UNCHARTED WATERS: WHERE WATER IS THE BOSS, THE SURFACE ESTATE MUST OBEY, BUT MUST THE MINERAL ESTATE?: *BRIGHAM OIL V. NORTH DAKOTA BOARD OF UNIVERSITY AND SCHOOL LANDS* AND DISPELLING INACCURACIES CAUSED BY THE RIPARIAN DOCTRINES TO OIL AND GAS PRODUCTION APPORTIONMENT UNDER COMMUNITIZATION AGREEMENTS

SHANNON E. ROGERS*

ABSTRACT

This Article explores intricacies and issues of having navigable waterways in the heart of a booming oil and gas extraction industry. This Article explains the potential legal impact riparian doctrines, which are typically associated with the surface estate ownership, can have on mineral estate ownership interests, and the contractual relationships involved in mineral extraction. This Article identifies issues occurring when the riparian doctrines' surface estate-focused policies, are applied to mineral estate leasing practices and the need for different considerations in mineral estate transactions. The first section contains a discussion of *Brigham Oil v. North Dakota Board of University and School Lands*, a case sent back to the North Dakota Supreme Court for final disposition. There is also coverage of the effects of the public trust doctrine on the authority of the State to grant away mineral estate interests in a navigable shore zone; the original balancing interests held by the state and upland riparian land owner to the shore zone; and the impact that N.D.C.C. § 47-01-15 and the impact of North Dakota Supreme Court's interpretation of said statute in *Sprynczynatyk v. Mills*, had in modifying the original balance of interests in the shore zone. When writing this Article the case was still under review by the North Dakota Supreme Court and therefore in an attempt to avoid coming to a solid conclusion on the outcome of *Brigham Oil*, this Article instead focuses on the different areas of law that arise in the determination of the ownership interest in the navigable shore zone mineral estate. However, it is important to note that since this Article went to editing and

* Associate with Camrud, Maddock, Olson & Larson, Ltd. In Grand Forks, North Dakota. Her practice consists of general litigation and transactional real property law. She received her Juris Doctorate degree at the University of Wyoming School of Law, where she graduated with honors and served as Articles Editor for the Wyoming Law Review.

publication the North Dakota Supreme Court in *Reep v. State*, determined that the shore zone royalty interest belongs to the state. In the second half of this Article, an analysis of the use of drafting provisions in mineral leasing agreements and communitization/unitization agreements can fix boundaries of mineral estates to avoid the legal consequences of riparian doctrines. Considering the riparian doctrines at the time of initial leasing or communitization may avoid the legal impacts and uncertainties of the riparian doctrines. This Article also examines theremedial approaches of the courts in apportioning ownership interests of accreted riparian surface estates and an argument for applying an alternative apportionment approach to the correlating mineral estate. This Article uses primarily North Dakota and Montana case law.

I. INTRODUCTION

This Article discusses the impact of the common law doctrines of accretion, erosion, reliction and avulsion, hereinafter "riparian doctrines," on the mineral estate boundaries and the mineral benefits in the context of riparian lands abutting navigable streams. There are two broad topics presented in the analysis part of this Article. First, how the mineral estate is divided between the riparian landowner and the river bed owner, the state. This first discussion focuses on North Dakota law and specifically *Brigham Oil and Gas, Limited Partnership v. North Dakota Board of University and School Lands*.[1] As this Article was written, the case was being argued and considered by the North Dakota Supreme Court. The second part focuses on on the question of whether riparian doctrines, which physically change the surface estate boundaries, may also shift the mineral estate boundaries. In particular, the Article considers problems that can arise for determining payment of royalties under leases included in commutization agreements in which the boundary of lands adjacent to a navigable river have shifted subsequent to the survey conducted prior to the lease because of the riparian doctrines. It asks whether there can be language within the communitization agreement fixing boundaries of the mineral estate as reflected by the surface estate surveyed description at the time of execution; or remedial language clarifying how to calculate royalties accounting for the subsequent boundary changes which are no longer accurately reflected in the surveyed description of the surface estate incorporated by reference. Differences when the mineral rights are severed are also considered. The primary legal analysis is based on case law from Montana and North Dakota.

Generally, the mineral interests reflected in oil and gas leases and communitization agreements are dependent on the surface area. The surface area is based upon accepted survey boundaries contained in the title. The issue in *Brigham Oil* is determining where the boundary divides ownership for the mineral estate. Even after ownership is initially established the established land boundaries may be subsequently altered by riparian doctrines. The importance of including the parties' intent for a

1. 841 N.W.2d 664 (N.D. 2013).

resolution to shifting boundaries is found in the clause "so long as producing . . . ." This clause operates as an opportunity to extend the initial term of the lease. Once production begins, the lease is in its secondary term and royalties will have to be paid. The amount of royalty the operator pays to the mineral interest owner is in large part dependent on the surface area of the tract. A lease, or communitization agreement with such a clause, holds riparian property for an indefinite term, so long as producing. The indefinite term creates the substantial likelihood that a body of water will shift surface boundaries. The surface area acreage is subject to change from shifting boundaries caused by the doctrines of accretion. The doctrines of accretion create uncertainty in accuracy of accounting for royalty payment because the royalty is based on the surface area of the riparian land. Dispelling this uncertainty is the ultimate goal of this Article.

The first section of this Article sets out the basic principles and doctrines necessary for a discussion of the impacts riparian doctrines have on surface and mineral estate boundaries. The second section of this Article discusses the *Brigham Oil* case and the North Dakota controlling North Dakota law behind establishing the mineral estate boundary. The third section discusses the impact the doctrines of accretion have on the established mineral estate boundaries. Additionally, the impacts the doctrines of accretion would have on royalty interests memorialized in oil and gas leases and communitization agreements are explored. The final section provides drafting suggestions and, alternatively, discusses the apportionment methods applied by the courts in lieu of explicit contract provisions, which equitably account for the intent of the contracting parties.

II. THE LAW OF ACCRETION

The impacts of the riparian doctrines on land boundaries are a primary focus for the discussion. The first concept to understand is the usage of water bodies as a demarcation of a land boundary. The context of this analysis is focused on navigable bodies of water in the West. Navigability is an important characteristic because it creates a split ownership situation: the bed is owned by the state while the riparian land is owned by another party.

North Dakota and Montana will be the states primarily discussed, and imagining the characteristics of the Missouri and the Yellowstone rivers and the land surrounding may be helpful. Wyoming does not have any legally defined navigable bodies of water, but because of the substantial amount of mineral estate case law within the jurisdiction, Wyoming is

significant to the discussion. This Article begins with a discussion of terminology.

A. RIVER MEASUREMENT TERMINOLOGY

The boundaries of riparian lands are identified in a survey by the "thread of the river," for nonnavigable bodies of water, or the "meander line," for navigable bodies of water. The thread of the river is determined when the water is in its natural and ordinary stage, at medium height.[2] A nonnavigable river's thread is the center line of the water at its lowest stage.[3]

Meander lines were run primarily to determine the location and area of rivers and lakes.[4] The meander line is run by a surveyor for the purpose of platting the size and extent of a body of water, and in the case of public land patents, the meander line established the boundaries of the riparian tract, and established the quantity of land used for calculating the patent fee.[5] Meander lines were run inaccurately and sometimes fraudulently.[6] For this reason, under federal law, the actual quantity of an upland tract granted by federal land patent, except for fraudulent surveys and swamplands, is not limited to the meander line as run by the surveyor but to the actual shoreline where it exists.[7] The purpose a meander line serves in the patenting of lands is ascertaining the:

> exact quantity of the upland to be charged for and not for the purpose of limiting the title of the grantee to such meander lines. It has frequently been held, both by the federal and state courts that such meander lines are intended for the purpose of bounding and abutting the lands granted upon the waters whose margins are thus meandered; and the waters themselves constitute the real boundary.[8]

In other words, the meander line was used to establish the boundaries of patented land, which were riparian in nature, for determining the total

2. CURTIS M. BROWN ET AL., BOUNDARY CONTROL AND LEGAL PRINCIPLES 200 (John Wiley & Sons, Inc., 3d ed. 1986).

3. *Id.*

4. *Id.* at 278.

5. *See id.* at 200, 278.

6. *Id.* at 278.

7. *See generally* Hardin v. Jordan, 140 U.S. 371 (1891).

8. *Id.* at 380; Foss v. Johnstone, 110 P. 294 (Cal. 1910).

upland acreage to charge to the patentee.[9] Meander lines are not used to determine the tract boundaries. Meander lines do not bound the grantee's title; rather the actual water line serves as the boundary for lands abutting navigable water bodies,[10] and the thread of the river constitutes the actual boundary for riparian lands abutting nonnavigable water bodies.[11]

The meander line or the shoreline can be used in the deed or other conveyance instrument to indicate the boundary for the surface of riparian lands. In absence of contrary intent, the shoreline of navigable waters, not the meander line, is recognized by state and federal courts as the actual and legal surface boundary.[12] When land is conveyed in fee, without any reservation of interest, the surface boundary description also describes the boundary of the mineral estate.[13]

The "bed" of the river is the land that "is covered by water sufficiently long to keep it bare of vegetation and destroy its value for agriculture."[14] Original ownership of the bed and the scope of riparian rights and ownership of the abutting land are determined by navigability. High watermark and low watermark are the specific boundary demarcations for riparian land usage and ownership of a navigable body of water's shoreline. Where a body of water is adjudged navigable, grants of land bordering the navigable water body convey an interest to the ordinary low water mark to the upland owner.[15] However, the riparian owner's rights are not absolute; the state's interest in the bed makes them subject to certain public interests.[16] The shore zone, in between the high and low water marks, for

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9. R.R. Co. v. Schurmeir, 74 U.S. 272, 287 (1868) (holding that the meander lines are a "means of ascertaining the quantity of the land in the fraction subject to sale, and which is to be paid for by the purchaser.").

10. "The patent usually conveys title to the actual water line and not to the meander line; the meander line is determined as a matter of surveying convenience." Bureau of Land Management, *Basic Law of Water Boundaries*, 12 (Nov. 20, 2012), http://www.blm.gov/cadastral/casebook/basicwater.pdf.

11. Faucett v. Dewey Lumber Co., 266 P. 646, 648 (Mont. 1928) ("[t]he general rule adopted by state and federal courts is that meander lines run in surveying fractional portions of the public lands bordering upon navigable bodies of water, are not run as boundaries of the tract, but for the purpose of defining the sinuosities of the banks of the lake or river . . . . The title of the grantee is not limited to such meander lines; *the waters themselves and not the meander lines constitute the real boundary*" (citations omitted; emphasis added)).

12. *Id*.

13. *See* MINERAL ESTATE discussion, *infra* Part II.E.

14. BROWN, *supra* note 2, at 290.

15. State ex rel. Sprynczynatyk v. Mills, 523 N.W.2d 537, 542 (N.D. 1994) (hereinafter *Mills I*; *see* Andersen v. Monforton, 2005 MT 310, ¶ 26, 329 Mont. 460, 468, 125 P.3d 614, 620 (2005) (finding that "Montana statute dictates that unless the grant indicates a different intent, the owner of land bordering upon a navigable stream, takes to the edge of the stream at low-water line. Section 70–16–201, MCA.").

16. *Mills I*, 523 N.W.2d at 542; *see* Coal. for Stream Access, Inc. v. Curran, 682 P.2d 163, 172 (Mont. 1984) (holding that "the public has a right to use the state-owned waters to the point of

purposes of surface use, is not held as an absolute interest by either the state or the upland owner.[17] "Although a riparian landowner may claim absolute ownership of the land above the ordinary high watermark and the state may claim absolute ownership of the land below the ordinary low watermark via the public trust and equal footing doctrines."[18] The result is the riparian owner of the upland holding:

> [a] right of access to and use of such waters; he has the right to accretions and relictions which may attach to such shore; he has the right to use such shore in all ways that he may desire, so long as and with the exception that he does not interfere with or prevent the public from also using or having access to the same for the purposes for which the public has a right to use it, viz., navigating, boating, fishing, fowling, and like public uses. And the state has no right to control or interfere with plaintiff's said use so long as plaintiff does not interfere with said public use.[19]

Ultimately, "[t]he parties' interests in the shore zone are coexistent and overlap," but the right to an alluvium attaching to the shore is vested in the upland owner.[20]

For nonnavigable bodies of water, the riparian owners on either shore own the bed to the common midpoint.[21] Watermark changes for nonnavigable bodies of water have no effect on ownership interests to the bed. On a navigable body of water, when the riparian doctrines cause the watermark to deviate, the ownership interests coincide with the change.[22] Whether the body of water is navigable or nonnavigable is, thus, the starting point of the analysis.

B. NAVIGABILITY FOR TITLE DETERMINATION

"The division of waters into navigable and nonnavigable is but a way of dividing them into public and private waters—a classification which, in some form, every civilized nation has recognized; the line of division being largely determined by its conditions and habits."[23] Determining the navigability of a waterway can be challenging since there are both federal

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the high water mark except to the extent of barriers in the waters."); *accord* State ex rel. Sprynczynatyk v. Mills, 1999 ND 75, ¶ 1, 592 N.W.2d 591, 592 [hereinafter *Mills II*].

17. *Mills I*, 523 N.W.2d at 544.
18. *Id.*
19. *Id.* at 543 (quoting Flisrand v. Madson, 152 N.W. 796, 801 (S.D. 1915)).
20. *Id.* at 544.
21. *See* Kim-Go v. J.P. Furlong Enters., Inc., 460 N.W.2d 694, 697 (N.D. 1990).
22. *Mills II*, ¶ 5, 592 N.W.2d at 592.
23. *Curran*, 682 P.2d at 169.

and state definitions. Only the federal definition is relevant for determining title to the bed. A question of whether title has transferred from federal to state owned must:

> be resolved by the laws of the United States; but that whenever according to those laws, the title shall have passed, then that property, like all other property in the state, is subject to state legislation, so far as that legislation is consistent with the admission, that the title passed and vested according to the laws of the United States.[24]

The federal test for navigability requires that rivers be "navigable in fact" requiring that "they are used or are susceptible of being used in ordinary condition as highways of commerce over which trade and travel are or may be conducted in the customary modes of trade and travel on water."[25]

Another concept establishing state ownership interest in the beds of navigable rivers is the *equal-footing doctrine*. The equal-footing doctrine, as applied by the United States Supreme Court, prescribes that:

> [t]he shores of navigable waters, and the soils under them, were not granted by the Constitution to the United States, but were reserved to the states respectively . . . [t]he new states have the same rights, sovereignty, and jurisdiction over this subject as the original states . . . established the absolute title of the States to the beds of navigable waters, a title which neither a provision in the Act admitting the State to the Union nor a grant from Congress to a third party was capable of defeating.[26]

The equal-footing doctrine provides that the state received title to the beds of navigable river at the time of statehood. After a river is adjudged navigable, the state owns the river bed from the time of statehood. In addition, the equal footing doctrine dictates that the state's application of riparian doctrines controls the legal impacts that navigable waterways have on riparian land boundaries, insofar as it ensures state ownership of the beds of navigable waterways.[27] For purposes of this Article, the analysis assumes that the river abutting property boundaries is adjudged navigable.

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24. Wilcox v. Jackson, 38 U.S. 498, 517 (1839).

25. PPL Montana, LLC v. Montana, 132 S. Ct. 1215, 1228 (2012) (quoting The Daniel Ball, 10 Wall. 557, 563 (1871)).

26. Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co., 429 U.S. 363, 373-74 (1977) (quoting Pollard v. Hagan, 44 U.S. 212 (1845)).

27. *See id.*

C. OWNERSHIP INTERESTS IN THE NAVIGABLE STREAM BEDS

As discussed above, the initial determination of navigability, for purposes of title to bed, is according to federal law.[28] Once adjudged navigable, any further dispossession and changes in land boundaries are governed under state law.[29] After acquisition of the beds of all navigable streams, each state has the right to dispose of the bed as it sees fit, by lease, deed or other conveyance instrument.[30] A state is subject only to public trust limitations in its disposition of its title to the bed.[31]

In North Dakota, the state holds title to the beds of all navigable waters within the state.[32] Where a water line is the boundary of a tract, the water line, "no matter how it shifts, remains the boundary."[33] This is an important riparian boundary characteristic to keep in mind when determining the impact of riparian doctrines on the mineral estate boundaries. In Montana, "*[a]ll* waters are owned by the State for the use of its people."[34] Section 67-302, R.C.M.1947, provides that the State of Montana is the owner of the land underlying navigable waterways, or the bed.[35] Since this Article is focused on the impacts of these doctrines on western states, such as Montana and North Dakota, and because we are assuming navigability of the water bodies, state ownership of the beds is assumed. The next sub-section discusses the impacts of the riparian doctrines on the boundaries and title to land and mineral estates.

D. DEFINING ACCRETIONS, AVULSIONS, EROSIONS AND RELICTIONS

Background on the riparian doctrines, which impact property boundaries, will provide the context for understanding their potential affects on legal title and mineral interests. Water bodies do not have a static character, being fluid in nature. Any changes in the water line would constitute a change in the boundary lines of the riparian lands abutting navigable water bodies. Since property law is a function of state law, state

28. *See Curran*, *supra* note 23 and accompanying text.

29. David A. Provinse, 35 IBLA 221 (1978) ("State may not be divested of title to the bed in favor of an uplands owner by operation of Federal law, but may only divest itself of title through the operation of its own law.").

30. BROWN, *supra* note 2, at 211.

31. *See Mills I*, *supra* note 15 and accompanying text.

32. *Mills II*, ¶ 5, 592 N.W.2d at 592-93.

33. Oberly v. Carpenter, 274 N.W. 509, 513 (N.D. 1937).

34. Galt v. Dep't of Fish, Wildlife & Parks, 731 P.2d 912, 915 (Mont. 1987).

35. Roe v. Newman, 509 P.2d 844, 846 (Mont. 1973) *(*citing United States v. Eldredge, 33 F. Supp. 337 (D. Mont. 1940)).

law determines the impact of these water line changes on the riparian boundary through the application of riparian doctrines.

The primary characteristic of riparian land is access to a navigable or nonnavigable body of water.[36] Riparian ownership and rights exist upon conveyance by legal instrument "if property of an upland owner abuts upon water and there are no words of exclusion in his deed . . . ."[37] However, riparian rights will be denied to the owner of upland property if any strip of land owned by another sits in between the upland property and a body of water.[38] These riparian characteristics apply with equal force to the United States, as a riparian interest holder, as they do to any other private riparian interest holder.[39]

The doctrines of accretion and alluvium refer to the end result of natural causes "by which land forms by imperceptible degrees, by accumulation of material or rescission of the water."[40] The processes of erosion, accretion and reliction can generally be discussed as sub-processes of the doctrine of accretion, while the resulting land is referred to as an alluvium.[41] Reliction leaves land uncovered by the gradual receding of water.[42]

Avulsion is the opposite of accretion in terms of the length of time in which it occurs; it is described as "the sudden and perceptible removal of a considerable quantity of land by water, such as a river changing its course in time of flood."[43] Since avulsion is a more sudden change, and often not permanent, title to the bed of a navigable river exposed by avulsion remains in the original owner, the state.[44] In North Dakota, title to land previously containing exposed river banks, covered by an avulsive change in a navigable river, remains owned by the original riparian landowner.[45] In the event of an avulsive change in the course of the navigable waterway, the

36. *See* BLACK'S LAW DICTIONARY 256 (9th ed. 2009).

37. BROWN, *supra* note 2, at 199.

38. *Id.*

39. *See generally* Oregon ex rel. State Land Bd., 429 U.S. at 378; California ex rel. State Lands Comm'n v. United States, 805 F.2d 857, 864 (9th Cir. 1986).

40. *See* BROWN, *supra* note 1, at 199.

41. *See id.*

42. *Id.*

43. *Id.*

44. *See supra* notes 39-42, 47 for discussion of the difference between an avulsive change and an accreted or relicted change in the bank of a river. Understanding the court's analysis for distinguishing avulsion from accretion is beyond the scope of this Article.

45. *See* J.P. Furlong Enters., Inc. v. Sun Exploration & Prod. Co., 423 N.W.2d 130, 132 (N.D. 1988).

state is entitled to the land previously occupied by the watercourse.[46] The extent of the bed remains fixed even though the actual bed location has changed. Because the ownership remains the same when an avulsion occurs, it does not alter the quantity of riparian land held by the riparian owner nor the river bed held by the state. Since land ownership does not change because of avulsion, it is not addressed in this Article.

Where there is a dispute as to whether land changes resulted from accretion or avulsion, it is the presumption that:

> the changes resulted from accretion or erosion and the land concededly lying between the riparian lots, as surveyed by the government and the present bank of the stream will be presumed to be the result of accretion and not of avulsion. One claiming a change was by avulsion rather than by accretion has the burden of proving the avulsion.[47]

For this Article, the changes caused will be presumed to have occurred by accretion or reliction. As a general rule, when an alluvium is created by one of the doctrines of accretion, "[o]wnership usually resides in the adjoining riparian proprietor."[48] This general rule is followed in all of the states referenced here, North Dakota and Montana.[49]

When an alluvium forms along multiple riparian tracts, a quiet title action is generally commenced to apportion the newly formed shore. The primary concern for apportionment is equitably preserving the riparian nature of the land.[50] A riparian owner has the right of access to the water, and his access cannot be destroyed by the changing levels of the water by gradual recession. The general principle governing the apportionment between the riparian owners of the relicted exposed shoreline is that "any division of the relicted land shall be equitable and shall be proportional so far as to give each shore owner a share of the land to be divided relative to

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46. Roe v. Newman, 509 P.2d 844, 846 (Mont. 1973) (citing United States v. Eldredge, 33 F. Supp. 337 (D. Mont. 1940)).

47. *Roe*, 509 P.2d at 847 (adopting 65 C.J.S. *Navigable Waters* § 86(c); *see also* Dartmouth Coll. v. Rose, 133 N.W.2d 687 (Iowa 1965).

48. 65 C.J.S. *Navigable Waters* § 86(c).

49. *See generally* Wilson v. Lucerne, 150 P.3d 653 (Wyo. 2007); Perry v. Eling, 132 N.W.2d 889 (N.D. 1965); Jackson v. Burlington N. Inc., 667 P.2d 406 (Mont. 1983). In terms of the impacts the doctrines of accretion have on federal lands, the Interior Board of Land Appeals has explicitly acknowledged their impact when they affect a boundary between areas owned by the United States and others. David A. Provinse, 35 IBLA 221, 265 (1978) (emphasis added) (holding that "the doctrines of accretion and reliction are not desirable tools for determining the coverage of oil and gas leases of riparian, accreted and water covered lands *where the entire area is owned by the United States and that they are pertinent only*).

50. *See* Waxman v. Loranger Plastics Corp., 493 A.2d 713, 715 (Pa. Super. Ct. 1985).

his portion of the original shoreline."[51] Riparian owners have the right to preserve contact with the water by appropriating the alluvium of the land exposed by reliction forming along the shore.[52] Alluvium formed by accretion or reliction becomes part of the shore and the riparian owner acquires title to access the water.[53]

There are two methods, logically applicable to this discussion, to apportioning ownership interest of an alluvium between adjoining owners—the state as bed owner and the riparian land owner: (1) the proportionate "Shore-Line Method;" and (2) the Proportionate Acreage Method, or "Acreage Method." The Shore-Line Method's primary goal is to reapportion the newly accreted land so that each riparian owner has the same percentage of water frontage that was formerly held.[54] The Shore-Line Method is presumably used in areas where water frontage is of high value to the property owner, such as highly populated and developed coastal waterways or ocean shores.[55] In terms of the value of mineral estates, the concern for riverfront access is not apparent because most areas where mineral development is occurring, involving navigable river bed leases, are areas where riverfront development is not as highly valued.[56] As will be discussed in further detail, the Acreage Method more accurately apportions a newly formed alluvium to preserve the interests of the mineral estate owner.[57] The crux of this Article concerns the impacts of the riparian doctrines, including apportionment, on mineral estate interests. A discussion of mineral estate characteristics follows.

E. MINERAL ESTATES: SEVERED V. NON-SEVERED MINERAL ESTATES

While the doctrines of accretion can impact the property boundaries on the surface of a riparian tract, these doctrines may also impact the boundaries below the ground. "Cujus est solum, ejus est usque ad cœlum,"

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51. *See* 2 R. PATTON & C. PATTON, PATTON ON TITLES § 302 (2d ed. 1938); 3 H. FARNHAM, THE LAW OF WATERS AND WATER RIGHTS § 841 (1904); 78 AM. JUR. 2D *Waters* § 422–25 (1975).

52. 78 AM. JUR. 2D *Waters* § 418 (1975).

53. *See id.*; JOHN S. GRIMES, CLARK ON SURVEYING AND BOUNDARIES § 573 (4th ed. 1976); 2 RUFFORD G. PATTON & CARROLL G. PATTON, PATTON ON TITLES § 300 (2d ed. 1938).

54. BROWN, *supra* note 2, at 221.

55. *Waxman*, 493 A.2d at 715 (applying the Shore-Line method in apportioning the shore of the Allegheny River).

56. Two examples include: (1) the Missouri River running through the Bakken Shale Play, Wiliston Basin, North Dakota; and (2) the Delaware River running through in the Marcellus Shale Play, Alleghany Plateau Appalachian Basin.

57. *See infra* notes 101-09, and accompanying discussion on the application of the Acreage Method.

is the maxim of the law providing the surface owner control over not only the surface, but also everything "to the sky and to the depths."[58] All of the interests making up an estate held in fee can be transferred, benefited, and burdened separately or in part. By conveyance, an owner of an estate held in fee can divide the property rights. Important for this analysis, an independent grant or reservation of the mineral estate effectively severs the mineral estate from the surface property.[59] This division creates a surface estate owner and a mineral estate owner.[60] The estates may be held by the same person or by different people. When property interests, below and above the surface, are unsevered, held by the same surface owner, the doctrine of accretion does not solely impact the surface boundaries. Accretion changes both the boundary of the surface estate and the mineral estate when not severed. However, there may be some question as to whether, when the mineral estate is severed from the surface estate, any of the severed mineral interests may be burdened or benefited by the doctrines of accretion's impact on the surface boundaries.[61]

Conceptually the mineral estate is not being impacted by the doctrines of accretion; rather, the doctrines of accretion only physically change the land overlying the mineral estate. However, the accretion or erosion of a surface estate ultimately can have significant financial impacts on the amount of royalty paid to the mineral estate or interest holder. Unfortunately, the surface area sitting over an oil or gas play, and subject to change by the doctrines of accretion, is a fundamental factor in calculating the percentage of the production and the correlative rights attributed to the mineral estate. Thus, surface acreage, as described in the underlying lease, is a substantial factor in the allocation of production attributed to the underlying mineral leasehold interests.[62] These considerations exemplify the conundrum of shifting boundaries: how and if the doctrine of accretion should shift the mineral estate boundaries of a severed mineral estate.

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58. Gas Prods. Co. v. Rankin, 207 P. 993, 997 (Mont. 1922); Robert L. Kimball, *Accretion and Severed Mineral Estates*, 53 U. CHI. L. REV. 232, 235 (1986).

59. *See generally* Williams v. Watt, 668 P.2d 620 (Wyo. 1983) (discussing conveyance language held to severe the mineral estate from the surface estate).

60. *Id*. at 622; *see also* Schank v. N. Am. Royalties, Inc., 201 N.W.2d 419 (N.D. 1972).

61. *See Schank*, 201 N.W.2d at 429. Stating "possession of the surface of land is not possession of the severed minerals; that after severance, surface and mineral estates are held by separate and distinct titles in severalty and each is a freeholder estate of inheritance." *Id.* The impact of severance allows the surface estate and the mineral estate to function distinct from the other. The independent nature of severed estates is the basis for questioning whether riparian doctrines, which generally impact the surface estate, should be applied to the mineral estate in the same manner.

62. Shell Oil Co. v. Corp. Comm'n, 389 P.2d 951, 954 (Okla. 1963).

F. MINERAL LEASES AND COMMUNITIZATION AGREEMENTS

Evaluating the impact of riparian doctrines on mineral estates and the further impact on leasing and communitization agreements involving riparian lands requires an inquiry into the communitization process and its impacts on title and mineral interests. An oil and gas lease is a contract, which reflects both express and implied intentions of the parties, the lessee and lessor.[63] Consideration is a requirement in all contract formation, along with offer and acceptance; in oil and gas leases consideration is generally reflected by royalty interest exchanged for the privilege to develop the mineral estate.[64] A royalty is:

> compensation or consideration a lessee pays to the lessor to secure the privilege of exercising the right to explore and develop the property for the production of oil and gas. The nature of a 'royalty' allows the lessee to avoid paying the lessor up front for the privilege of exploration, and to defer payment of 'consideration' upon an *eventual* yield accruing from the lessee's production efforts.[65]

Parties to an oil and gas lease generally contract for the possibility of future production, in the lessee's favor, and the possibility of royalties, in the lessor's favor.[66] Oil and gas leases are the underlying documents to a communitization agreement, and a communitization and the underlying lease are to be read as forming a common contractual scheme.[67]

Communitization is the "bringing together of two or more tracts to form a drillsite in connection with a program of uniform well spacing in order to develop lands as if they were under a single lease."[68] Commonly, communitization (such as "unitization" or "pooling") is "statutory." Separate mineral interests are "pooled" together in order to comply with

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63. State v. Moncrief, 720 P.2d 470, 473 (Wyo.1986); *accord* Irish Oil & Gas v. Riemer, 2011 ND 22, ¶ 15, 794 N.W.2d 715, 719-20.

64. *See Irish Oil & Gas*, ¶ 22, 794 N.W.2d at 721. *See also* Whitham Farms, LLC v. City of Longmont, 97 P.3d 135, 137 (Colo. App. 2003) ("The primary consideration in [oil and gas] lease transactions is the royalty derived from the development of the resources"); Cheyenne Mining & Uranium Co. v. Fed. Res. Corp., 694 P.2d 65, 74 (Wyo. 1985) ("A number of courts have held that a conveyance of a mineral interest in consideration of royalties on production amounts to a lease . . . ."); 58 C.J.S. *Mines & Minerals* § 280 (2009) (stating a promise to develop the leased property and pay royalties is sufficient as consideration for an oil and gas lease).

65. *Irish Oil & Gas*, ¶ 22, 794 N.W.2d at 721 (quoting Davis v. Meagher Oil & Gas Props., Inc., No. 08-1638, 2010 WL 819403, at *3 n.1 (W.D. La.) (W.D. La. Mar. 4, 2010).

66. *Id.* at 721.

67. Wolff v. Belco Dev. Corp., 736 P.2d 730, 732 (Wyo. 1987).

68. Buddy Cotton, *The Basics of Pooling and Unitization in Oil and Gas Leases*, *MINERAL RIGHTS FORUM* (Feb. 8, 2010), *available at* http://www.mineralrightsforum.com/profiles/blogs/the-basics-of-pooling-and (last visited on Nov. 11, 2012).

conservation statutes.[69] By communitization, all of the tracts are developed as if they are under one lease. When federal public lands are involved, section 226(j) of the Mineral Leasing Act permits commitment of lands within a federal lease to a communitization agreement providing for apportionment of production or royalty among the separate tracts of land.[70]

Communitization does not have the effect of "cross-conveyancing" property interests in land; rather, it merely has the effect of apportioning production, not proceeds, to the lease.[71] Generally communitization agreements seek to apportion the production amongst the communitized leases based on surface acreage. The surface estate substantially controls the calculation of royalty payments, rental payments and the division of royalty payments in a communitized (or unitized) pool.[72] Therefore, division and an accurate accounting of acreage are significant interests to both the lessor, owner of the severed or unsevered mineral estate, and the lessee, the drilling company or oil and gas operator.

The royalty paid under a communitization agreement is determined by an algorithm that takes into account a number of factors, but the royalty payment is dependent on surface acreage committed. In *Shell Oil Company v. Corporation Commission*,[73] commonly referred to as "Blanchard," the petitioner obtained clarification of the communitization order to establish and protect his royalty interest.[74] The court held that each lessor was entitled to receive "*in the ratio that his acreage bears to the unit* . . . royalty in gas or in the proceeds from the sale of the gas, *as his lease may require*."[75] This holding has resulted in the general rule for royalty payments, when a communitization agreement is in effect, that the "lessors

69. Conservation statutes restrict property rights to develop an owner's mineral estate (whether they are established according to ownership-in-place theory or non-ownership theory). Conservation statutes are developed by a State's oil and gas commission (or similarly titled governing group). Most conservation statutes provide for spacing regulations, which restrict the number of wells that can be drilled within a specific number of acres. Wolff, 736 P.2d at 731 (quoting ROCKY MOUNTAIN MINERAL LAW FOUNDATION, LAW OF FEDERAL OIL & GAS LEASES § 18.01[2] (1986), for the definition of "communitization" as: "Communitization, or pooling as it is usually called where nonfederal lands are involved, is the agreement to combine small tracts for the purpose of committing enough acreage to form the spacing and proration unit necessary to comply with the applicable state conservation requirements."). *Id.*

70. 30 U.S.C. § 226(j) (2012).

71. Moncrief v. DOI, Docket No. C87-1070J (D. Wyo. Sept. 18, 1989).

72. *Id.*; *see also* BUREAU OF LAND MANAGEMENT, COMMUNITIZATION HANDBOOK, *available at* http://www.blm.gov/pgdata/etc/medialib/blm/ut/lands_and_minerals/oil_and_gas.Par.27827.File.dat/CA-HANDBOOK.pdf (last visited Mar. 3, 2014).

73. 389 P.2d 951 (Okla. 1963).

74. *Shell Oil Co.*, 389 P.2d at 954.

75. *Id.* (emphasis added).

of land participating in a unit agreement share in royalties from the *unit based upon the number of acres committed to them by the unit*."[76]

The basis for apportionment is completely reliant on the number of surface acres actually owned at the time the communitization agreement is executed.[77] Each tract within the communitized area is allocated production based on the number of acres in said tract, divided by the total acreage of the communitized area, times the production of communitized substances.[78] Parties to a communitization agreement will negotiate the calculation method for the division of production, but the surface acreage held by each party is not generally up for negotiation as it is usually incorporated by reference to the underlying lease. For these reasons, the changes in surface acreage caused by riparian doctrines can have a significant financial impact for the owners of the underlying tracts.

III. *BRIGHAM OIL AND GAS V. NORTH DAKOTA BOARD OF UNIVERSITY AND SCHOOL LANDS*: WHO HOLDS TITLE TO THE "SHORE-ZONE" MINERAL ESTATE?

This case, currently under review by the North Dakota Supreme Court, addresses the issue of mineral estate ownership in the "shore zone." The following discussion sets out the law and discusses its application to the issue. The author does not intend to take a stance on which outcome is correct. Rather, the author's intent is to present the possible arguments and considerations of the issue.

A. *MILLS V. SPRYNCZYNATYK*

A 1994 decision from the North Dakota Supreme Court, by interpreting North Dakota Century Code title 47 chapter 1 section 15, altered the general ownership interests in the shore zone.[79] Title 47 chapter 1 section 15 states:

> Except when the grant under which the land is held indicates a different intent, the owner of the upland, when it borders on a navigable lake or stream, takes to the edge of the lake or stream at

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76. Anadarko Prod. Co. v. Taylor, 535 F. Supp. 103, 110 (D. Kan. 1982) (emphasis added) (citing Cook, *Rights and Remedies of the Lessor and Royalty Owner Under a Unit Agreement*, Third Annual Institute on Oil and Gas Law and Taxation 111 (1952)).

77. *See supra* notes 65-67 and accompanying text.

78. Angela L. Franklin, COMMUNITIZATION AGREEMENTS IN THE 21ST CENTURY, 2006 No. 4 RMMLF-INST Paper No. 3. "For example, if the proration unit for the communitized formation is 320 acres and Tract A contains 40 acres, the allocation of production to Tract A is 40/320 times the production of communitized substances; in other words, Tract A is allocated 12.5% of the communitized production."

79. *See generally Mills I*, 523 N.W.2d at 537.

> low watermark. All navigable rivers shall remain and be deemed public highways. In all cases when the opposite banks of any stream not navigable belong to different persons, the stream and the bed thereof shall become common to both.[80]

The court determined the statute was a statute of construction that establishes "the boundary for grants of riparian land and is not itself an absolute grant of ownership to the low watermark."[81] The court went on to declare that the "takes" was ambiguous.[82] Because of the ambiguity the court turned to "extrinsic aids" to assist the determination of the impact of the statute.[83] The court first examined another North Dakota statute authorizing the legislature to "regulate 'ownership' below the ordinary low watermark of navigable waters," as well as its corresponding New York Field Code provision and New York case law interpreting the statute.[84] The effect of the North Dakota statute and corresponding New York case law led the court to conclude that the effect of 47-01-15 was "a rule of property for determining boundaries, grants of land bordering on navigable waters convey the granted interest to the low watermark, unless otherwise limited by the terms of the grants."[85] Thus, the court held that under North Dakota Century Code section 47-01-15, "as a rule for interpreting conveyances, a riparian grantee 'takes' the interest that is granted in the conveying instrument to the low watermark, which is the boundary of the grantee's interest."[86]

However, a grant of riparian land could not convey absolute title between the low and high watermark. Rather, the existence of certain public rights above the low water mark impaired the absoluteness of the upland riparian owner's interest below the high watermark. The court acknowledged the equal footing doctrine and public trust doctrines as impediments on a grantee's absolute interest.[87] Again turning to other

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80. N.D. CENT. CODE § 47-01-15 (2012).

81. *Mills I*, 523 N.W.2d at 542.

82. *Id.* at 540-41 ("'Takes' has many shades of meaning which depend on the circumstances in which it is used . . . . The precise meaning of 'takes,' and the type of interest the upland owner 'takes' to the low watermark is unclear.").

83. *Id.* at 540.

84. *Id.* at 541; St. Lawrence Rail Road Co. v. Valentine, 19 Barb. 484 (N.Y. App. Div. 1853).

85. *Mills I*, 523 N.W.2d at 542.

86. *Id.* at 543. "We agree with the district court that N.D.C.C. § 47–01–15 is a rule of construction for determining the boundary for grants of riparian land and is not itself an absolute grant of ownership to the low watermark." *Id.* at 542.

87. *Id.* at 543 (acknowledging that these doctrines "establish that the State cannot totally abdicate its interest to the high watermark, and that a riparian landowner's interest to the low

courts' interpretations of similar statutory language, the court determined that the State's and the upland riparian owner's rights to the "shore zone" are coexistent.[88] Such an interpretation results in the upland riparian owner retaining absolute title to the high watermark and the State retaining absolute title in the bed between the two low watermarks, while the "shore zone" interests overlap.[89] The court characterizes the coexistent interests as correlative rights.[90] Unfortunately, the court did not detail the nature of the specific rights held by each party, merely stating that "[u]nder the public trust and equal footing doctrines the State has interests in the shore zone, which involve more than a navigational servitude . . . ." Under North Dakota Century Code section 47–01–15, a riparian owner "'takes' more than the mere right of access to the water."[91] Additionally, since there was no specific use of the shore zone being challenged in *Mills I* the court was without claim or controversy and determined that "[t]he shore zone presents a complex bundle of correlative, and sometimes conflicting, rights and claims which are better suited for determination as they arise."[92] The *Mills I* case left undefined the specific rights to usage and development in the shore zone.

B. *BRIGHAM OIL AND GAS*

Brigham Oil and Gas, Limited Partnership v. North Dakota Board of University and Schools Lands[93] presents the kind of actual controversy respecting use of the shore zone the *Mills I* court's eluded too.[94] The Brigham Oil and Gas Company filed an interpleader action, naming the State of North Dakota and numerous riparian land owners as defendants, seeking declaratory judgment on the ownership rights to mineral estates in and under the "shore zone" of the Missouri River.[95] Both the State of North Dakota Board of University and School Lands and the riparian land owners claimed rights to the minerals in and under the "shore zone," and each had

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watermark is not absolute."). *See also* N.D. CONST. art. XI, § 3; Don Negaard, *The Public Trust Doctrine in North Dakota*, 54 N.D. L. REV. 556 (1977–78).

88. *Mills I*, 523 N.W.2d at 543 ("neither the State nor riparian landowners have absolute title in the shore zone and that both parties have correlative interests in the area.").

89. *Id.* at 544.

90. *Id.*

91. *Id.* (internal citations omitted).

92. *Id.*

93. 866 F. Supp. 2d 1082 (D.N.D. 2012).

94. *Mills I*, 523 N.W.2d at 544 ("In the absence of a claim or controversy regarding the specific use of the shore zone, we decline to speculate on the precise extent of the parties' rights and interests vis-a-vis the shore zone.").

95. *Brigham Oil*, 866 F. Supp. 2d at 1082.

issued oil and gas leases covering the "shore zone" property. The action was removed to federal district court, because the federal government owned title to a portion of the mineral rights involved, and defendant riparian landowners cross-claimed asserting a takings claim against the state land board's assertion of absolute title to the mineral estate underlying the "shore zone."[96] The federal government was dismissed from the suit, and the federal court ultimately decided the required public trust doctrine analysis fell within the purview of North Dakota law.[97] The case was remanded to the North Dakota Supreme Court.[98]

The federal district court acknowledged that under the equal footing doctrine and public trust doctrine the State of North Dakota originally held absolute title to the lands and minerals underlying navigable waterways.[99] However, the federal district court also acknowledged the state's sovereign authority to allocate these property interests to riparian landowners, but pointed out that the public trust doctrine limits the state's authority to "completely abdicat[e] its interest in navigable riverbeds."[100] The federal district court cited *Mills I* for the conclusion that "[t]he 'shore zone' in North Dakota is clearly co-owned by the State and riparian landowners."[101] Finally, the federal district court held that since the determination of ownership interest in the mineral estate in and under the "shore zone" had yet to be determined by the North Dakota Supreme Court, this was a "novel and important issue of state law" which should be first resolved by the North Dakota Supreme Court.[102] The case was remanded to the North Dakota Supreme Court, and while the federal district court did not provide clear direction for final disposition it is telling that the federal district court chose to abstain because the public trust doctrine is inherently a matter of state law.[103] In the words of the federal district court, "State law, subject to federal power to regulate vessels and navigation, determines the scope of the public trust doctrine. Thus, the law of North Dakota controls title to the 'shore zone' and would be determinative of the central dispute in this lawsuit."[104]

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96. *Id.* at 1089.

97. *Id.*

98. *Burford* Abstention—the federal courts should remand a case to state court when the determination ultimately rests in state law and there is insufficient state law precedent to guide the federal court in making such final disposition.

99. *Brigham Oil*, 866 F. Supp. 2d at 1082.

100. *Id.* at 1085.

101. *Id.*

102. *Id.* at 1088.

103. *Id.*

104. *Id.*

C. ANALYSIS OF *BRIGHAM OIL* IN LIGHT OF THE PUBLIC TRUST DOCTRINE: HOW FAR DOES PUBLIC USE REACH?

Following what little guidance the federal district court provided, the first inquiry is the breadth of the public trust doctrine. *Illinois Central Railway Company v. Illinois*[105] is the strongest declaration of the public trust doctrine breadth. The Supreme Court, focusing on the nature of the grant, upheld the State's legislative revocation of a legislative grant, in fee, of a mile long stretch of the Chicago harbor. The Supreme Court determined that the *in fee* nature of the grant was not within the authority of the legislature because it was an absolute relinquishment of control over a navigable bed, subject to Public Trust restraints. Joseph Sax summarized the Court's quasi-test for determining whether a state's allocation of interest in property is in violation of the public trust doctrine as:

> When a state holds a resource which is available for the free use of the general public, a court will look with considerable skepticism upon any governmental conduct which is calculated either to reallocate that resource to more restricted uses or to subject public uses to the self-interest of private parties.[106]

Breaking this statement down, the first requirement is that the "resource" at issue be "available for the free use of the general public." This communal nature of the resource is historically referred to as *res communes* or *res publicae*, or things owned by all because they are unable to be possessed exclusively by any individual.[107] The citizens of a state instead hold a usufructuary right in resources of a *res communes* nature.[108] The usufructuary right can be regulated by the state pursuant to its police power.[109] For this reason, and as appropriately acknowledged in *Brigham Oil*, state law controls the determination of whether the public trust attaches to a resource and whether there has been an infringement upon the public trust.[110]

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105. Illinois Cent. R.R. v. Illinois, 146 U.S. 387 (1892).

106. Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 490 (1970); *see also* Negaard, *supra* note 87, at 568.

107. Geer v. Connecticut, 161 U.S. 519, 525 (1896).

108. *Illinois Cent. R.R.*, 146 U.S. at 456.

109. Baeth v. Hoisveen, 157 N.W.2d 728, 733 (N.D. 1968). *See also* Negaard, *supra* note 87, at 570 (discussing the history of the public trust doctrine in the state of North Dakota and specifically "public trust is closely intertwined with the police power of the state to pass reasonable regulations for permissible purposes in furtherance of the state's duties as trustee for the public.").

110. *Brigham Oil*, 866 F. Supp. 2d at 1082.

Additionally, as the Court discussed in *Illinois Central Railway*, it is this *res communes* nature that triggers the public trust obligation of the state.[111] Public trust originally intended to ensure that development in the ocean bed did not obstruct navigation; sovereign ownership of the bed gives control of its use and the power to ensure uses do not impair the important public purpose of navigation. Under the equal footings doctrine the state is given title to the bed. Under our system of property law, ownership of the surface ordinarily carries with it ownership of everything underlying that surface. In this case the underlying area happens to contain oil and gas. Examining the Submerged Lands Act and the nature of subsurface minerals as interpreted in North Dakota case law, supports this axiom of property law—the state absolutely holds title to the oil and gas underlying navigable river beds.[112] However, whether public trust, and thus a similar need for sovereign protection and ownership, extends to the oil and gas has not been determined in North Dakota nor in any other jurisdiction. First, oil and gas do not reflect the same *res communes* nature that the navigable waterways have, which is to say an individual can exclusively capture, or exclude others from, oil and gas. Second, the underlying purpose of the public trust doctrine is crucial to determining the public trust doctrine's application.

The underlying purpose of the state's title in navigable waterways is to preserve public access and is by far the most important public trust guarantee.[113] The North Dakota Supreme Court slightly expanded upon the public access consideration by acknowledging "important aspects of the state's public trust interest, such as bathing, swimming, recreation and fishing, as well as irrigation, industrial and other water supplies."[114] Therefore the argument can be made that the purpose of the state's public trust responsibility should be appropriately narrowed to the preservation of the public's usage of and access to navigable waterways. The state should not restrict an interpretation of North Dakota Century Code section 47-01-15 that the interest in minerals underlying the "shore zone" belongs to the riparian land owner but is burdened by public trust obligations of the state.

However, if this were the accepted argument, there is a conflict between the public trust obligation of providing surface access and

111. *Illinois Cent. R.R.*, 146 U.S. at 458.

112. Submerged Lands Act § 3, 43 U.S.C. § 1311 (2012) (reaffirming that title to minerals underlying navigable waters at statehood vests in the state and includes the natural resources within and under such lands and waters.); *see also* J.P. Furlong Enters., Inc. v. Sun Exploration & Prod. Co., 423 N.W.2d 130, 132 (N.D. 1988).

113. *J.P. Furlong Enters.*, 423 N.W.2d at 132.

114. *Id.* at 140.

traditional notions of oil and gas development. Under oil and gas law, the mineral estate has a dominant right to use the surface for extraction; development of the "shore zone" surface for oil and gas could impair navigability and other public trust uses. The *Mills I* decision makes clear that the public trust doctrine prevents the state legislature from transferring an absolute fee interest in the "shore-zone." If the public trust responsibility prevents the state from transferring an absolute fee interest in the "shore zone" because it is a trust asset, does the public trust responsibility prevent the state from alternatively creating a shared interest?[115] Which is to invite the question, so long as the interest does not carry the usual assumption of a dominant right to use the surface wouldn't the public trust interest as interpreted by the North Dakota Supreme Court be preserved?

Before balancing such a coexistent interest the Supreme Court will have to determine whether the North Dakota legislature has the authority to allocate a "shore zone" interest, whether surface or mineral, to the riparian land owners adjoining the Missouri river through North Dakota Century Code section 47-01-15. Because there is a starting presumption that statutes shall be construed to be constitutional/valid, this Article will proceed under this presumption and discuss the Supreme Court's ultimate analysis of the statute's impact on "shore zone" interest in light of the state's public trust responsibilities.

A discussion of the historical underpinnings of the public trust doctrine is not necessary for purposes of this Article, and the author directs the reader's attention to other articles that thoroughly explore the history of the public trust obligation.[116] After a state enters the union on an equal footing with existing states, state law governs title to the beds of the navigable waters.[117] However, state control is not without restriction. The United States Supreme Court applied the public trust doctrine to the state's unfettered right to use or dispose of the bed of navigable waterways in order to prevent substantial impairment of the public trust interest in interstate and foreign commerce.[118] Additionally, and because of the public interest, conveyances of sovereign lands by states are subject to heightened scrutiny such that there is a presumption against their separation from the sovereign.[119] This heightened standard may require an express intention by

115. *Mills I*, 523 N.W.2d at 542-44.

116. *See* Sax, *supra* note 106; Negaard, *supra* note 87.

117. *See generally* Illinois Cent. R.R. v. Illinois, 146 U.S. 387, 457 (1892); *PPL Montana*, 132 S. Ct. at 1226-27.

118. United States v. Holt State Bank, 270 U.S. 49 (1926).

119. United States v. Oregon, 295 U.S. 1 (1934).

state legislature to be found before the full fee title to sovereign land is legally transferred.[120]

With these public trust restraints on sovereign authority to transfer sovereign lands the issue in *Brigham Oil* may be resolved. Although the North Dakota Supreme Court was careful to find North Dakota Century Code section 47-01-15 not to be a granting statute, it is important to determine the statute's impact on property interests, specifically interests in the mineral estate in and under the "shore zone." The *Brigham* court indicates that the legislative intent must be construed in accordance with the North Dakota Constitution, in particular the anti-gift provision contained in Article X.[121] The anti-gift provision was intended to curtail those in positions of authority from improperly giving or lending state property to private citizens.[122] For this reason, the court determines that North Dakota Century Code section 47-01-15 could not possibly be a granting statute but rather a statutory rule of construction for interpretation of conveyancing instruments.[123] However, the court goes on to make an unqualified statement that it is construing the statute so as not to violate the anti-gift provision of section 185.[124] This issue then becomes, in light of anti-gift provision, what type of interest could the legislature create with North Dakota Century Code section 47-01-15 in the "shore zone."

The case law overturning statutes for being in violation of the anti-gift provision sheds some light on an invalid conveyance of interest and the anti-gift provision's implication in the present context. First, in *Herr v. Rudolf*, the court declared that a statute prioritizing former owners over other interested purchasers in foreclosure sales violated the anti-gift provision.[125] The statute favored former owners purchasing at the appraised

120. *See* Michael G. Fiergola, *North Dakota Century Code 47-01-15: Determining North Dakota's Interest in the Beds of Navigable Waters*, 59 N.D. L. Rev. 211, 221 (1983).

121. N.D. CONST. art. X, §18; *see* Solberg v. State Treasurer, 53 N.W.2d 49 (N.D. 1952); Herr v. Rudolf, 25 N.W.2d 916 (N.D. 1947).

122. See Thomas A. Dickson, The Statute of Limitations in North Dakota's Products Liability Act: An Exercise in Futility?, 59 N.D. L. REV. 551 (1983) for further discussion on the legislative intent behind the adoption of section 185 of the North Dakota Constitution.

123. *Mills I*, 523 N.W.2d at 542.

> We agree with the district court that North Dakota Century Code section 47–01–15 is a rule of construction for determining the boundary for grants of riparian land and is not itself an absolute grant of ownership to the low watermark. As a rule for interpreting conveyances, a riparian grantee "takes" the interest that is granted in the conveying instrument to the low watermark, which is the boundary of the grantee's interest.

Id.

124. *Id.*

125. *Herr*, 25 N.W.2d at 55.

land value even though others were willing to pay a greater price.[126] The court reasoned that the former owners were receiving a donation in the form of loss of state revenue of the difference in amount of the appraised value and the amount the public was willing to pay. Thus, such a donation was the type of conduct the anti-gift provision intended to prevent.[127]

Second, in *Solberg v. State*, the court found a state statute violated the anti-gift provision because it released mineral reservations made by an earlier statute. This statute was found to transfer "to certain designated classes or individuals property of the state, held in trust for all the people thereof, as a gift."[128] Thus, the statute in effect made a donation to an individual of valuable state owned mineral interests.

These cases represent liberal interpretation of the anti-gift provision, which operates to prevent the state from transferring property owned by the state in a proprietary capacity. The present issue, however, concerns lands that the state owns in its sovereign capacity—navigable beds. The sovereign capacity is the state's controlling interest in property held "in trust for the people, for purposes of public navigation, commerce and fishing . . . ."[129] Sovereign title is seemingly encumbered to a greater extent than proprietary title, because an invalid transfer of sovereign property is dependent upon whether the transfer was contrary to the underlying trust purposes—the public's interest in the preservation or usage of the resource.[130] Thus, the anti-gift provision essentially places a restraint on the State legislature's ability to transfer the state's proprietary interest in property, a restraint already existing in transfers of property held by its sovereign authority.[131] Since North Dakota Century Code section 47-01-15 impacts a sovereign interest in land rather than a proprietary interest, the state legislature's adoption of such a statute may not directly conflict with the anti-gift provision.[132] However, the statute may still be found to conflict

126. *Id.*

127. *Id.* at 922.

128. Solberg v. State, 53 N.W.2d 49, 53 (N.D. 1952).

129. State v. Longyear Holding Co., 29 N.W.2d 657, 669-70 (Minn. 1947).

130. *See Illinois Cent. R.R.*, 146 U.S. at 452-53 (articulating the analysis of whether a transfer of sovereign land underlying a navigable body of water violates the public interest depends on whether the grant "substantially impair[s] the public interest in the lands and waters remaining.").

131. United States v. Oregon, 295 U.S. 1, 14 (1934) (establishing a presumption against transfers that shift navigable property interests away from sovereign control to private proprietary control).

132. *See Illinois Cent. R.R. Co.*, 146 U.S. at 453 (1892) (distinguishing between the legal treatment of proprietary property and property held in sovereign capacity and articulating that this difference dictates the standard to apply when determining whether the transfer is contrary to a state legislature's authority).

with the underlying trust purposes if it is interpreted to transfer interests encroaching on the underlying public trust interest in navigable waterways.[133]

As previously discussed, the public trust doctrine may be determined not to encumber the mineral estate as the resource is not of a *res communes* nature. Preservation of a mineral interest is also not related to the interest in protecting interstate commerce. The underlying purpose of the state's public trust responsibility, in preserving the public's usage and access, does not entirely depend on the preservation of the mineral estate.

The statute was found to be ambiguous; therefore, inquiring into the legislative history and intent behind the statute's adoption provides guidance for the proper interpretation and allocation of the "shore-zone" interest.[134] By prescribing the statute to be solely intended as a statute of construction the *Mills* court may have been alluding to North Dakota's historical treatment of riparian land rights and boundaries. North Dakota Century Code section 47-01-15 was originally adopted in the North Dakota territorial code and exists today is unchanged.[135] Examining the historical impetus for adopting North Dakota Century Code section 47-01-15 assists interpretation of the original intent, function and scope of the statute.[136] Further, historical intent surrounding the statute's adoption may guide the North Dakota Supreme Court's application of the statute when determining the ownership interests in the "shore-zone."

The focus of inquiry into the legislative intent behind North Dakota Century Code section 47-01-15 must concern whether the intent was merely to provide the upland riparian landowner the benefit of surface access to navigable waters, that is traditionally attributed to riparian proprietary ownership or whether the intent was to provide the upland riparian ownership with a greater interest in the shore-zone. Extrinsic aids which may be used to determine legislative intent include the laws upon the same or similar subjects and the consequences of a particular construction.[137]

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133. *Id*. (articulating the analysis of whether a transfer of sovereign land underlying a navigable body of water violates the public interest depends on whether the grant "substantially impair[s] the public interest in the lands and waters remaining"); *see also supra* note 106 and accompanying text (discussing Joseph Sax).

134. *Mills* I.

135. Originally section 266 of the Dakota Civil Code. Terr. Dak. Civ. Code in 1877 (codified at N.D. CENT. CODE § 47-01-15 (2012)).

136. *See also* Dickson, supra *note 121*. The article goes into a broad discussion of the history and evolution of the statute. *Id.* One argument of the author is that the statute may be *void ab initio*. However, the state has never raised the issue in litigation. Since the argument is not at issue in *Bigham Oil*, this discussion is beyond the scope of this article.

137. N.D. CENT. CODE § 1–02–39; *see also* Kim-Go v. J.P. Furlong Enters., Inc., 460 N.W.2d 694, 696 (N.D. 1990); Perry v. Erling, 132 N.W.2d 889, 901 (N.D. 1965) ("It is a well-

In all prior precedent from North Dakota, the courts have generally interpreted North Dakota Century Code section 47-01-15 along with statutes that specifically concern the apportionment of accretions and relictions and a determination of surface boundaries.[138] In the concurrence of *Perry v. Erling*,[139] a case in which the North Dakota Supreme Court faced apportionment of accreted lands between a riparian and formerly non-riparian landowners, Justice Teigen concurred specially and provided some insight into the legislative intent behind North Dakota Century Code section 47-01-15 and similar statutes regarding riparian land boundaries. Justice Teigan states after citing other statutes concerning accretion and federal law:

> [I]t is clear to this writer that the statutes were adopted upon the principle of natural justice that one who sustains the burden of losses and of repairs imposed by the contiguity of water ought to receive whatever benefits they may bring by accretion. The legislative intent of the territorial legislature is further clarified when I consider the Organic Law-Act of March 2, 1861, Chapter 86, 12 Statutes at Large 239. Section 1851 provided:
>
> 'The legislative power of every Territory shall extend to all rightful subjects of legislation not inconsistent with the Constitution and laws of the United States. But no law shall be passed interfering with the primary disposal of the soil;'
>
> Section 1925 provided:
>
> 'In addition to the restrictions upon the legislative power of the Territories, contained in the preceding chapter, section eighteen hundred and fifty-one, the legislative assemblies of Colorado, Dakota, and Wyoming shall not pass any law impairing the rights of private property . . . .'
>
> It would be incongruous to reason that the territorial legislature enacted the law on accretion on the premise that governmental subdivisions bounded by governmental survey lines on all four sides, whether owned by the United States or patented and privately owned, could be lost to the territory by the encroachment thereon by a navigable river.

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settled rule of statutory construction that a statute must be construed with reference to other statutes concerning the same subject matter or a part of the same general system of legislation, and the courts may take judicial notice of the history of the times when they were enacted.").

138. *See* Gardner v. Green, 271 N.W. 775 (N.D. 1937); *Perry*, 132 N.W.2d at 889; Heald v. Yumisko, 75 N.W. 806 (N.D. 1898).

139. *Perry*, 132 N.W.2d at 901 (Teigen, J., concurring); *see also* N.D. CENT. CODE §§ 47-06-05, 07, 08.

> It is also significant that no statute, either territorial or State, was enacted providing that erosion of the banks of a navigable stream conveys the title to the soil remaining below the surface of the water in eroded areas to the sovereign. The only basis upon which the theory that the submerged lands below the low watermark passes by operation of law to the State, when the banks are eroded and washed away by action of the water, is the Federal law on surveys cited herein that the boundary line of fractional lots shall be ascertained by running them from established corners to the watercourse. This is a rule of property and we cannot by judicial fiat establish another rule which would violate the supreme law of the land.[140]

The concurring opinion sheds light on the cumulative effect of these statutes. The statutes preserve the riparian private ownership interests, protecting the riparian landowner's benefit of receiving ownership interest in accretions without concern for the state retaining ownership over such accretions. These statutes were meant to prevent the dissolution of preceding riparian rights from the sovereign's reassertion of absolute ownership over riparian lands transferred because of a shift in a navigable waterway.[141] Justice Teigen's take on the legislative intent behind North Dakota Century Code section 47-01-15, along with the other statutes concerning accretions, strengthens the argument in favor of providing the private landowner title interest in the entirety of the shore zone estate, including the mineral estate. However, as the *Mills I* court already determined, the private upland riparian interest cannot be absolute.[142]

Turning to a statutory provision from another state, California statute section 830 is an analogous provision to North Dakota Century Code section 47-01-15.[143] Although not a law from North Dakota the statutory

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140. *Perry*, 132 N.W.2d at 901.

141. *See Gardner*, 271 N.W. at 780 (N.D. 1937) (quoting GOULD ON WATER § 76 (2d ed.)). According to all the decisions in those States in which the lands were originally surveyed under the laws of the United States, the lines run by the United States surveyors along the river banks are not lines of boundary, the owners of the adjacent lands taking at least to the water's edge, thus giving them the benefit of the river frontage, with the right of access to the river, and the incidents of riparian proprietorship as to the use of the water. . . . When land owners once become riparian proprietors, they are entitled to the accretions, or newly-formed ground which may be left by the river after the survey and sale by the United States of the adjacent land, and which, if not their property, would separate them from the river.

142. *See* Franklin, *supra* note 78.

143. *Compare* CAL. CIV. CODE § 830 (West) ("Except where the grant under which the land is held indicates a different intent, the owner of the upland, when it borders on tide water, takes to ordinary high-water mark; when it borders upon a navigable lake or stream, where there is no tide, the owner takes to the edge of the lake or stream, at low-water mark; when it borders upon any

provision is identical to North Dakota Century Code section 47-01-15 and the California Supreme Court has been faced with interpreting its effect on shore zone property rights. In *State of California v. Superior Court* (*Lyon*),[144] the court interprets section 830 and in the opinion cites North Dakota Century Code section 47-01-15. In the case, the State of California requested a writ of mandamus to reflect that lands lying between the low and high water mark "lands are owned by the state, which acquired title thereto by virtue of its sovereignty upon admission to the Union, that they have not been conveyed to the owners of the lands along the shoreline, and that even if such conveyances have been made, the lands in dispute are subject to the [public trust]."[145] The California Supreme Court faced a similar issue as the North Dakota Supreme Court in *Mills I*—whether section 830 is a statute granting an interest in the shore zone or if it was merely a statute of construction. On this first issue the California Supreme Court held the statute did convey title to Lyon and thus into private ownership. Next the court held that such a grant was burdened by the public trust as defined by the State of California, which included "public's right in tidelands as encompassing navigation, commerce and fishing, the permissible range of public uses is far broader, including the right to hunt, bathe or swim, and the right to preserve the tidelands in their natural state."[146] Additionally, private title did not prevent the imposition of the public trust on the title to lands in between the low and high watermark.[147] Ultimately, the California Supreme Court rejected Lyon's contention that the burdens of the public trust doctrine constitute a taking of private property in violation of federal and state constitutional provisions.[148] Instead the California Supreme Court determined that Lyon may utilize the lands between the high and low water mark "in any manner not incompatible with the public's interest in the property."[149]

This case, and those cited in the opinion in reference to interpretations of analogous statutes to North Dakota Century Code section 47-01-15, should be used as persuasive precedent and considered by the North Dakota Supreme Court in its interpretation of North Dakota Century Code section 47-01-15 and resolution of *Brigham Oil*. The primary difference is that the

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other water, the owner takes to the middle of the lake or stream.") with N.D. CENT. CODE § 47-01-15.

144. State v. Superior Court, 625 P.2d 239, 248 (Cal. 1981).

145. *Id*. at 241.

146. *Id*. at 250.

147. *Id.*; *see also* Flisrand v. Madson, 152 N.W. 796, 801 (S.D. 1915); State v. Korrer, 148 N.W. 617, 623 (Minn. 1914).

148. *Superior Court*, 625 P.2d at 251-52.

149. *Id.* at 252.

Mills I court determined North Dakota Century Code section 47-01-15 was not a granting statute but merely a statute of construction. However, even though no interest has been directly transferred by the operation of North Dakota Century Code section 47-01-15 as a statute of construction, *Lyon, Flisrand v. Madson*[150] and *State v. Korrer*,[151] all stand for the proposition that whatever private interest is determined to exist in the shore zone the public trust doctrine still may burden the riparian landowner's usage.

If the Supreme Court determines that North Dakota Century Code section 47-01-15 allows for private ownership of the mineral estate underlying the shore zone, then the division of the mineral interest must be defined next.[152] Primarily how the interests will be divided: whether both the State and the riparian land owner hold some interest (realizing the "correlative rights" referenced in *Mills*), whether one party takes the entire bundle of mineral rights, or whether there is some compromised division (where the riparian land owner takes ownership of the mineral interest but subject to the public trust, e.g. diminishing dominant estate).

150. *Flisrand*, 152 N.W. at 801.

151. *Korrer*, 148 N.W. at 623.

152. An example of the clarification needed is in *Mills I* where the court analogized the shared state-riparian interest in the shore zone to a correlative interest. Correlative interests are a shared interest in an undivided whole; however, the division of such interests remains undefined. In clarifying the correlative interests in the mineral estate the Supreme Court may consider a few other statutes to avoid creating an irreconcilable conflict or nullity amongst statutes. N.D. CENT. CODE §§ 1-02-01, 01-02-07 (2011). First, North Dakota Century Code section 38-09-01 provides that every transfer of land "whether by deed, contract, lease or otherwise, by the state of North Dakota . . . fifty percent of all oil, natural gas, or minerals which may be found on or underlying such land shall be reserved to the state of North Dakota." N.D. CENT. CODE § 38-09-01 (2011). Further, any conveyancing instrument that does not explicitly contain such a reservation "*must* be construed as if such reservation were contained therein." N.D. CENT. CODE § 38-09-01 (2011) (emphasis added). Since this provision applies to all lands owned by the state regardless of how title was acquired the Supreme Court should consider this statute in conjunction with North Dakota Century Code section 47-01-15 when determining the division of mineral interests that underlie the shore zone. N.D. CENT. CODE § 38-09-01 (2011). At the very least, if North Dakota Century Code section 47-01-15 is construed to extend to shore zone minerals, thereby providing the riparian land owners some mineral interest by construction of the conveyancing instrument in light of North Dakota Century Code section 47-01-15, then in light of North Dakota Century Code section 38-09-01 at the time of transfer from the state to the riparian land owner of the shore zone lands the State must have at least retained fifty percent of the mineral interest, or in the alternative, the riparian land owners could only have been transferred fifty percent of the minerals underlying the shore zone lands. N.D. CENT. CODE § 38-09-01 (2011). *See also* Egeland v. Cont'l Res., Inc., 2000 ND 169, ¶ 10, 616 N.W.2d 861, 864 (holding that oil and gas leases are subject to the same rules of construction as other contracts and that contracts are to be construed "in light of existing statutes, which become part of and are read into the contract as if those provisions were included in it." (citing Reed v. Univ. of North Dakota, 1999 ND 25, ¶ 22 n.4, 589 N.W.2d 880, 886). Additionally, North Dakota Century Code sections 38-11-02 and 38-11-04 will need to be considered when determining which oil and gas lease is controlling. N.D. CENT. CODE §§ 38-11-02, 38-11-04 (2011). Both of these sections control the leasing process to be followed when state owned minerals or when state lands are sold that contain a reservation of the mineral interest. *Id.*

IV. LEGAL EFFECTS OF RIPARIAN DOCTRINES

The fundamental principle of riparian ownership is that those who benefit from accretion are inherently burdened by erosion or submergence. The basic premise is that without contrary language restricting the riparian rights inherent in upland property abutting a navigable stream, "[w]here a water line is the boundary of a given lot that line no matter how it shifts, remains the boundary, and a deed describing the lot by number or name conveys the land up to such shifting water line."[153]

A. IMPACT OF RIPARIAN DOCTRINES ON DEED AND TITLE BOUNDARY DESCRIPTIONS

Ownership of the bed, to whomever it belongs, does not alter this principle.[154] When riparian lands are conveyed without contrary language the presumption is the riparian rights inherent in the land pass to the grantee. No matter whom the land is conveyed to, the riparian character flows through the title conveyance. The result is the title being both benefited and burdened by the riparian nature of the property. This unqualified benefit and burden is the fundamental characteristic of riparian ownership and, overtime, the cause of uncertainty in surface acreage.[155] Accounting for the uncertainty caused by the doctrines of accretion is discussed in this final section.

B. MINERAL ESTATE CONSIDERATIONS

There are two ways to treat the impacts of riparian doctrines on severed mineral estate boundaries: (1) allow the boundaries to be ambulatory; or (2) treat the boundaries as fixed.[156] There are no federal cases where a court determined the impact of the riparian doctrines on mineral estate boundaries. Only a handful of states have addressed this question.

Montana dealt with this dilemma in *Jackson v. Burlington North Incorporated*,[157] concluding that even where mineral rights have been severed the boundaries are still subject to the changes in the surface boundaries caused by accretion. Prior to *Jackson*, only one other state court, in Oklahoma, had addressed this dilemma and similarly ruled to permit the doctrines of accretion to alter severed mineral estate

153. Jefferis v. E. Omaha Land Co., 134 U.S. 178, 189 (1890).

154. BROWN, *supra* note 2, at 214.

155. David A. Provinse, 35 IBLA 221 (1978); Forest Oil Corp., 15 IBLA 33, 37 (1974); *see* Philadelphia Co. v. Stimson, 223 U.S. 605 (1912).

156. Kimball, *supra* note 58, at 236.

157. Jackson v. Burlington N. Inc., 667 P.2d 406, 409 (Mont. 1983).

boundaries.[158] Since these two cases, Texas and Arkansas have similarly ruled, concluding that even though severed from the surface estate a mineral estate has the same bundle of rights as a surface owner, including the riparian rights.[159] In these jurisdictions, riparian mineral estates are benefited and burdened in the same manner as surface estates by the doctrines of accretion.[160] This Article examines different approaches to achieve a more favorable outcome for parties involved. Permitting a severed mineral estate to be affected in the same way as the surface estate ignores is the absence of the intention behind the riparian doctrines' power to alter boundaries, retaining the surface estates' value created by its riparian character. With a severed mineral estate, the riparian character of the surface estate is nonexistent, or at least reduced. As a starting premise the North Dakota Supreme Court wisely recognized that there is a difference in the intent and policies behind surface leases and mineral leases. "Unless a different intention is clearly indicated, oil and gas leases are not and should not be governed by the law and policy applicable to surface leases."[161]

C. INTERACTION OF DOCTRINES ON BOUNDARY DESCRIPTIONS CONTAINED IN LEASE, COMMUNITIZATION.

If a mineral estate owner, royalty holder or mineral developer has yet to enter into an oil and gas lease or communitization agreement parties may be able to contract out the impacts of riparian doctrines by fixing the mineral estate boundaries at the time of contract. Parties that have an understanding of how the language contained in a conveyancing instruments can be used to modify the application of riparian doctrines may avoid the uncertainty caused by riparian changes. This subsection focuses on the interpretation of mineral lease agreements and communitization agreements.

An oil and gas lease is a contract, and the general principles invoked for the construction of contracts and their interpretation are applicable to oil and gas lease interpretation.[162] The purpose of interpretation or construction of any contract is to ascertain the true intent of the parties.[163]

158. *See generally* Nilsen v. Tennaco Oil Co., 614 P.2d 36 (1980).

159. *See* Ely v. Briley, 959 S.W.2d 723, 727 (Tex. Ct. App. 1998); Swaim v. Stephens Prod. Co., 196 S.W.3d 5, 10 (Ark. 2004).

160. *Id.*

161. Holman v. State, 438 N.W.2d 534, 539 (N.D. 1989) (adopting reasoning of 3 W. SUMMERS, THE LAW OF OIL AND GAS § 553 at 599-601 (1958)).

162. Wolff v. Belco Dev. Corp., 736 P.2d 730 (Wyo. 1987); State v. Moncrief, 720 P.2d 470 (Wyo. 1986).

163. *Id*

Unless the terms of the contract are ambiguous, the language used in the contract controls the interpretation of the parties' intent.[164] The general presumption, in deed conveyance and in lease conveyance, favors interpretation of ambiguities for the benefit of the grantee receiving the riparian rights, regardless of whether the instrument is interpreted under state or federal law.[165]

Leases are often incorporated by reference in a communitization agreement to establish the boundaries and surface acreage to be used in apportioning the production amongst the communitized tract. The underlying lease terms are the foundation for interpreting the terms of a communitization agreement. The ability of the riparian doctrines to alter the application of communitization agreements by changing mineral estates or, alternatively, the ability of a communitization agreement to alter the application of a lease agreement is important to drafting these conveyancing instruments to account for the riparian doctrines subsequent effects on the royalty interests of mineral interest owners as well as provide the mineral developer accuracy in paying out royalties. For example, if a communitization agreement stated "land descriptions for purposes of royalties will remain fixed irrespective of any changes caused by accretion or reliction." Whether communitization language can modify the underlying lease's land description and royalty interest determines whether language can or should account for the riparian doctrines in the communitization agreement or lease.

Establishing whether a communitization agreement could be used to override subsequent changes in the title, or title boundaries, described in the lease is extremely challenging to navigate through because of its shared roots of contract and property law. An approach is "to treat pooling and unitization agreements as a special area of contract law, but clearly note that these contracts grow out of, and affect, property rights."[166] Keeping this approach in mind the following cases divulge how courts may approach such an issue.

In *P&M Petroleum Management*,[167] the IBLA found that to the extent that the United States has been divested of title to both mineral and surface

164. State v. Pennzoil Co., 752 P.2d 975, 978 (Wyo. 1988).

165. Ranch v. United States, 714 F. Supp. 1005, 1014 (D. N.D. 1988) *aff'd*, 905 F.2d 180 (8th Cir. 1990); *State Lands Comm.*, 805 F.2d at 864.

166. BRUCE M. KRAMER & PATRICK H. MARTIN, THE LAW OF POOLING AND UNITIZATION, §19.01, 19-4 to -5 (3d ed. 2003).

167. P&M Petroleum Mgmt, 140 IBLA 228, 232-33 n.33 (1997). The IBLA set aside and remanded the Deputy State Director's determination because the Deputy State Director ordered a retroactive apportionment of royalty payments based solely on meander lines bounding a nonnavigable river indicated in a certified resurvey; rather than examining whether the leasehold

estates due to the doctrines of accretion there is a basis for diminishing existing leaseholds. Similar to previously referenced cases, the decision establishes that while a resurvey would not alone alter existing leasehold, the doctrines of accretion would alter the leasehold to the extent that the upland owner has been divested of title.[168] Second, the language contained in a communitization agreement may modify the provisions of the underlying lease and the application of the doctrines of accretion.[169] When mineral ownership asserted in an underlying lease is the basis of the calculation for apportioning the production achieved under a communitization agreement, language in the communitization agreement may constrain the application of the doctrines of accretion to the underlying lease.

Other case law offers the conclusion that terms of a communitization agreement, conflicting with the underlying lease, may implicitly modify the lease terms.[170] However, much like lease terms, an interpretation that implicitly modifies language is predicated on the intent of the parties as evidenced by their original consent, lease, or later ratification of the modifying document.[171] Implicit modification of lease terms is reflected in many cases where contract interpretation is used to resolve the conflict between the language of communitization agreements and leasehold interests, resulting in abrogation of rights provided by the underlying lease.[172]

For example in *Wolff v. Belco Development Corp.*,[173] the Wyoming Supreme Court rejected the argument that explicitly striking a pooling clause from the underlying lease *prior to* executing a communitization

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interests had been divested by the doctrines of accretion shifting the mineral estate beyond the medial thread of the nonnavigable river, stating:

> Only to the extent that land has eroded beyond the medial thread is there any basis for diminishing an existing leasehold, and this is done not because of the fact of resurvey, but rather because, through the process of erosion, the United States has been divested of title to both the surface and mineral estates in such land, and it may not lease what it does not own.

Id.

168. *Id.*

169. *Id.* The IBLA did not comment on the Deputy State Director's reasoning that the terms of the production apportionment in the communitization agreement, *lacking language to constrain the impact*, would be altered by the doctrines of accretion.

170. Carrington v. Exxon Co., 877 F.2d 1237, 1242 (5th Cir. 1989) (holding that "the broad grant of right of way over the property to the Unit Operator in the [communitization] [a]greement conflicts with the pipeline burial clause in the original leases, and that clause therefore does not survive the execution of the [communitization] [a]greement."). *See also* Wolff v. Belco Dev. Corp., 736 P.2d 730 (Wyo. 1987).

171. *Id.*

172. *See generally* Kysar v. Amoco Prod. Co., 93 P.3d 1272 (N.M. 2004).

173. Wolff v. Belco Development Corp., 736 P.2d 730, 733 (Wyo. 1987).

agreement is controlling in the determination that the communitization agreement did not apply to that particular lease. The court held that even though expiration of the lease had occurred, according to the lease terms, because of the subsequent execution of a communitization agreement the lease had not expired.[174] The Wyoming Supreme Court held that the intent of the parties as reflected in the language of the communitization agreement modified the original intent of the parties as reflected in the underlying lease.[175]

In another case, the Fifth Circuit Court of Appeals interpreted the right to take "royalty in kind," as contained in the royalty provision of an underlying lease, in light of a later executed communitization agreement.[176] The Court of Appeals found that, notwithstanding the lease language being clear and unambiguous in conveying the intent of the parties and that had the well had been drilled on the lessor's tract, there would be entitlement to receive the royalty in kind.[177] The court allowed the lessor to share in the proceeds "because and only because of the execution by him of the communitization agreement . . . [the communitization agreement] has superseded and taken the place of the royalty provision for payment in kind invoked . . . ." in the underlying lease.[178] In effect, the Court of Appeals amended the underlying lease through interpretation of the communitization agreement and the parties conduct.

Based on these holdings, the underlying lease language controls the leasehold interest held under the communitization agreement, where contradictory terms in the communitization agreement are lacking.[179] When doctrines of accretion modify the leasehold interest, there is an implicit modification of the overriding communitization agreement. The opposite is also true, if contradictory language in a communitization agreement can modify the underlying lease terms, then language in a communitization agreement fixing the boundaries, would flow through to modify the leasehold interest, so long as it conforms to the intent of the contracting parties.[180]

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174. *Id.*

175. *Id.*

176. Phillips Petroleum Co. v. Ham, 228 F.2d 217, 219-20 (5th Cir. 1955).

177. *Id.* at 219.

178. *Id.* at 220.

179. Kirkpatrick Oil & Gas Co., 15 IBLA 216, 223 (1974) (stating that "[i]n the absence of an approved communitization agreement full royalty payment to the United States must be made in accordance with the terms of lease . . .").

180. A resurvey of the boundaries would be required to establish the accurate boundaries at the time of communitization agreement execution.

Presumably, the intent of the parties is to identify the actual mineral acreage and calculate accurate proportions of production to the interest holding parties. The case law suggests that the communitization agreement can be used to modify the underlying lease as to both express terms and implied terms. The importance of such a conclusion is the potential to account for the impact of the accretion doctrine within the communitization agreement, thereby retroactively modifying the boundary language contained in the underlying lease. By accounting for the doctrines of accretion in the communitization agreement, or stating that changes in ownership caused by the doctrines of accretion will not be considered for purposes of royalty payments, attorneys can provide certainty that the lease benefits apportioned to the mineral interests, and paid by the operator, under the communitization agreement will remain certain regardless of the impact the doctrines of accretion have on the surface boundaries.

Fundamentally, the communitization agreement incorporates a general description of the surface area acreage, contained in an underlying lease, to account for the appropriate apportionment of production between the parties. Under a communitization all parties in the agreement agree to accept royalties based on the land area described. Actual title will not be impacted; rather the agreement represents an agreement to accept payments according to the definition of the land area. One way to avoid the uncertainty of the doctrines of accretion on the mineral estate is to contract them out of the equation. Inclusion of a clause in the communitization agreement, or underlying lease, fixing the mineral estate boundaries "as of the time of execution of the lease" allows parties to avoid the impacts of the riparian doctrines on the allocation of leasehold royalties to be paid.[181]

181. A common law issue to contracting out the riparian doctrines is the possibility of such a provision being contrary to state law. Contract law assumes that existing law at the time of the formation of a contract becomes part of the contract. Most cases that hold a contrary to law provision invalid do so because it is contrary to a fundamental public policy. See Storbeck v. Oriska Sch. Dist. No. 13, 277 N.W.2d 130 (N.D. 1979); Hall GMC, Inc. v. Crane Carrier Co., 332 N.W.2d 54, 62 (N.D. 1983) (finding that where applicable state law exists a contract provision that is contrary to its application was severed from the agreement). The state statute was read into the agreement and the contrary provisions were severed.); Fremont Homes Inc. v. Elmer, 974 P.2d 952 (Wyo. 1999) (holding that a provision that was contrary to public policy was unenforceable but that the contract was still valid where only a single provision was contrary to public policy and considerations for both sides were still sufficient to perform.); Keystone Inc. v. Triad Sys. Corp., 971 P.2d 1240 (Mont. 1998) (holding a choice of law provision invalid where the choice of law was contrary to Montana's fundamental public policy, Montana had a materially greater interest in the particular contractual issue and but for the provision Montana law would operate.). These cases raise the issue of whether the doctrines of accretion are "fundamental public policies." The primary nature of riparian lands being access to water the doctrine of accretion as to surface estates would be viewed by the court as fundamental to its nature and public perception. However, when applying the importance of water access to the mineral estate this "fundamental" benefit is lessened, if not made obsolete.

A clause fixing the mineral estate boundaries removes the uncertainty existing in the common law doctrines of accretion. While this is a negative risk to the mineral interest holder who gains by accretion it carries with it the benefit that, should erosion occur, their interest is not negatively impacted. More importantly, to the lessee, it enables the oil and gas operator or company to accurately account for royalty payments.

Another impediment to fixing the boundaries under a communitization agreement is that such a provision would only survive challenge so long as all ownership interests, the state (bed owner) and both riparian owners, the federal government possible as one, agree to the boundary terms.[182] Such a

182. Jackson v. Burlington N. Inc., 667 P.2d 406, 409-10 (Mont. 1983) (holding that "prior exception by a riparian owner on one side of a navigable waterway will not work to divest either the State or another riparian owner of its (his) ownership in lands underlying navigable waterways or minerals situated in accreted lands"). Although outside the scope of this article, there is a need to consider whether the federal government, by and through agency action, can fix the boundaries of a mineral estate underlying public lands. The answer turns on whether Congress conferred discretion on said agency when leasing and managing public lands. Wildearth Guardians v. Salazar, 783 F. Supp. 2d 61, 74 (D.D.C. 2011) (acknowledging that where Congress has conferred discretion on an agency to lease public lands there is no non-discretionary duty and the agency is free to "articulate the process and procedure that it considered necessary and proper to carry out the statutory command to lease such lands upon competitive bidding"). Congress through the Mineral Leasing Act confers discretion to commit public lands under a communitization agreement:

> For the purpose of more properly conserving the natural resources of any oil or gas pool, field, or like area, or any part thereof, . . . lessees thereof and their representatives may unite with each other, or jointly or separately with others, in collectively adopting and operating under a cooperative or unit plan of development or operation of such pool, field, or like area, or any part thereof, *whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest. The Secretary is thereunto authorized, in his discretion,* with the consent of the holders of leases involved, *to establish, alter, change, or revoke drilling, producing, rental, minimum royalty, and royalty requirements of such leases and to make such regulations with reference to such leases, with like consent on the part of the lessees, in connection with the institution and operation of any such cooperative or unit plan as he may deem necessary or proper to secure the proper protection of the public interest.* The Secretary may provide that oil and gas leases hereafter issued under this chapter shall contain a provision requiring the lessee to operate under such a reasonable cooperative or unit plan, and he may prescribe such a plan under which such lessee shall operate, which shall adequately protect the rights of all parties in interest, including the United States.
>
> When separate tracts cannot be independently developed and operated in conformity with an established well-spacing or development program, any lease, or a portion thereof, may be pooled with other lands, whether or not owned by the United States, under a communitization or drilling agreement providing for an apportionment of production or royalties among the separate tracts of land comprising the drilling or spacing unit *when determined by the Secretary of the Interior to be in the public interest*, and operations or production pursuant to such an agreement *shall be deemed to be operations or production as to each such lease committed thereto.*

30 U.S.C. § 226(m) (2012) (emphasis added). This provision of the Mineral Leasing Act confers discretion to establish the terms of a communitization agreement so long as it is "in the public interest." *Id.* The public interest requirement obligates the Secretary of Interior to prevent water and encourage development for the benefit of the public. *See* California Co. v. Udall, 296 F.2d 384, 388 (D.C. Cir. 1961). These general obligations to the public do not prevent the Secretary of

clause in a lease agreement would not work, unless all lessors in the communitization agreement included such language, because lease language would impede the rights of the other riparian property owners, not party to the agreement.[183] Realistically, the provision fixing the boundaries would need to be included in the communitization agreement and at a minimum would have to be consented to by the parties holding title to the mineral interest on either side of the navigable body of water and the state holding title to the bed.

Contracting to account for such natural changes is just one more item to include on the drafting checklist. However, where the doctrines of accretion have altered the surface boundaries, creating an alluvium, and parties failed to include such a clause in the communitization agreement, the challenge, if the benefited landowner raises the issue, becomes interpreting the provisions to accurately reapportion the interests of the riparian owners. For mineral estate owners or mineral developers already bound by a mineral lease or communitization agreement, this section examines the courts approach to apportioning lands and reestablishing boundaries impacted by riparian doctrines. In general if there is a mistake in the boundary description or if the boundary changes because of reliction, the impacted party will attempt to quiet title in order to reassert the boundaries. A quiet title action to reclaim land will not fix the boundaries nor prevent future impact of the doctrines of accretion on the boundaries of the riparian land.[184] Judgments do not alter the ambulatory character of a riparian boundary rather they merely affirm the title to the lands impacted

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Interior from fixing the boundaries of a federal mineral interest held under an oil and gas lease or communitization agreement so long as it can be justified. Knight v. United Land Ass'n, 142 U.S. 161, 181, (1891) (acknowledging the discretion in regulating in the interest of the public, that "in the administration of such large and varied interests as are entrusted to the land department, matters not foreseen, equities not anticipated, and which are, therefore, not provided for by express statute, may sometimes arise; and, therefore, that the secretary of the interior is given that superintending and supervising power which will enable him, in the face of these unexpected contingencies, to do justice" (internal quotes and citations omitted); *see also California Co.*, 296 F.2d at 388 (permitting the restricting lessee production to protect public interest by preventing depression of the market).

183. *See* Nilsen v. Tenneco Oil Co., 614 P.2d 36, 42 (Okla. 1980).

> [A] non-severed mineral estate would still be subject to loss by virtue of accretion or erosion, while a severed mineral estate would not be subject to such loss . . . in situations in which a severed mineral interest and a non-severed interest are separated by a waterway which constitutes a common boundary, the person owning the severed interest could increase his or her estate by virtue of accretion or erosion, but never have it decreased, while the owner of the non-severed interest could have his or her mineral interest decreased, but could never gain.

184. Ranch v. United States, 714 F. Supp. 1005, 1007 (D.N.D. 1988) *aff'd*, 905 F.2d 180 (8th Cir. 1990) (paying credence to "full faith and credit to the quiet title judgments" but stating "[n]either the quiet title action nor . . . quitclaim deed relieved the plaintiffs from the burden of submergence.").

by the riparian doctrines as of the time they were entered.[185] Without including language fixing the leasehold boundaries in a communitization agreement, quieting title to reflect the boundary changes is a necessary step. However, it is important, related to long-term certainty in accurate royalty payments, to have an understanding that this will only be permanent so long as the doctrines of accretion do not alter the landscape further.

When the court quiets title to include the newly formed alluvium there will need to be an apportioning of the alluvium amongst the riparian owners. When a communitization agreement includes multiple riparian owners along a common river bank, in accurately apportioning the newly formed shoreline the court will need to consider the mineral interests. When the focus is strictly the surface estate interest, the primary concern will be equitably preserving the riparian nature of the land.[186]

As discussed above, the two methods for apportioning ownership interest of an alluvium between adjoining owners are the Shore-Line Method and Acreage Method.[187] The Acreage Method would be practical for apportioning an alluvium in the context of communitized mineral estates because it allows a more equitable division in light of the mineral estate value. The Acreage Method apportions the newly accreted lands among riparian surface owners so that each owner gains an area of alluvium in relation to his former proportionate length of the water frontage.[188]

This approach to apportionment better accounts for the intent of the contracting parties to an oil and gas lease or communitization agreement. Since acreage in an oil and gas lease or communitization scenario is the production-payout factor for royalty payment and production apportionment, maintaining an area that is equivalent to the pre-accretion area would preserve the intent to accurately apportion royalty interest. Additionally, the Acreage Method does not require a boundary to be necessarily fixed; rather, using the Acreage Method to apportion, allows the operator to calculate the new percentages based on the prior proportion of production.[189] Since apportionment of mineral interest is based on correlative surface area instead of exact boundaries, the Acreage method coincides with the nature of mineral development.

Montana appears to apply the Shore-Line Method, at least when apportioning the shoreline of a navigable lake.[190] The *Stidham v. City of*

185. *See id.*
186. BROWN, *supra* note 2, at 221.
187. *See supra* notes 50-4 and accompanying text.
188. BROWN, *supra* note 2, at 221.
189. *Id.* at 222.
190. *See* Stidham v. City of Whitefish, 746 P.2d 591, 596 (Mont. 1987).

Whitefish,[191] case does not address the actual apportionment method, instead focusing on the appropriate extension of the boundary lines to maintain the surface owner's shoreline access. North Dakota applied the Shore-Line Method in *Kim-Jo v. J.P. Furlong Enterprises Incorporated.*[192] The court's reasoning was based in the principle that the most valuable attribute of riparian land is "riparian lands *adjoin* water."[193] The court's reliance on the core principle of the Shore-line may be misguided. In inferring the defining characteristic of riparian lands, access to water, the court placed great weight in case law discussing the surface estate apportionment value. There is a significant difference between the value of riparian rights for surface owners and mineral estate owners.

Access to a body of water may be of substantial importance to the surface estate owner, but where the mineral estate is severed the holder of that interest gains nothing from having equivalent access to water. If the "value" of having equal shoreline access is maintaining docking space, after accretion, the Shore-Line Method makes practical sense.[194] This analysis is appropriate for surface estate apportionment but is fatally flawed when considering the value "docking space" would provide a mineral estate owner. Actual acreage is the key factor used for establishing royalty payments, rental payments and communitization production-payout.[195] Unless a contrary intention is articulated in the lease, a mineral estate owner is generally more interested in increasing overall acreage than increasing shoreline access.[196] Rather than following policy favorable to the surface owner in apportioning property, applying the Acreage Method to apportion the mineral estate would reflect the intentions of parties to an oil and gas lease or communitization agreement and would support the inherent value in the mineral estate.

Applying the Acreage method to severed mineral estates is not only practical, but it preserves the value of a severed mineral estate owner. However, applying both apportionment methods is not without some conflict. If the mineral estate were not severed from the surface estate, different boundary lines may be created in the surface and mineral estates. Applying an alternative method to the mineral estate can establish an

191. *See id.*

192. 484 N.W.2d 118 (N.D. 1992).

193. *Kim-Go*, 484 N.W.2d at 121 (emphasis added).

194. *See generally* BROWN, *supra* note 2, at 221-26.

195. *See supra* notes 59-64 and accompanying text.

196. Holman v. State, 438 N.W.2d 534, 539 (N.D. 1989). *See* 3 W. SUMMERS, THE LAW OF OIL AND GAS § 553 at 599-601 (1958) (determining that, "[u]nless a different intention is clearly indicated, oil and gas leases are not and should not be governed by the law and policy applicable to surface leases.").

alternate set of subsurface boundaries. Nevertheless, applying different apportionment methods provides the most equitable result for both surface and mineral estate owners when severed and nonsevered estates are communitized. Even if a differing set of subsurface boundaries were created from the independent application of Acreage Method, the boundary would not exist as a fixed point.[197] Thus, unfixed subsurface boundary would not impact the preserved surface estate value of shore-line access.

Additionally, when the unsevered mineral estate is communitized with severed mineral estates, the Acreage Method would result in the most equitable division of the newly accreted lands. Mineral estate owners would receive a proportionate percentage increase of the overall production in relation to newly accreted land. Moreover, the Acreage Method would be in line with the intent of the parties to an oil and gas lease or communitization agreement: accurately representing the actual acreage apportionment of production.

However, courts would not have to struggle through the application of these rules if this were negotiated and explicitly included in the lease and communitzation agreement. A provision such as this could be placed in the "Choice of Law" subsection. Consideration of whether an apportionment provision would be contrary to law, "contrary to a fundamental public policy," would have to be addressed. Again, adding the parties' intent to use a specific apportionment method should be added to the list of drafting considerations.

V. CONCLUSION

The issue in *Brigham Oil* of establishing mineral estate boundaries in the "shore zone" is just the first legal consideration when navigable waterways overlay a portion of a mineral reserve. Just as foreseeable acts of nature should be considered in drafting a business contract or purchase agreement, the doctrines of accretion should be present in the drafting and negotiation stages of oil and gas leasing and production allocation in communitization agreements. The two primary considerations are; (1) to determine whether the parties wish to have the doctrines impact their mineral interests; and (2) if the first is answered in the affirmative, to determine the method of apportionment to apply when changes have occurred in the boundaries due to the doctrines of accretion. "So long as producing" is a phrase within a lease or communitization agreement, holding riparian property that creates the need to account for shifting boundaries due to the doctrines of accretion. Having the foresight to protect

197. *See* test accompanying *Brigham Oil*, *supra* note 99.

the mineral owners' royalty interest or preserve the certainty in royalty apportionment for the operator is the responsibility of the drafting attorneys. Understanding the treatment and analysis of the issues provides the drafting attorney the ability to prepare the client and control the outcome of such an unpredictable shift.