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UNDER THE RIVER AND THROUGH THE COMMON LAW: ANALYZING THE IMPACTS AND PROPENSITY OF STATE ADOPTION OF THE *PPL MONTANA* NAVIGABILITY-FOR- TITLE STANDARD

JESSICA KRAUS*

INTRODUCTION

Hidden beneath the watercourses, running through our country like natural veins, lies a resource fervently pursued. It is not gold or silver or a magical elixir. It is the mucky, muddy, silty streambed itself. For he who owns the streambed owns all it contains.¹ Streambed ownership is not often considered a hot button issue in today's society. That quickly changes when one thinks of the impacts such ownership has on routine practices. Royalties from oil and gas production,² pollution remediation,³ rights to fish, swim, and boat,⁴ renewable energy,⁵ all of these are implicated by the determination of who owns a streambed. Such ownership issues are determined by the navigability of the stream.⁶ On the federal level, navigability law has formed through the development of common law over much of American history.⁷ Additionally, since property law is a product of the states, each state has developed its own history of common law

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¹ See Rachael Lipinski, *The Dividing Line: Applying the Navigability-for-Title Test after PPL Montana*, 91 OR. L. REV. 247, 247 (2012).

² See *Shale Gas and Publicly-Owned Streambeds*, PA. DEP'T OF CONSERVATION & NAT. RES., <https://www.dcnr.pa.gov/Business/StreambedGasLeasing/Pages/default.aspx> [<https://perma.cc/KZF8-MP8E>] (last visited Nov. 24, 2020) [hereinafter *PA Streambed Leasing Policy*].

³ See Qianrui Wang et al., *Sources and Remediation for Mercury Contamination in Aquatic Systems—A Literature Review*, 131 ENV'T POLLUTION 323, 328 (2004).

⁴ See *Lehigh Falls Fishing Club v. Andrejewski*, 735 A.2d 718, 718–19 (Pa. Super. Ct. 1999).

⁵ See *PPL Montana, LLC v. Montana*, 565 U.S. 576, 586–87 (2012) (discussing hydro-power dams).

⁶ *Pollard's Lessee v. Hagan*, 44 U.S. 212, 219–21 (1845).

⁷ See Lipinski, *supra* note 1, at 251–55.

governing the issue.⁸ Though navigability law is a product of years of development, it should not be assumed that it is complete and without holes of misunderstanding.

The Supreme Court added an additional layer to the federal navigability-for-title test with its holding in *PPL Montana, LLC v. Montana* in 2012.⁹ The navigability-for-title test asserts that the navigability of a stream or river is determinative of the ownership of the underlying streambed.¹⁰ If the watercourse is navigable, streambed ownership belongs to the state.¹¹ If the watercourse is non-navigable, streambed ownership belongs to the riparian owners to the midpoint of the watercourse.¹² The Court's addition of the segmented approach to determinations of navigability-for-title, in which navigability of a stream is determined through factual analysis of specific segments of the stream rather than the stream as a whole, came as some surprise.¹³ Since then, scholars and practitioners alike have debated the application of the segment-by-segment approach to the thirteen original colonies due to the Court's reliance on the equal footing doctrine in reaching its holding.¹⁴ The equal footing doctrine was established in the late 1700s in order to create a process for admitting new states into the Union that would put them in a similar legal position as the original states.¹⁵ The Court's use of this doctrine in its analysis in *PPL Montana* spurred further questions of applicability of the law to every state.¹⁶

State common law differs regarding tests for navigability-for-title, and some states do not follow the segmented approach.¹⁷ However, due to the underlying principles of the equal footing doctrine, the historic promulgation of federal navigability standards by states, and the characteristics of the natural resources at issue, the federal segment-by-segment approach

⁸ See *infra* notes 81–105 and accompanying text.

⁹ *PPL Montana*, 565 U.S. at 593, 597.

¹⁰ Robin Kundis Craig, *A Comparative Guide to the Eastern Public Trust Doctrines: Classifications of States, Property Rights, and State Summaries*, 16 PA. ST. ENV'T L. REV. 1, 6–8 (2007).

¹¹ *Id.* at 7.

¹² *Id.* at 7–8.

¹³ See Lipinski, *supra* note 1, at 267–68.

¹⁴ See *N.C. Dep't of Admin. v. Alcoa Power Generating, Inc.*, 853 F.3d 140, 148 (4th Cir. 2017); Lipinski, *supra* note 1, at 269.

¹⁵ *Pollard's Lessee v. Hagan*, 44 U.S. 212, 222 (1845).

¹⁶ See Lipinski, *supra* note 1, at 270–71.

¹⁷ See Douglas C. McElwee & Charles McElwee, *State/Private Ownership of Non-Tidal Streambeds, Banks and Their Substrata in Pennsylvania, Ohio, Virginia, Kentucky, and West Virginia*, 32 ENERGY & MIN. L. INST. 400, 403–27 (2011).

to navigability-for-title determinations set forth in *PPL Montana* should be adopted by all states in the Union. Such a determination would likely have impacts on natural gas and oil operations, public recreation, and pollution remediation.

This Note will begin by discussing the history of the federal navigability-for-title test as well as the equal footing doctrine. The Note will then move into a review of how the Supreme Court applied this test and doctrine in reaching its decision in *PPL Montana* and further explain the new law it created. The next portion of the Note will assert the argument that all states should adopt the federal navigability-for-title test as outlined in *PPL Montana*. This Note will discuss how state law differs from federal law and then will move into the argument in favor of adoption of the federal standard. The final portion of the Note will address policy considerations in the areas of energy production, pollution remediation, and public rights that are implicated by adoption of the federal standard.

I. RELEVANT COMMON LAW HISTORY

In order to best understand the holding of *PPL Montana*, a review of the common law origins and development of the foundations of the Court's analysis are necessary. First, this Note will discuss the development of the navigability-for-title test. Next, this Note will review the equal footing doctrine. As will be discussed later, these legal principles and frameworks have implications on the application of the *PPL Montana* holding.

A. *Navigability-for-Title Test*

As mentioned, the navigability-for-title test that was utilized by the Court in its analysis in *PPL Montana* has been developed through many years of common law decisions.¹⁸ In order to best understand the Court in *PPL Montana*, a brief review of the test's development is important.

In *The Daniel Ball*, the Supreme Court assessed a steamship's compliance with a federal statute.¹⁹ This statute, however, would only apply if the Grand River was determined to be navigable.²⁰ As such, the majority of the court's opinion focused on determining the navigability

¹⁸ See *infra* notes 19–42 and accompanying text.

¹⁹ *The Daniel Ball*, 77 U.S. 557, 558 (1870).

²⁰ *Id.* at 562.

of the river.²¹ In reaching its holding, the Court first rejected the English common law rule of navigability based on the ebb and flow of the tide of the watercourse.²² It then established a new test of navigability:

Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.²³

The Court then employed a factual analysis to determine that the Grand River was navigable and, therefore, that the relevant statute applied.²⁴

In *United States v. State of Utah*, the United States entered a quiet title action against Utah for ownership of the beds of the Green, Colorado, and Utah rivers.²⁵ Both parties had, or were interested in, contracting with private companies for the exploration and development of oil and gas in the riverbeds.²⁶ Utah claimed the rivers to be navigable and, therefore, owned by the state.²⁷ The Court enlisted a special master to hold hearings and conduct a factual determination of the navigability of the rivers prior to Utah's admittance as a state into the Union.²⁸ Based on these factual findings, the Court held that portions of the rivers were navigable prior to Utah's admission into the Union and, therefore, the riverbeds belonged to the state.²⁹ Other portions of the rivers were non-navigable, the beds of which belonged to the United States.³⁰ *United States v. Utah* was a clear application of the federal standard established in *The Daniel Ball* to a case in which the state government and the federal government were both seeking ownership of the beds of a stream or river.³¹

In *United States v. Appalachian Electric Power Co.*, Appalachian Electric was planning to build a hydroelectric dam on the New River in

²¹ *Id.* at 562–64.

²² *Id.* at 563.

²³ *Id.*

²⁴ *Id.* at 564, 566.

²⁵ *United States v. Utah*, 283 U.S. 64, 71 (1931).

²⁶ *Id.* at 72.

²⁷ *Id.*

²⁸ *Id.* at 72–73.

²⁹ *Id.* at 89–90.

³⁰ *Utah*, 283 U.S. at 90.

³¹ *Id.* at 76.

Virginia.³² Whether or not the New River was navigable was imperative in determining if the dam was subject to federal statutes and licensing or if the electric company had clear title on the asset.³³ Of specific concern to the Court was the federal government's interest in the promotion of interstate commerce and the right to regulate such in navigable waters.³⁴ In making its navigability determination, the Court stated that (1) once a stream or river was determined navigable, it remained navigable;³⁵ (2) reasonable improvements in the river that make it capable of interstate commerce could be considered in determining navigability;³⁶ and (3) the navigable use of the river does not have to be continuous for the river to be deemed navigable.³⁷

A key distinction occurs in the administration of the federal standard to cases of navigability for federal regulatory determinations and navigability for cases of state title ownership.³⁸ In the regulatory cases, navigability can be determined in the past, present, or even future conditions of the waterway.³⁹ In cases for state title, navigability is determined at the time the state entered the union.⁴⁰ Together, these cases form the basis of the federal navigability-for-title standard established through common law.⁴¹

B. *The Equal Footing Doctrine*

Understanding of the equal footing doctrine and its history is imperative in understanding the Court's ruling in *PPL Montana*. The Court

³² *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 398 (1940).

³³ *Id.* at 398, 402–03.

³⁴ *Id.* at 404–05.

³⁵ *Id.* at 408.

³⁶ *Id.* at 409.

³⁷ *Appalachian Elec. Power Co.*, 311 U.S. at 409.

³⁸ Paul Phillips, *U.S. Supreme Court Addresses "Equal Footing" Doctrine and Ownership of Beds and Banks of "Navigable" Rivers*, AM. COLL. ENV'T L. (Mar. 28, 2012), <http://www.aacol.org/post/2012/03/28/US-SUPREME-COURT-ADDRESSES-“EQUAL-FOOTING”-DOCTRINE-AND-OWNERSHIP-OF-BEDS-AND-BANKS-OF-“NAVIGABLE”-RIVERS.aspx> [https://perma.cc/FX8U-T4RS]. Compare *United States v. Appalachian Elec. Power Co.*, 311 U.S. at 404–05 (1940) (determining navigability for federal regulatory purposes), with *United States v. Utah*, 283 U.S. 64, 72 (1931) (determining navigability for ownership between the state and federal government).

³⁹ *PPL Montana, LLC v. Montana*, 565 U.S. 576, 592 (2012).

⁴⁰ *Id.*

⁴¹ See *id.*

puts great weight on the intent and execution of the doctrine in reaching its decision.⁴² Therefore, a brief review of the leading case on the issue is essential to an effective discussion of why states should adopt the segmented approach to navigability set forth in *PPL Montana*.

The equal footing doctrine was articulated by the United States Supreme Court in *Pollard's Lessee v. Hagan* in 1845.⁴³ According to the Court, "the [new states] must be admitted to the Union on equal footing with the rest."⁴⁴ When new states joined the Union, the land they were to occupy was often ceded from an existing state.⁴⁵ It was the intent of the Union and the original states that the ceded lands would be used to create new states and that the Union would hold the ceded lands in trust until admittance of the new state occurred.⁴⁶ However, once the new state was admitted, "the United States shall have fully executed these trusts, the municipal sovereignty of the new states will be complete, throughout their respective borders, and they, and the original states, will be upon an equal footing, in all respects whatever."⁴⁷ The United States then transferred ownership of unclaimed land to the new state upon its formation, ensuring the same level of sovereignty that the original states enjoyed.⁴⁸

Originally, the equal footing doctrine was invoked by states to prevent Congress from unfairly treating new states and imposing conditions on their admission to the Union.⁴⁹ These conditions stretched beyond streambed ownership to mandates such as the location of the state capitol.⁵⁰ In modern times, litigation involving the rights of Native American tribes to submerged lands on reservations has commonly involved the equal footing doctrine.⁵¹ Since the equal footing doctrine has proven a valid consideration by courts in reaching their conclusions for these disputes,⁵² it is not surprising that the Court in *PPL Montana* employed

⁴² *Id.* at 593–95.

⁴³ *Pollard's Lessee v. Hagan*, 44 U.S. 212, 216 (1845).

⁴⁴ *Id.*

⁴⁵ *Id.* at 221–24.

⁴⁶ *Id.* at 224.

⁴⁷ *Id.*

⁴⁸ *Pollard's Lessee*, 44 U.S. at 224; Dennison A. Butler, *Riparian Rights, Navigability, and the Equal Footing Doctrine in Montana*, 38 PUB. LAND & RES. L. REV. 188, 188–89 (2017).

⁴⁹ Louis Touton, Note, *The Property Power, Federalism, and the Equal Footing Doctrine*, 80 COLUM. L. REV. 817, 833 (1980).

⁵⁰ *Id.* at 833–34.

⁵¹ Frank W. DiCatri, Comment, *Are All States Really Equal? The "Equal Footing" Doctrine and Indian Claims to Submerged Lands*, 1997 WIS. L. REV. 179, 183–86 (1997).

⁵² *See id.*

a similar analysis when determining the ownership of streambeds for energy infrastructure purposes.⁵³

II. APPLICATION OF THE NAVIGABILITY-FOR-TITLE TEST IN *PPL MONTANA*

The Court's approach to reasoning in *PPL Montana* contains a combination of navigability-in-fact and equal footing doctrine common law principles.⁵⁴ With the basic understanding of these common law principles in mind, the approach of the Court, as well as the resulting implications, can be more clearly understood.⁵⁵

In *PPL Montana*, controversy arose over payments for the use of hydroelectric dams in the Missouri, Madison, and Clark Fork Rivers in Montana.⁵⁶ Montana had historically not asserted a claim to payment from the use of the riverbeds.⁵⁷ Instead, PPL Montana had paid rents to the United States.⁵⁸ PPL Montana filed suit in an attempt to prevent Montana from seeking rent payments for the use of the riverbeds.⁵⁹ Montana counterclaimed, arguing that title belonged to the state under the equal footing doctrine.⁶⁰ The trial court ruled in favor of Montana and awarded damages of nearly \$41,000,000.⁶¹ The Montana Supreme Court affirmed, reasoning that the river segments at issue were short interruptions of navigability and that the rivers as a whole were navigable.⁶² Title, therefore, resided in the state.⁶³

The United States Supreme Court reversed the state court's decision.⁶⁴ In reaching its holding, the Court set forth the development of common law for navigability-for-title as well as the equal footing doctrine.⁶⁵

⁵³ See *PPL Montana, LLC v. Montana*, 565 U.S. 576, 590–91 (2012).

⁵⁴ *Id.* at 593–603.

⁵⁵ See *id.*

⁵⁶ *Id.* at 586–87.

⁵⁷ *Id.* at 587.

⁵⁸ *PPL Montana*, 565 U.S. at 587.

⁵⁹ Montana first asserted its right to receive rents for the facilities when it joined as a plaintiff in a case brought by parents of Montana school children seeking the rents as part of the Montana school trust. Though that case was dismissed, it prompted PPL Montana to file this suit. *Id.*

⁶⁰ *Id.*

⁶¹ *Id.* at 587–88.

⁶² *Id.* at 588.

⁶³ *PPL Montana*, 565 U.S. at 588.

⁶⁴ *Id.* at 605.

⁶⁵ *Id.* at 593–603.

The Court began its analysis by finding error with the state court's treatment of the river segments.⁶⁶ According to the Court, navigability of the river should be determined by analyzing each distinct and discrete segment's navigability.⁶⁷ This has been termed the segment-by-segment approach.⁶⁸ In addition to legal analysis of this approach, the Court also set forth several practical considerations in support of segmented navigability determinations.⁶⁹ These include (1) that the historical grant of beds of navigable rivers to states was for the purpose of protecting interstate commerce, something only accomplished on a navigable river;⁷⁰ (2) that segments will be easily determined based on changes in the physical conditions of the rivers, especially longer rivers;⁷¹ and (3) that the federal standard's segmented approach was consistent with private riverbed title claims that secure ownership of the riverbed for the portion of the riverbed adjacent to the riparian owner's property.⁷²

After analyzing other factors of the state court's analysis, the Court held that at least some of the river segments at issue were likely non-navigable, and therefore title to the riverbeds of these segments would not lie in the state.⁷³ The Court instructed further factual determinations to be decided on remand.⁷⁴

III. APPLICABILITY OF THE FEDERAL STANDARD TO THE STATES

Since the Court's reasoning in *PPL Montana* was attenuated and relied heavily on the equal footing doctrine,⁷⁵ it has spurred controversy from states over its applicability.⁷⁶ The thirteen original states believe that the Court's holding does not apply to them because the equal footing doctrine is directed at states who gained admission to the Union after the revolution and the transfer of property rights that occurred in that process.⁷⁷

⁶⁶ *Id.* at 593.

⁶⁷ *Id.* at 593, 597.

⁶⁸ *PPL Montana*, 565 U.S. at 596.

⁶⁹ *Id.* at 595–96.

⁷⁰ *Id.* at 594–95.

⁷¹ *Id.* at 595.

⁷² *Id.* at 595–96. These practical considerations, however, have come under fire by some legal scholars as being irrelevant and ill-founded. Lipinski, *supra* note 1, at 269.

⁷³ *PPL Montana, LLC v. Montana*, 565 U.S. 576, 597, 599–600 (2012).

⁷⁴ *Id.* at 600.

⁷⁵ *See id.* at 593–95.

⁷⁶ *N.C. Dep't of Admin. v. Alcoa Power Generating, Inc.*, 853 F.3d 140, 148–50 (4th Cir. 2017).

⁷⁷ *Id.*

Because of this, and the fact that property law is a creature of state law,⁷⁸ the Court's holding in *PPL Montana* has not been readily adopted by the states.⁷⁹ This section of the Note will begin by addressing the current variety of state law concerning the navigability-for-title test. Next, the Note will present an argument for the adoption of the segmented approach to navigability-for-title determinations, as outlined in *PPL Montana*, by all states.

A. *Variety of Navigability-for-Title Tests in State Common Law*

Since navigability is a function of property law and property law is the domain of the individual states, navigability-for-title tests vary from state to state.⁸⁰ Some states, such as Virginia, have developed their tests through a combination of state statute and common law.⁸¹ Other states, such as Pennsylvania, have developed their test primarily through common law.⁸²

Additionally, states differ to the extent their tests are aligned with the federal standard.⁸³ This is evidenced most clearly through the reasoning of state courts in reaching their holdings in individual cases.⁸⁴ Some states, such as Pennsylvania, have adhered rather closely to federal tests.⁸⁵ Other states have done this to a much lesser degree.⁸⁶

Pennsylvania and Virginia serve as illustrative examples of both of these points.

1. Pennsylvania

The Supreme Court of Pennsylvania's decision in *Cleveland & P.R. Co. v. Pittsburgh Coal Co.* established the navigability test under Pennsylvania state law.⁸⁷ This test follows the pre-*PPL Montana* federal test of navigability-in-fact and determines navigability based on a stream's "ordinary condition, as highways for commerce, over which trade or

⁷⁸ *Loving v. Alexander*, 745 F.2d 861, 868 (4th Cir. 1984).

⁷⁹ *See Alcoa*, 853 F.3d at 148–50.

⁸⁰ *McElwee & McElwee*, *supra* note 17, at 401–02.

⁸¹ *Id.* at 409–14.

⁸² *Id.* at 403–07.

⁸³ *Id.* at 401–03.

⁸⁴ *See infra* notes 88–102 and accompanying text.

⁸⁵ *See infra* notes 88–95 and accompanying text.

⁸⁶ *See infra* notes 97–102 and accompanying text.

⁸⁷ *Cleveland & P.R. Co. v. Pittsburgh Coal Co.*, 176 A. 7, 8–10 (Pa. 1935).

travel are or may be conducted in the customary modes of trade and travel on water.”⁸⁸

The Pennsylvania Supreme Court addressed navigability again in *Lehigh Falls Fishing Club v. Andrejewski*.⁸⁹ In *Lehigh Falls*, the determination of an exclusive fishing right existing in the riparian landowner was contingent upon the navigability of the Lehigh River.⁹⁰ The Court analyzed precedent that proved the Lehigh River navigable and held that an exclusive fishing right did not exist in the riparian landowner.⁹¹ The appellant contended that the portion of the river adjacent to their land was non-navigable and, therefore, a public right to fish did not exist in that portion of the river.⁹² The court rejected this theory and stated “[r]ivers are not determined to be navigable on a piecemeal basis. It is clear that once a river is held to be navigable, its entire length is encompassed.”⁹³ However, no citation to any precedent or scholarship was used in rejecting the segmented approach to navigability determinations.⁹⁴ Additionally, no cases since have cited this language in *Lehigh Falls*.⁹⁵

2. Virginia

Unlike Pennsylvania and many other states, Virginia’s case law on navigability is unclear and difficult to interpret.⁹⁶ A litany of case law between 1805 and 1996 attempted to clarify Virginia’s definition of navigability as well as whether any statutes preempted existing case law.⁹⁷ Additionally, until the Virginia Supreme Court’s decision in *Kraft v. Burr* in 1996, the definition of “navigability” was not articulated well by the court and was extremely unclear.⁹⁸ For example, in *Commonwealth v. Morgan*, the Virginia Supreme Court held that a transfer of rights to the bed of Carter Cove was valid but did not determine whether the Cove was navigable or not.⁹⁹ In *Kraft v. Burr*, the same court determined that

⁸⁸ *Id.* at 9 (quoting *The Daniel Ball*, 77 U.S. 557, 563 (1870)).

⁸⁹ *Lehigh Falls Fishing Club v. Andrejewski*, 735 A.2d 718, 719 (Pa. Super. Ct. 1999).

⁹⁰ *Id.* at 719.

⁹¹ *Id.* at 722.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ See *Lehigh Falls Fishing Club*, 735 A.2d at 772.

⁹⁵ See *id.*

⁹⁶ McElwee & McElwee, *supra* note 17, at 409.

⁹⁷ *Id.* at 409–13.

⁹⁸ *Id.* at 413.

⁹⁹ *Commonwealth v. Morgan*, 303 S.E.2d 899, 901–02 (Va.1983).

a similar transfer of rights to a riverbed was valid for a non-navigable stream.¹⁰⁰ Much of the confusion in Virginia law comes in interpreting statutes from the late 1700s and early 1800s in the context of the preceding English common law and the subsequent Virginia common law.¹⁰¹ The finer details of these relationships are beyond the scope of this Note's discussion, but still function well as an illustration of how Virginia law incorporates different considerations than federal navigability law.¹⁰²

As the examples of Pennsylvania and Virginia illustrate, disparity exists amongst the navigability tests of the states, even among those of the original colonies.¹⁰³ Therefore, changes in the federal standard created by *PPL Montana* would have varying effects on state law navigability tests.¹⁰⁴

B. *Argument in Favor of National Applicability*

A large variety exists between navigability law of the several states.¹⁰⁵ There are also clear differences between state and federal law.¹⁰⁶ The applicability of the federal standard to all states could solve many problems of clarity that plague the common law of the states. Given the Court's reasoning and use of the equal footing doctrine in *PPL Montana*,¹⁰⁷ it seems that the segmented approach is applicable in federal court but may not be in state court if state law has not promulgated that portion of the navigability-for-title test.¹⁰⁸ Therefore, in order for the test to gain nationwide applicability, each state would need to choose to adopt the segmented approach for navigability determinations.

The segmented approach to navigability determinations should apply to all states in the union. States should readily adopt the standard because (1) the underlying purpose of the equal footing doctrine supports

¹⁰⁰ *Kraft v. Burr*, 476 S.E.2d 714, 717 (Va. 1996); *see also* *Boerner v. McCallister*, 89 S.E.2d 23, 26–27 (Va. 1955).

¹⁰¹ *McElwee & McElwee*, *supra* note 17, at 414. *See also* VA. CODE ANN. § 28.2-1200 (2019).

¹⁰² For further analysis of these issues, *see* *McElwee & McElwee*, *supra* note 17, at 409–14.

¹⁰³ *See supra* notes 88–103 and accompanying text.

¹⁰⁴ While this Note presents arguments for general state adoption of the federal standard, it is recognized that individualized impacts on each state could differ due to the variances in state navigability law.

¹⁰⁵ *McElwee & McElwee*, *supra* note 17, at 403–27.

¹⁰⁶ *Id.* at 401–03.

¹⁰⁷ *PPL Montana, LLC v. Montana*, 565 U.S. 557, 593–603 (2012).

¹⁰⁸ *See* *N.C. Dep't of Admin. v. Alcoa Power Generating, Inc.*, 853 F.3d 140, 146–50 (4th Cir. 2017).

a nationwide application of the test; (2) states, even some original states, have adopted and applied the federal standard of navigability long before the *PPL Montana* holding; and (3) continuity of law across jurisdictional boundaries would more closely resemble the characteristics of the resources to which it is applied and would promote effective and predictive use of said resources.

1. Premise of the Equal Footing Doctrine

States, scholars, and practitioners have argued that the segmented approach to navigability-for-title determinations set forth in *PPL Montana* should not apply to the thirteen original states.¹⁰⁹ They believe the equal footing doctrine, which served as the backbone of the Court's reasoning for the segmented approach,¹¹⁰ does not apply to the original states.¹¹¹

It is precisely *because* the Court used the equal footing doctrine in its reasoning for establishing the segmented approach to navigability determinations that the test should apply to all states in the Union.¹¹² The purpose of the equal footing doctrine was to ensure states newly admitted to the Union were given the same amount of power as those that formed the Union after the Revolution.¹¹³ All states were to be treated equally with no individual state receiving preference or asserting power over another.¹¹⁴ In order to keep to the principles of the doctrine, the segmented approach should be applied, without discrimination, to all states.

So far, the issue of the equal footing doctrine's influence on the original states has come up in the lower courts on one occasion. In *Alcoa*, the state of North Carolina challenged Alcoa Power Generating's ownership of a portion of the Yadkin River.¹¹⁵ The district court had ruled in favor of Alcoa and North Carolina appealed.¹¹⁶ The Fourth Circuit heard the case and was asked to determine (1) whether navigability was a federal question in terms of subject matter jurisdiction,¹¹⁷ and (2) whether the lower court had accurately determined navigability.¹¹⁸ The court rejected

¹⁰⁹ *Id.* at 148; Lipinski, *supra* note 1, at 269.

¹¹⁰ *PPL Montana*, 65 U.S. at 593–603.

¹¹¹ *Alcoa*, 853 F.3d at 148; Lipinski, *supra* note 1, at 269.

¹¹² *See PPL Montana*, 565 U.S. at 593–94.

¹¹³ *Alcoa*, 853 F.3d at 148.

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 143–44.

¹¹⁶ *Id.* at 144.

¹¹⁷ *Id.* at 146.

¹¹⁸ *Alcoa*, 853 F.3d at 146.

the argument that the Supreme Court's only basis for federal jurisdiction in *PPL Montana* was based on the Court's use of the equal footing doctrine and that such doctrine would not apply to the thirteen original states.¹¹⁹ In its reasoning, the Fourth Circuit interpreted federal precedent as well as *PPL Montana* to find that the source of federal jurisdiction for navigability determinations lied in the issue of separation of powers between the states and the United States that occurred at the time of the state's creation.¹²⁰ In particular, the Fourth Circuit noted "its position is irreconcilable with the tenets of the Equal Footing Doctrine itself, which was designed to ensure that the new States enter the Union with 'the same rights . . . as the original states.'"¹²¹

It is clear from both the Fourth Circuit's reasoning in *Alcoa* and the underlying principles of the equal footing doctrine that states have no position in using the equal footing doctrine as a justification for rejecting the Court's segmented approach to navigability-for-title determinations.¹²² In fact, the equal footing doctrine line of reasoning should encourage states' adoption of the segmented approach.

2. Promulgation of Federal Standard

States have been reluctant to accept that the segmented approach to navigability-for-title determinations set forth in *PPL Montana* is applicable to all states in the Union.¹²³ Alternatively, states would prefer to utilize their own tests established through state common law.¹²⁴

Many states have looked to federal standards and tests in adopting state common law principles to guide navigability determinations.¹²⁵ In doing so, these states, which include many of the original states, have promulgated the federal standards either piecemeal or in their entirety.¹²⁶ As discussed above, Pennsylvania serves as one example of a state that has promulgated federal navigability standards in their entirety.¹²⁷ Other states, such as Virginia, have developed a hybrid version

¹¹⁹ *Id.* at 148–50.

¹²⁰ *Id.*

¹²¹ *Id.* at 149 (quoting *Pollard's Lessee v. Hagan*, 44 U.S. 212, 230 (1845)).

¹²² *Id.* at 148–50. *See also supra* notes 43–54 and accompanying text.

¹²³ *Alcoa*, 853 F.3d at 148.

¹²⁴ *Id.*

¹²⁵ *Boerner v. McCallister*, 89 S.E.2d 23, 26–27 (Va. 1995); *McElwee & McElwee supra* note 17, at 403–27.

¹²⁶ *McElwee & McElwee supra* note 17, at 403–27.

¹²⁷ *See supra* notes 88–96 and accompanying text.

of state navigability law that includes some aspects of the federal standard.¹²⁸ These federal influences were further disseminated when states such as Kentucky and West Virginia were annexed out of the state of Virginia and utilized Virginia common law as a basis for their own.¹²⁹

Since state adoption of federal standards has occurred at least in part, federal courts applying navigability-for-title tests over ownership issues within a state may justify applying the federal standards for navigability determinations. With federal courts applying federal law and state courts applying state law to the same issue, a jurisdictional difference that has been deemed unacceptable would occur.¹³⁰ Therefore, state adoption of the federal segmented approach to navigability-in-fact determinations would resolve an untenable paradigm of jurisdictional disparity.

3. Predictability of Resource Use

A common argument brought by opponents of the segmented approach lies in its applicability.¹³¹ Opponents assert that rivers and streams are contiguous bodies of water that cannot be dissected in ways that make a segmented approach to navigability determinations efficient or effective.¹³² Because of this, viewing the river or stream as a whole in making navigability-for-title determinations is preferable in many instances.¹³³ Furthermore, they believe states are in the best position to determine whether or not a segmented approach would be effective in their jurisdiction based on the physical properties of the waterways.¹³⁴

While there is no doubt that rivers and streams are unique in that they are contiguous, it is this precise characteristic that makes national application of the federal standard preferable. Many rivers traverse jurisdictional boundaries.¹³⁵ As discussed above, states' navigability tests differ greatly.¹³⁶ If each jurisdiction was free to impose their own standard on navigability-for-title determinations, use management of the river and the riverbeds would be extremely challenging.¹³⁷ A standard that has the

¹²⁸ See *supra* notes 97–103 and accompanying text.

¹²⁹ McElwee & McElwee, *supra* note 17, at 414–27.

¹³⁰ N.C. Dep't of Admin. v. Alcoa Power Generating, Inc., 853 F.3d 140, 149 (4th Cir. 2017).

¹³¹ Lipinksi, *supra* note 1, at 269.

¹³² *Id.*

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ S. Whittmore Boggs, *Problems of Water-Boundary Definition: Median Lines and International Boundaries Through Territorial Waters*, 27 GEOGRAPHICAL REV. 445, 445 (1937).

¹³⁶ See *supra* notes 88–103 and accompanying text.

¹³⁷ David Tickner et al., *Managing Rivers for Multiple Benefits—A Coherent Approach to*

ability to add continuity to the law, especially in governance of a multi-jurisdictional resource, should be readily adopted. The use of such standard could aid in the management and use of the river or stream by adding a level of predictability to an area of law that has otherwise been largely vague and unclear.

IV. POLICY IMPLICATIONS OF NATIONAL APPLICABILITY OF THE FEDERAL STANDARD

Streambed ownership, and the determination thereof, impacts many facets of policy creation and economic markets.¹³⁸ In making determinations of ownership, it is important to recognize the rights, and covenants that follow, which will be impacted.

A. *Energy Production*

As noted in many of the aforementioned cases, streambed ownership has a substantial interplay with the production and transportation of energy.¹³⁹ Of great prominence is the distribution of oil and gas royalties.¹⁴⁰ As energy companies extract these resources from beneath streams and rivers, payment in the form of royalties is given to the owners of land in which the minerals lie.¹⁴¹ Many states have streambed leasing policies

Research, Policy and Planning, FRONTIERS ENV'T. SCI. 1 (2017) (explaining how rivers need to be managed comprehensively to achieve multiple benefits); *The River Management Society*, RIVER MGMT. SOC'Y, <https://www.river-management.org/about-us> [<https://perma.cc/FF6V-NVDA>] (last visited Nov. 24, 2020) (stating the organization's promotion of "holistic river management"). See also Scott Dance, *Maryland Gov. Hogan Seeks Lawsuit Against Pennsylvania, EPA over Lagging Chesapeake Bay Cleanup Efforts*, BALT. SUN (Jan. 8, 2020), <https://www.baltimoresun.com/news/environment/bs-md-chesapeake-epa-enforce-ment-lawsuit-20200108-td2bhcbkkanvdwo4azqvv6mey-story.html> [<https://perma.cc/DT88-EPK7>] (illustrating the potential unrest caused by unclear expectations of resource management amongst states); Wallace McKelvey, *Is Pennsylvania the 'Broken' Link When it Comes to Curbing Water Pollution?*, PENNLIVE (May 29, 2019), <https://www.pennlive.com/news/2019/05/is-pennsylvania-the-broken-link-when-it-comes-to-curbing-water-pollution.html> [<https://perma.cc/985J-L6C4>] (illustrating how a resource needs to be managed consistently across jurisdictional boundaries).

¹³⁸ See *infra* notes 140–58 and accompanying text.

¹³⁹ *PPL Montana, LLC v. Montana*, 565 U.S. 576, 586–89 (2012) (factual issue involved royalties from hydropower); *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 398 (1940) (factual issue involved a hydroelectric dam); *N.C. Dep't of Admin. v. Alcoa Power Generating, Inc.*, 853 F.3d 140, 144–45 (4th Cir. 2017) (factual issue involved power generation).

¹⁴⁰ *PPL Montana*, 565 U.S. at 586–89.

¹⁴¹ See Mary Cusick and Amy Sisk, *Royalties: Why Some Strike it Rich in the Natural Gas*

that articulate which streams and rivers are owned by the state, how to require approval for drilling under these waterways, and instructions on how to execute payment of royalties.¹⁴² Because the segmented approach would make a greater number of navigability determinations on any given stream or river, there is a chance that states could have ownership to less of the stream beds than previously believed and private ownership would increase. Altering the amount of submerged lands the state claims ownership to could ultimately decrease the amount of royalties it is able to collect from energy producers.¹⁴³ On the other hand, this would disperse royalty income to a greater number of riparian owners, resulting in a more equitable outcome aligned with the tradition of private property rights.¹⁴⁴

B. Pollution Remediation

Another interesting policy implication occurs in the remediation of pollution. Some pollutants, such as mercury, have a remediation best management practice that requires them to be left and contained in place for purification through natural processes.¹⁴⁵ In the case of water pollution, this results in the owner of the streambeds acquiring ownership of the pollutant.¹⁴⁶ If the segmented approach to navigability determinations is adopted in a state that did not previously have it, the navigability-for-title determinations of certain segments of the stream could result in a transfer of title of pollutants.¹⁴⁷ If ownership of the streambed were to transfer from the state to a private riparian owner, for example, would the remediation responsibility of the contained pollutant also transfer? The

Patch, and Others Strike Out, STATEIMPACT PA. (Feb. 28, 2018), <https://stateimpact.npr.org/pennsylvania/2018/02/28/why-some-strike-it-rich-in-the-gas-patch-and-others-strike-out/> [<https://perma.cc/W97E-AWEE>].

¹⁴² *PA Streambed Leasing Policy*, *supra* note 2; *Subaqueous Guidelines*, VA. MARINE RES. COMM'N, https://mrc.virginia.gov/regulations/subaqueous_guidelines.shtm [<https://perma.cc/3WZX-KYAC>] (last visited Nov. 24, 2020).

¹⁴³ See *PA Streambed Leasing Policy*, *supra* note 2.

¹⁴⁴ See Jon Hurdle, *Court to Decide if Nearly \$400 Million in State Oil and Gas Bonuses Fund Conservation*, STATEIMPACT PA. (July 4, 2017), <https://stateimpact.npr.org/pennsylvania/2017/07/04/advocate-says-state-should-use-oil-gas-lease-revenue-to-fund-conservation/> [<https://perma.cc/F2W5-MJJ7>] (serving as an example of how royalties left to the state may not always be spent in a way that directly benefits the natural resource).

¹⁴⁵ Wang et al., *supra* note 3, at 330–31; PAUL M. RANDALL, EPA, MANAGEMENT OF MERCURY POLLUTION IN SEDIMENTS: RESEARCH, OBSERVATIONS, AND LESSONS LEARNED 1–6 (Jan. 27, 2006).

¹⁴⁶ See RANDALL, *supra* note 145, at 1–6.

¹⁴⁷ See *id.*

answer to this question is beyond the scope of this Note, as it would require more analysis than space allows. However, if it is assumed the answer to the above question is “yes” and such situation were to arise, there are means of addressing this outside of the legal realm. Both the federal government and many state governments have grant funding and remediation programs in place to assist individuals with pollution remediation.¹⁴⁸ Additionally, in the case of mercury, some of these pollutants require no or limited affirmative action on behalf of the owner of the streambed for remediation efforts.¹⁴⁹ While states are inundated with pollution remediation needs across great geographical areas, individual property owners may serve as a more motivated and consistent proponent of remediation efforts.¹⁵⁰ This is all to say, though there may be undesirable implications of a segmented approach to navigability determinations, there are policy approaches that can limit these unfortunate instances while still promoting the numerous benefits of the segmented approach.

C. Public Rights

Perhaps of great concern to state legislatures and agencies is how a change in ownership of a streambed, due to adoption of the segmented approach or otherwise, would impact the rights of the public. A prime example of a public rights impact comes in the form of public recreation.¹⁵¹

¹⁴⁸ *Cleanup Grants and Funding*, EPA, <https://www.epa.gov/cleanups/cleanup-grants-and-funding> [<https://perma.cc/3YTD-YJTH>] (last visited Nov. 24, 2020); *Grants, Loans and Rebates*, PA. DEP’T ENV’T PROT., <https://www.dep.pa.gov/Citizens/GrantsLoansRebates/Pages/default.aspx> [<https://perma.cc/WYF9-BUD3>] (last visited Nov. 24, 2020); *Remediation Programs*, VA. DEP’T ENV’T QUALITY, <https://www.deq.virginia.gov/Programs/LandProtectionRevitalization/RemediationProgram.aspx> [<https://perma.cc/428T-EVQG>] (last visited Nov. 24, 2020).

¹⁴⁹ Wang et al., *supra* note 3, at 328–31. For examples of current remediation efforts, see Chelsea Church, *Remediation to Remove Mercury from South River Banks Heads into Final Stretch*, WHSV (Oct. 30, 2019), <https://www.whsv.com/content/news/South-River-remediation-heads-into-final-stretch-564122941.html> [<https://perma.cc/8V7Y-4NNQ>]; Sarah Rankin, *DuPont to Pay \$50M Over Mercury-Contaminated Virginia Rivers*, ASSOCIATED PRESS (Dec. 15, 2016), <https://apnews.com/be362cbf710341c2b84d975906066e4c> [<https://perma.cc/375S-N9T8>].

¹⁵⁰ *Final 2018 305(b)/303(d) Water Quality Assessment Integrated Report*, VA. DEP’T ENV’T QUALITY, [https://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityAssessments/2018305\(b\)303\(d\)IntegratedReport.aspx](https://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityAssessments/2018305(b)303(d)IntegratedReport.aspx) [<https://perma.cc/JLT9-GVQW>] (last visited Nov. 24, 2020). The EPA compiled an 88-page list of impaired waters in Virginia still in need of remediation plans.

¹⁵¹ See Nathan Damweber, *PPL Montana v. Montana: From Settlers to Settled Expectations*, 40 ENV’T L.Q. 163, 187–93 (2013).

When the state owns a streambed, recreational uses that involve the streambed are allowed by any member of the public, subject to the state's regulation.¹⁵² Recreational uses of this type could include fishing (where the participant wades out into the stream or river) or kayaking and canoeing (where participants may need access to the banks of the stream beneath low-water mark for launching and docking of boats).¹⁵³ When the streambed is not owned by the state, such recreational activity is considered a trespass on the land of the riparian owner.¹⁵⁴ States' concern for a segmented approach lies not only with the loss of the public right to recreation, but also with the management of a resource that may not wholly belong to them.¹⁵⁵ This alteration in management could have further impacts on the recreational use of the public.¹⁵⁶ However, these are concerns that could easily be mitigated with public access points from state-owned lands or servitudes, such as easements, with willing riparian owners.¹⁵⁷ Additionally, state legislatures have recognized the potential for such conflicts and have worked to resolve navigability-for-title issues that impact public rights through the legislative and administrative processes.¹⁵⁸ This suggests that a change to the segmented approach for navigability

¹⁵² *Lehigh Falls Fishing Club v. Andrejewski*, 735 A.2d 718, 719–20 (Pa. Super. Ct. 1999); *Boerner v. McCallister*, 89 S.E.2d 23, 24–25 (Va. 1955).

¹⁵³ *See Lehigh Falls*, 735 A.2d at 719–20; *Boerner*, 89 S.E.2d at 24–25.

¹⁵⁴ *Lehigh Falls*, 735 A.2d at 719–20; *Boerner*, 89 S.E.2d at 24–25. *See also Hill v. Warsewa*, No. 18-cv-01710-KMT, 2020 WL 1443594, at *1–4 (D. Colo. Mar. 25, 2020) (dismissed on procedural grounds); Complaint at 60–65, *Hill v. Warsewa* (No. 18-cv-01710-KMT) 2020 WL 1443594, at *1–4 (D. Colo. Mar. 25, 2020); Jason Blevins, *Who Owns the Bottom of the River? Lawsuit Pitting Fisherman Against Landowner on the Arkansas River Could Answer the Question*, DENVER POST (Feb. 3, 2018), <https://www.denverpost.com/2018/02/03/arkansas-river-ownership-roger-hill-mark-warsewa/> [<https://perma.cc/5HQ6-827V>].

¹⁵⁵ Tickner et al., *supra* note 137, at 1 (explaining how rivers need to be managed comprehensively to achieve multiple benefits).

¹⁵⁶ *See id.*

¹⁵⁷ *See Brett French, FWP Proposes New Boat Launch at Controversial Boulder River Site*, BILLINGS GAZETTE (Jan. 6, 2016), https://billingsgazette.com/lifestyles/recreation/fwp-proposes-new-boat-launch-at-controversial-boulder-river-site/article_0e66444b-3c3f-5f39-bd0c-ac23f174a6bb.html [<https://perma.cc/CBN5-6LPQ>]; David McNair, *No Trespassing: Local Angler Loses Fight for Virginia River Rights*, HOOK (Oct. 22, 2012), <http://www.readthehook.com/108488/no-trespassing-local-anglers-looses-fight-virginia-river-rights> [<https://perma.cc/4ATD-GFJU>].

¹⁵⁸ SB 880, Gen. Assemb., Reg. Sess. (Va. 2013) (brought by Senator Deeds to clarify public recreation rights on nontidal rivers in Virginia); *Five-Year Plan FY 2021–2025*, ARIZ. NAVIGABLE STREAM ADJUDICATION COMM'N, <http://www.ansac.az.gov/> [<https://perma.cc/4F4W-34SJ>] (last visited Nov. 24, 2020). *But see* Hadley Barndollar, *Maine AG's Office: Submerged Lands Bill is Unconstitutional*, SEACOASTONLINE (Mar. 13, 2019), <https://www.seacoastonline.com/news/20190313/maine-ags-office-submerged-lands-bill-is-unconstitutional> [<https://perma.cc/L986-FMZB>].

determinations will have no greater negative impact on public recreation than the current approach.

While policy implications of a changed approach in navigability determinations may seem problematic at first glance, it is important to remember that the issues that may occur on a micro scale are likely worth the benefits gained on the macro level.

CONCLUSION

The determination of streambed ownership can have far-reaching consequences. Because of this, the process of determining who owns a streambed should garner much attention. In *PPL Montana*, the Supreme Court added the segmented approach to the navigability-for-title test.¹⁵⁹ Since the Court's reasoning was based on the premise of the equal footing doctrine, the original states claim that the holding does not apply to them and, therefore, they do not need to adopt the segmented approach to their navigability-for-title determinations.¹⁶⁰

This reasoning is flawed and ill-advised. Rather, the states should adopt the segmented approach for several reasons. First, the premise and intent of the equal footing doctrine advocates for equal power amongst the several states.¹⁶¹ Therefore, the original thirteen states should not be exempt from a federal standard that applies to the other thirty-seven states. Next, many states have already promulgated the federal navigability-for-title standard in whole or in part.¹⁶² Adoption of this additional component to the test would provide consistency and aide in federal and state court application of the test.¹⁶³ It would also resolve a jurisdictional disparity and discourage forum shopping.¹⁶⁴ Finally, consistency of navigability-for-title tests amongst all states would aide in management of resources (rivers and streams) that traverse jurisdictional boundaries.¹⁶⁵ Management of said resources can be better coordinated and more effective if the law that applies to them is predictable from state to state.¹⁶⁶

Since streambed ownership can have far-reaching impacts, it is no surprise that a change in the test applied for determination of such

¹⁵⁹ *PPL Montana, LLC v. Montana*, 565 U.S. 576, 593 (2012).

¹⁶⁰ See *supra* notes 110–17 and accompanying text.

¹⁶¹ See *supra* notes 113–23 and accompanying text.

¹⁶² See *supra* notes 124–30 and accompanying text.

¹⁶³ See *supra* notes 124–30 and accompanying text.

¹⁶⁴ See *supra* note 131 and accompanying text.

¹⁶⁵ See *supra* notes 132–38 and accompanying text.

¹⁶⁶ See *supra* note 138 and accompanying text.

would also have policy implications. There is the potential for segments of streams and rivers that have been historically owned by the states to be given over to private ownership by those whose land borders the waterway. Most notably, adoption of the segmented approach would impact the distribution of oil and gas royalties,¹⁶⁷ responsibilities of pollution remediation,¹⁶⁸ and rights of the public to recreational use of the resources.¹⁶⁹ Overall, these changes would bring benefits to many riparian owners.

Regardless of voluntary adoption of the *PPL Montana* standard by states, one thing is certain: the thirty-seven new states will be the first to navigate the policy implications of the segmented approach to navigability determinations. Only time, and court precedent, will tell if their thirteen original comrades will join them on this journey through uncharted waters.

¹⁶⁷ See *supra* notes 141–45 and accompanying text.

¹⁶⁸ See *supra* notes 146–51 and accompanying text.

¹⁶⁹ See *supra* notes 152–58 and accompanying text.