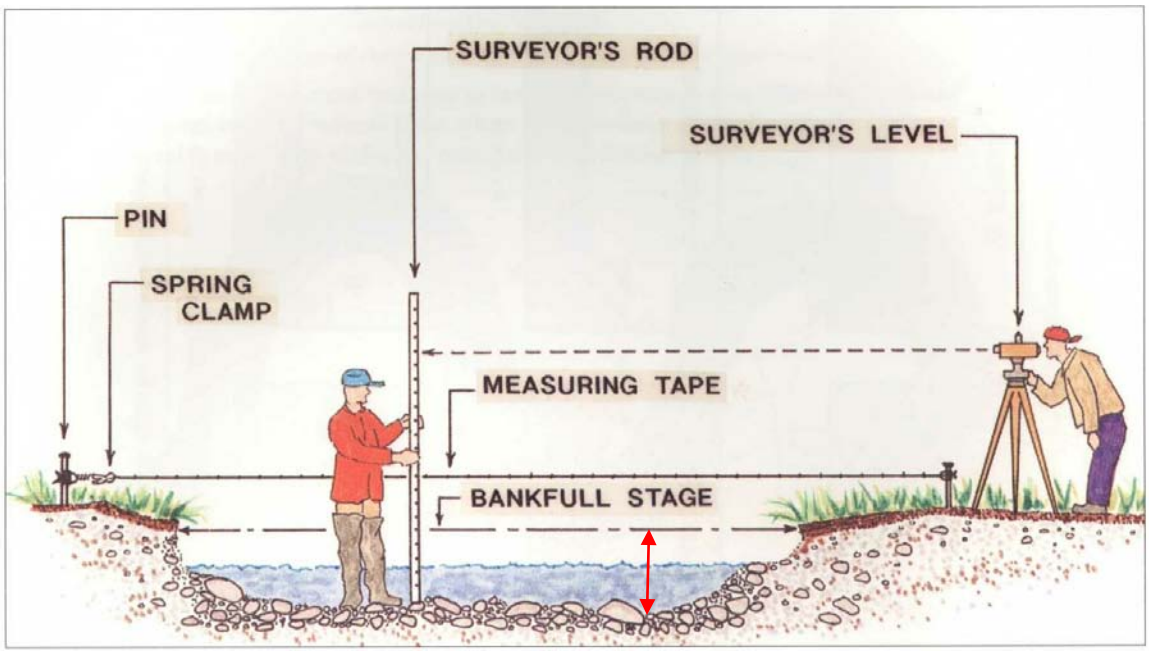

Figure 3: Measuring a stream channel cross-section

In the above diagram:
bankfull width is the distance between the banks at bankfull stage (dashed arrow)
maximum bankfull depth is the difference in elevation between the bankfull stage and the deepest part of the cross section (red arrow)
bankfull depth or *mean depth* is the cross sectional area at bankfull divided by the bankfull width. See step 7 for detailed instructions on calculating mean depth.

In Wisconsin, the bankfull elevation is roughly the water elevation during the 1.2 year discharge. The bankfull elevation is the same as the ordinary high water mark (OHWM). In many channels this is the point where water begins to flow out onto its floodplain. Since floodplains may be small or inconspicuous in some stream types where the floodplains are naturally indistinct, it is important to verify correct identification of the bankfull surface by checking it against the 1.2 year discharge. Your geologist or engineer can provide assistance in determining the bankfull elevation and bankfull discharge and return interval. Several methods of determining bankfull discharge are provided in NEH 654, Stream Restoration Design, Chapter 6, Stream Hydraulics, Wisconsin Supplement, **Hydraulics for Design.**

Discharge can also be found indirectly by using Manning's equation to find the velocity and then multiplying that by the cross sectional area. Several methods of determining Manning's n are provided in NEH 654, Stream Restoration Design, Chapter 6, Stream Hydraulics, Wisconsin Supplement, **Hydraulics for Design.**

3. Determine the entrenchment ratio.

Determine the floodprone elevation and measure the width. To find the floodprone elevation, take the maximum depth from the bankfull elevation to the stream bed and multiply by 2. Measure the width at the floodprone elevation. Divide the width at the floodprone elevation by the width at bankfull elevation to determine the Entrenchment Ratio. The floodprone elevation roughly represents the water elevation during the 50 year discharge.

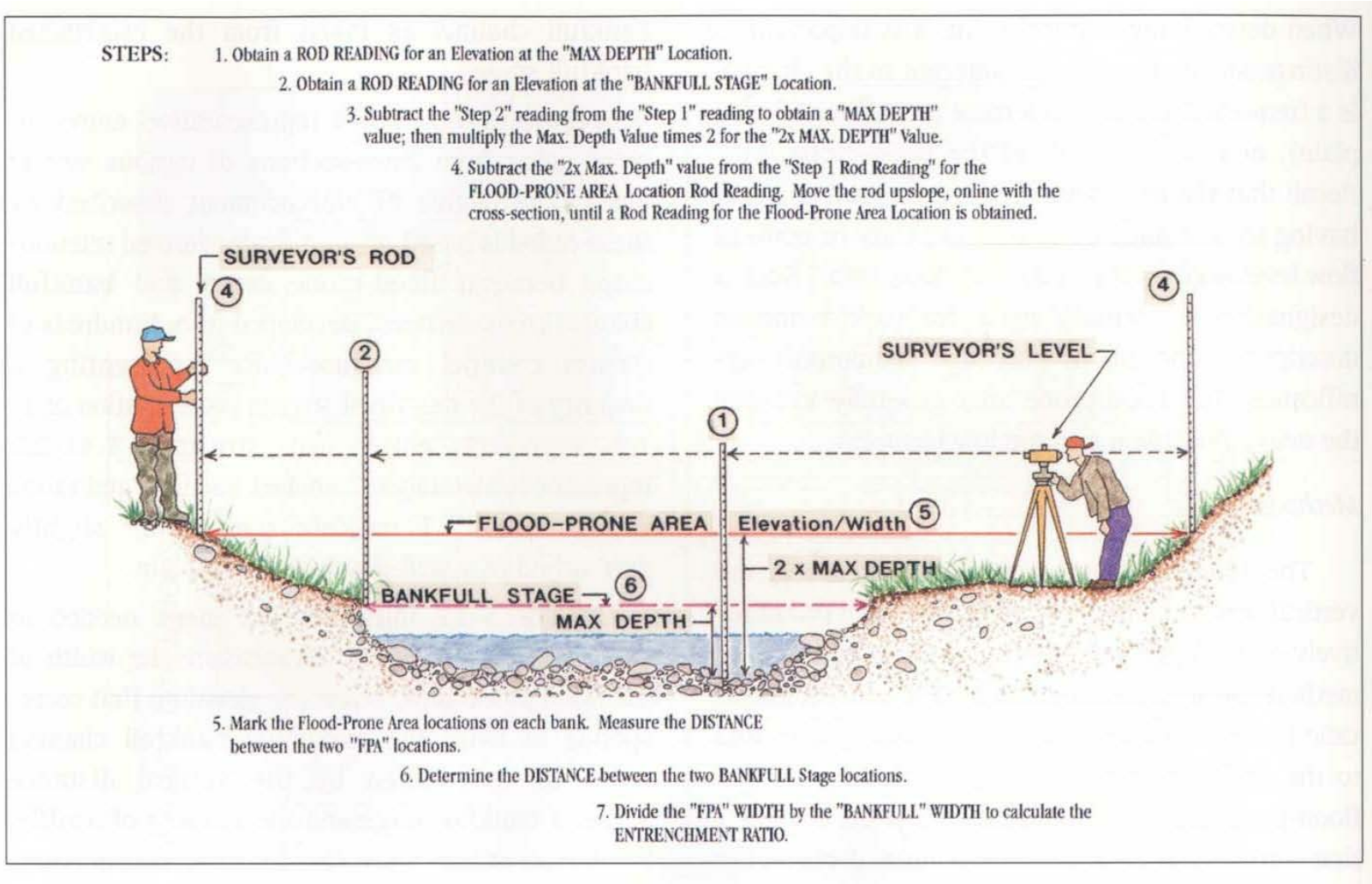

Figure 4: Floodprone width and Entrenchment Ratio

4. Measure the water surface slope (gradient).

Slope is measured between two bed features of the same type (top of riffle to top of riffle or center of pool to center of pool). Measurements should be accurate to the hundredths level because stream gradients are often low. Wisconsin has many “C” and “E” stream types which tend to have flat gradients in the range of 0.001 to 0.0001 feet/feet. Be sure to measure a reach that is long enough - at least 20 times the width at bankfull.

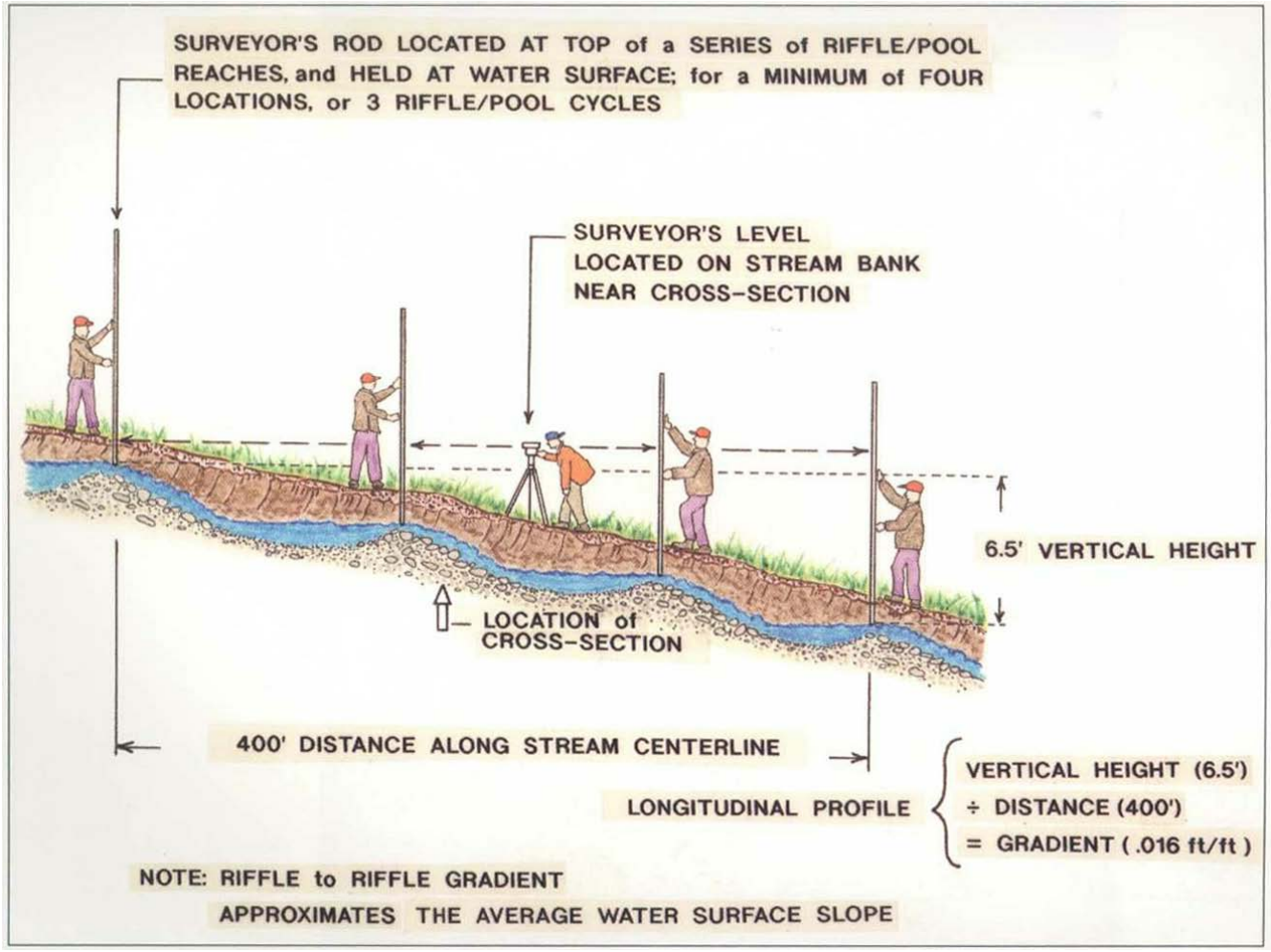

Figure 5: Measuring stream gradient through a typical riffle/pool sequence

5. Measure the sinuosity of the stream.

   For small streams, this can be done with a tape measure. Measure the length along the stream and measure the length of the valley for the same reach of stream. In other cases, these measurements can be made using an aerial photo.

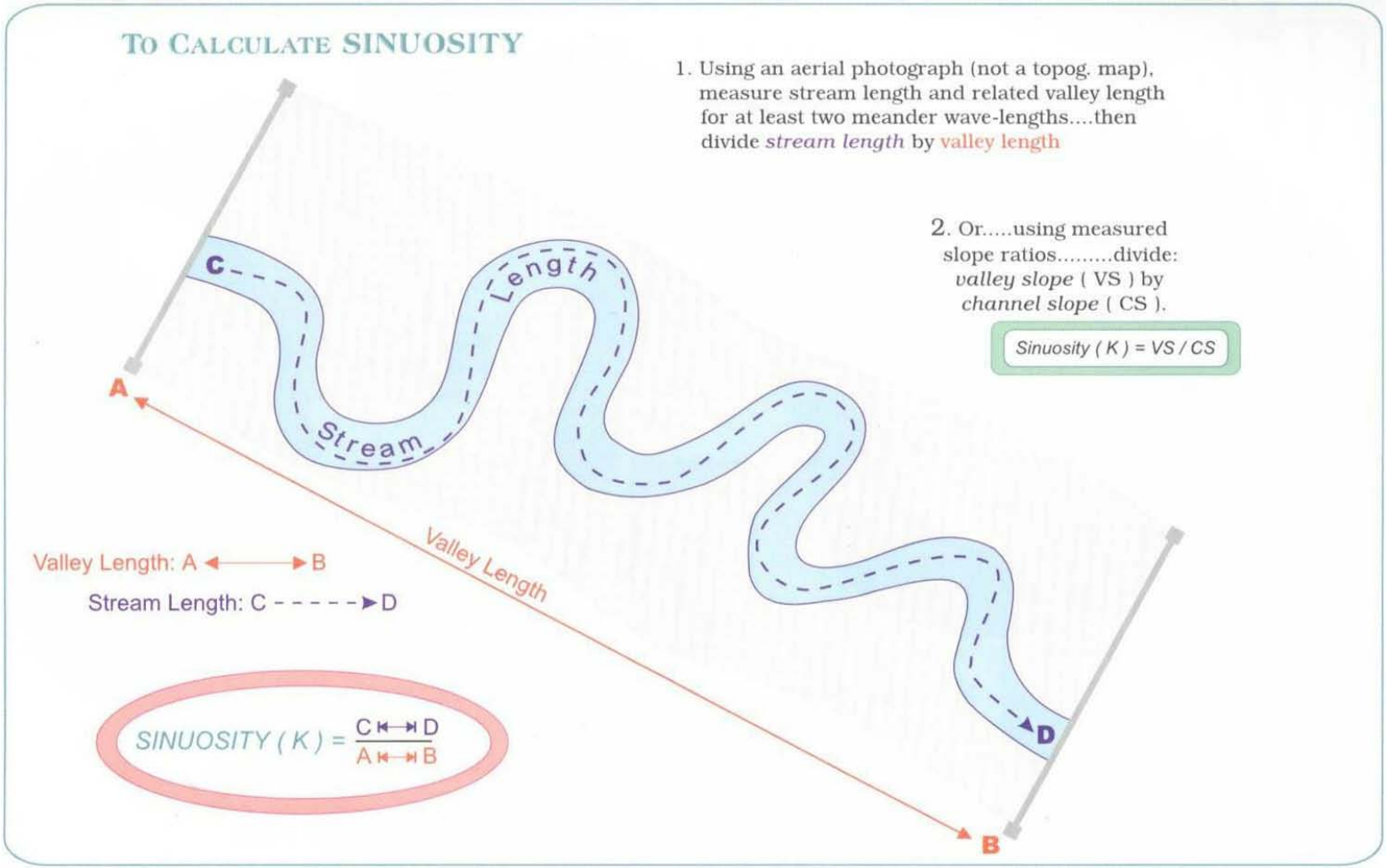

Figure 6: Channel Sinuosity Calculations

6. Pebble Count.

Take a pebble count of the material in the active channel. First, determine the percentage of the reach in pools and the percentage that is riffles. Take ten measurements at ten different locations as shown below. Calculate the D50 particle size.

Pebble count data can be taken on Wisconsin Job Sheet 810, Pebble Count ftp://ftp-fc.sc.egov.usda.gov/WI/jobsheets/js-810.pdf. If desired, pebble count data can be entered into the free Ohio DNR STREAM Modules developed by Mecklenburg and others Stream Morphology - Modules. The spreadsheet will plot the pebble count and determine D50 for you.

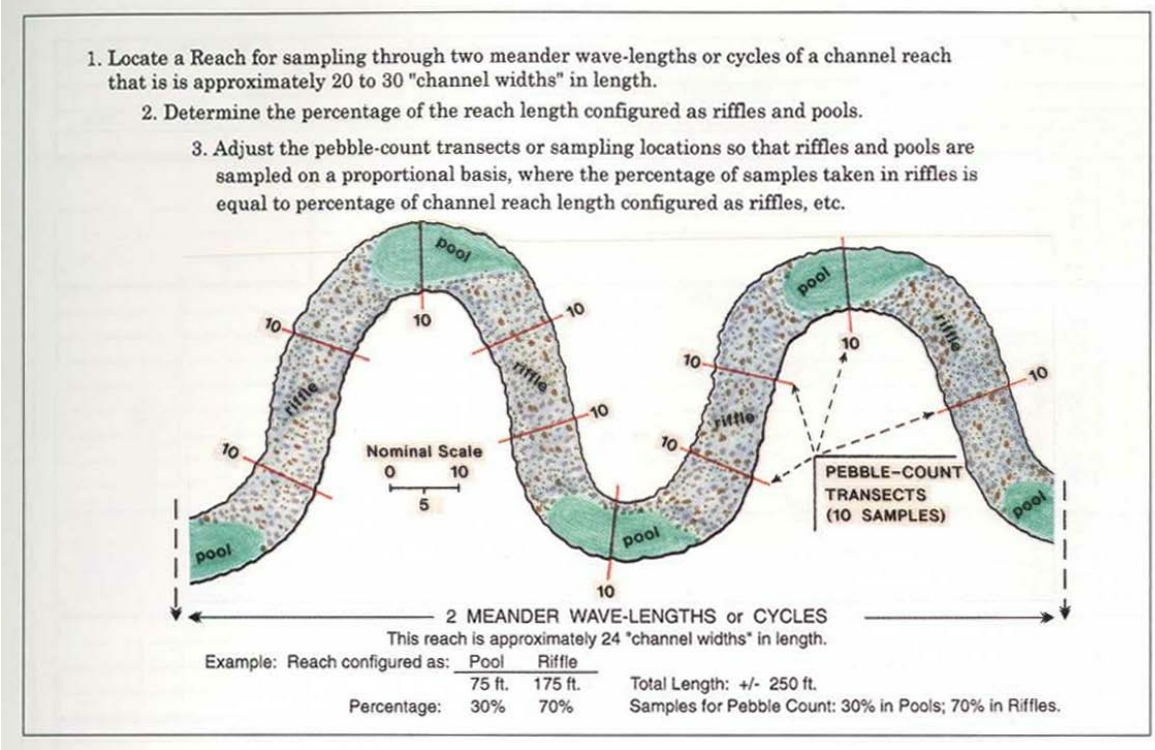

Figure 7: Pebble count procedure

Figure 8: sand gage

7. Mean Depth (Bankfull Depth)

Find the mean depth at bankfull. Determine the area of the cross section. It may be easiest to divide the cross section into cells and compute the area of the cells and then add the areas of the cells together. Area can also be found by plotting on grid paper and counting squares or calculating on a CAD system or using the Wisconsin spreadsheet Area By Coordinate Method . ftp://ftp-fc.sc.egov.usda.gov/WI/engcad/Spreadsheets/Area-By-Coordinate-Method.xls. Divide the area by the width to get mean bankfull depth (d_{bkf}).

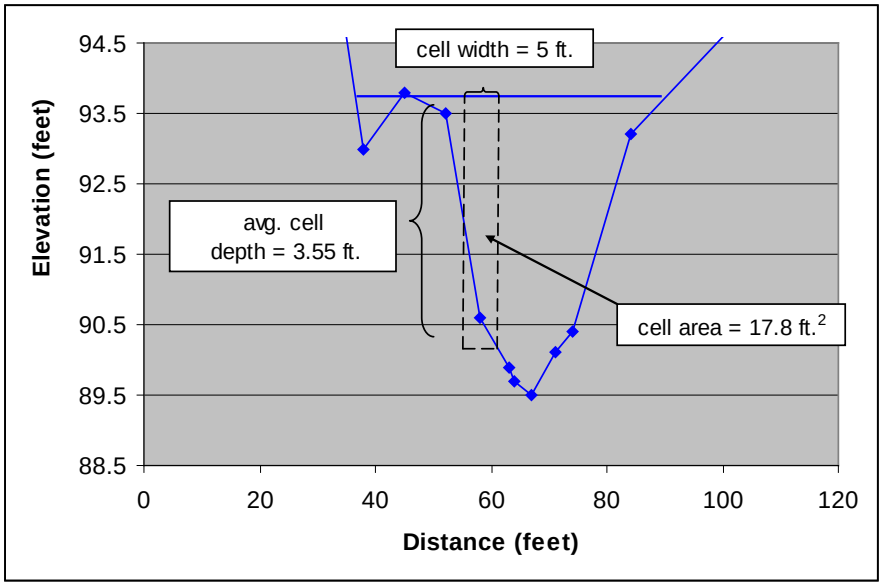

Figure 9: Area calculation of an individual cell

8. Use the key to classify the stream.

Wisconsin Job Sheet 811 Stream Channel Classification can be used to enter reach data for classification [js-811.pdf on ftp-fc.sc.egov.usda.gov](ftp-fc.sc.egov.usda.gov).

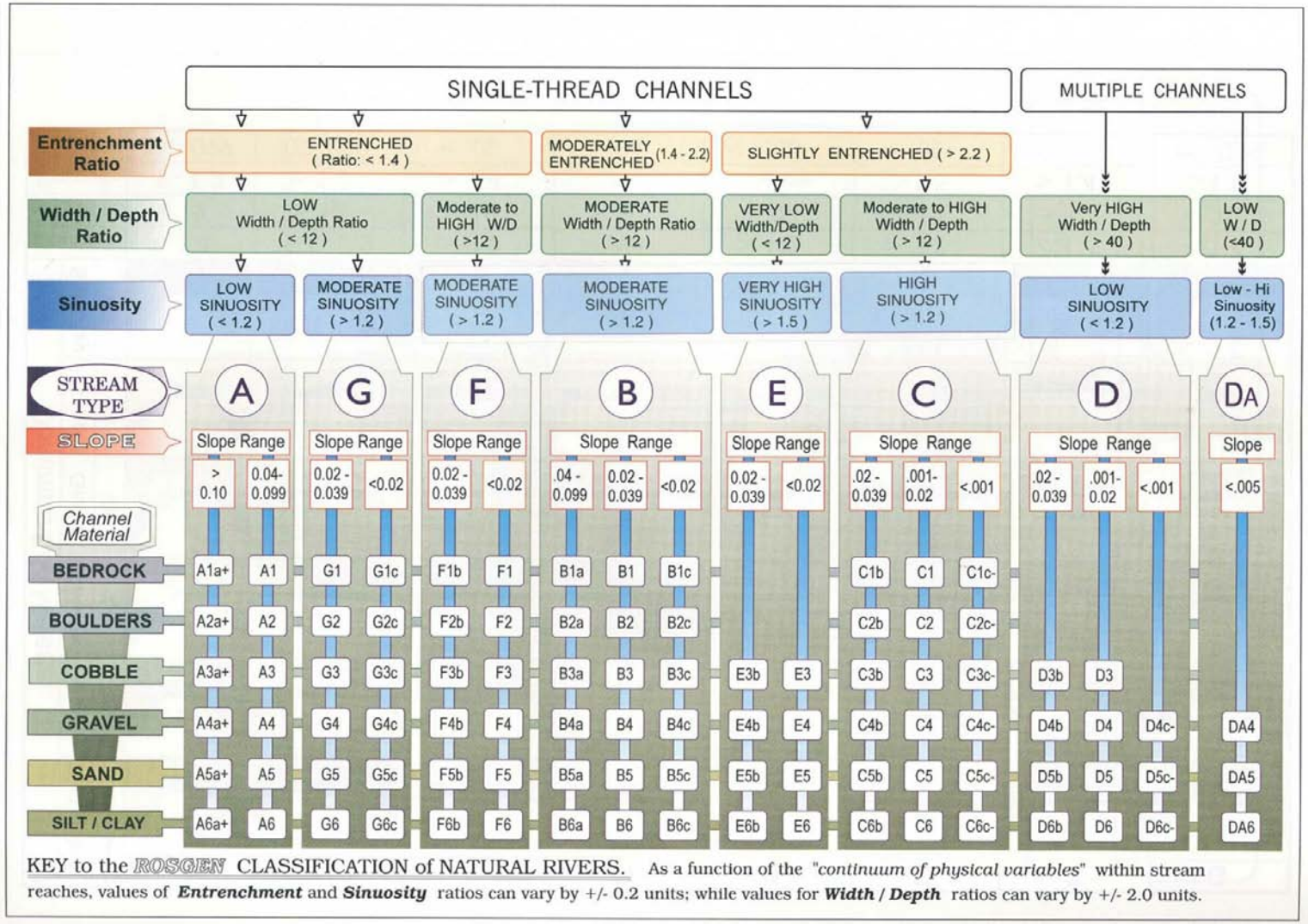

Figure 10: Stream Classification Key