

Contrasting boundaries of title and boundaries of jurisdiction in the context of the federal Submerged Lands Act - How the purpose which a boundary is intended to serve can operate as a distinguishing factor in the determination of appropriate boundary establishment principles and methodology.

Scholarly discourse and thought provoking debates are among the hallmarks of the learned professions, and effective communication of the collective knowledge base of any profession is essential to its perpetuation. During the year 2015 such an exchange of knowledge and thoughts took place, between a few highly respected senior practitioners of the land surveying profession, in a particularly public forum, demonstrating once again that this profession benefits from the presence of some very erudite and highly astute individuals at the leadership level, who have made a genuine commitment to professional education. While the primary focus of any land surveying curriculum must necessarily be technical in nature, as the adoption in recent years of the term "geomatics" by many leading educators suggests, it is arguably equally important to cultivate the development of thought leaders within each succeeding generation. Free and open debate, of the kind referenced here, not only supports the ongoing education of mature professionals, but perhaps even more importantly provides a vital source of motivation, for those who have only recently entered the professional arena, introducing them to advanced material and encouraging them to embark upon their own course of advanced learning. One of the most rewarding aspects of a career in the land surveying profession is the abundance of opportunities for lifelong learning which it affords to all, and the basic premise set forth here is that every professional has a duty to be appreciative of the intrinsic value of the educational efforts of his or her colleagues, even when diverging thoughts and ideas arise from such interaction, as they inevitably must (FN 1).

As is so often the case, the discussion referenced above developed from observations made by a highly respected senior land surveyor, who felt compelled to express concern about the potential legal implications of a certain matter involving boundary determination and adjudication upon the methodology employed in the practice of boundary surveying. In December of 2014 the Supreme Court of the United States (SCOTUS) once again found itself figuratively immersed in the waters of the Pacific Ocean, as a long running controversy styled *United States v California*, which has been periodically litigated for well over half a century, returned to the Court requiring further judicial attention. Judicial approval of various aspects of the boundary resolution thus finalized in 2014 proved to be troubling to this richly experienced California surveyor, who diligently enumerated several aspects of the judicial treatment of the matter, which he viewed as problematic, in an article which appeared in March of 2015 (FN 2). The specific boundary which was at issue between the US and California in this case is widely known as the "offshore boundary" (OSB) signifying the maximum oceanward extent of each coastal state, and it lies roughly 3 miles beyond land's end along the California mainland coast. Along with numerous issues of a purely technical nature, regarding the proper positioning of this underwater boundary, which are bypassed here in the interest of brevity, the initial article in this series examining the OSB suggested that the boundary approved by SCOTUS in 2014 appeared to be directly at odds with the highest and strongest concept in the entire realm of boundary establishment, the principle of monument control.

In June of 2015, a response to the March article arrived, penned by one of our nation's most highly respected land surveying educators, and this article presented a distinctly contrary view of the matter. The author of the second article in this series, bringing extensive knowledge of the history and development of the law to the table, astutely explained the historical basis for the SCOTUS position, and thereby demonstrated why it was not problematic in his eyes. As he very wisely recognized, although boundary issues typically have title implications, and are inextricably tied to title issues under most circumstances, the genesis of the boundary at issue here indicated otherwise. Most boundaries, being typical private lines of division, are created to facilitate the independent use of adjoining lands that are suitable for separate conveyance, but not all boundaries are created to serve as divisions of title, and one readily recognizable alternate boundary function is to segregate and limit jurisdictional authority and

control. The concept that the OSB is primarily jurisdictional in nature is well supported by the fact that the origin of the litigation in question is embedded in jurisdictional uncertainty, which clearly motivated the federal action that ultimately required the recent boundary clarification judicially approved by SCOTUS. In 1947, the High Court first tackled the question of whether California or the US held the superior right to issue leases within the zone known as the "3 mile marginal belt", extending westward from the California shoreline. Although rights held by private companies operating as lessees within the submerged area were among those at stake, that was not seen by SCOTUS as a factor capable of controlling the outcome of the litigation. Instead, a majority of the Court saw the protection of US national security interests as the dispositive factor, and ruled accordingly, so the US emerged victorious on this occasion (FN 3).

The SCOTUS perspective, favoring the federal position regarding the legal status of "the marginal sea", over rights therein claimed not only by California, but by coastal states elsewhere as well, was not destined to prevail for long however. Responding to popular outrage over the physical limitation thus judicially imposed upon the rights of the states in 1947, Congress produced the Submerged Lands Act (FN 4) in 1953, effectively invoking the Equal Footing Doctrine with respect to the relevant ocean bedlands, for the benefit of all of the coastal states, thereby negating the efficacy of the prior line of limitation upon state title, which SCOTUS had described in 1947 as the "ordinary low-water mark" along the California coastline. Nonetheless, although state bedland title was by this means extended outward to the OSB in all coastal areas, that line was still recognized as being primarily jurisdictional in nature, and no need to define its location with exactness arose during the ensuing years, as the coastal states were generally well satisfied to partake of the rich oceanbed resources thus Congressionally bestowed upon them. At least 2 important lessons for those who have occasion to work with land rights at the state and federal levels can be gleaned from the developments noted so far. First, comprehensive knowledge of the historical development of the law can bring great clarity to many obscure but crucial facets of the law, which may not otherwise be apparent to those who simply read the law as it stands in print today. In addition, Congressional action on land rights issues is very often driven by prior judicial action, in other words, many Acts of Congress are in fact merely responses to developments that arise from the ongoing judicial interpretation of our vast body of codified law.

As we have already seen, the June article squarely addressed some of the principal concerns expressed in the March article, by examining the historical development and purpose of the line in question, to provide a better understanding of why that line has been judicially handled in a non-typical manner, when compared to boundaries of title created by means of a conventional grant. Moving beyond considerations focused upon the level or degree of precision with which this territorial limitation line can or should be physically delineated, we reach a larger and deeper question raised by the initial article, which is whether or not breaking or abandoning the relationship of that line with the corresponding ambulatory shoreline is wise or justifiable as a matter of principle. There can be no doubt that the concept of selecting permanent coordinates of any kind, derived by any method, for the purpose of locking into a given position any line which has previously been ambulatory in nature, rather than fixed, under the relevant principles of law, at least superficially appears to be antithetical to the principle of natural monument control. However, although coastal boundaries must necessarily be, and must always remain ambulatory, for obvious practical reasons, focused upon enabling unity of legal title to continue to coincide with the physical unification of the land itself despite the ravages of time, no such relationship is present to be maintained at the outer limits of the 3 mile beltway. As can readily be seen, the fact that no dry land exists in that remote oceanic location is not merely incidental or insignificant in this context. Quite the contrary, the inability to establish any form of typical upland monumentation in an isolated marine environment is a genuine factor in the decisive equation. As all experienced surveyors know, the value of any form of monumentation is largely dependent upon its proximity to the focal location, making the usefulness of a controlling monument which lies 3 miles away questionable at best (FN 5).

The Submerged Lands Act, which was obviously instrumental to the formal establishment of the OSB, as we have already observed, sheds informative light upon the question of how intensively or affirmatively tied to our perpetually eroding continental land mass that line was actually intended to be. The first indication that this physical connection was not intended to be absolute or precise is found in the language of the original Act, which refers to the "coast line" as a point of reference, without expressly identifying it however, as a natural monument intended to maintain permanent control over the offshore line that forms the subject matter of the Act. The second and more conclusive statement pertinent to the locational component of the offshore line is found in the supplemental language of the Act, as it has stood for fully 30 years now, which expressly provides that any portion of that line can be judicially "fixed by coordinates", thereby clearly negating any notion that this boundary must remain forever subject to the principle of monument control. As the author of the March article lamented, and as the author of the June article wisely acknowledged, it may well be unfortunate that the 1986 amendment, which added this supplemental language, included no guidance on the use of coordinates. Yet its not at all surprising that this omission, if it can be properly characterized as such, would be judicially regarded as inconsequential, at least until such time as some form of injury or damage stemming from the use of coordinates to define some portion of the line in question arrives to be adjudicated. As can readily be seen, the practical reality of the matter is that the 1986 amendment resulted from Congressional recognition that large portions of our coastline are rapidly receding, most notably along the highly vulnerable Gulf Coast, due to a conspiracy of natural events, so locking the offshore line down has become distinctly beneficial to certain states, and it was for this reason that Congress literally invited SCOTUS to proceed just as it did in 2014 (FN 6).

Given however, that rights to submerged lands everywhere within the boundaries of the US had already long been in place by the time this matter rose to prominence and garnered close attention in the middle of the Twentieth Century, a potentially legitimate question arises as to the constitutional consequences of any such judicial or Congressional intervention impacting the OSB line's location. Our judiciary has long recognized that any legal action which results in the locational alteration of a boundary in any manner can potentially be successfully characterized as a title issue, whenever it can be shown to either reduce or expand any given title. Does anyone, at the local, state or federal level, have the authority to impact existing property rights in a potentially adverse manner by means of a unilateral declaration converting a previously ambulatory boundary which pertains to multiple properties into one that is fixed in position? The answer is that only Congress has the authority to do so, but even an Act of Congress can constitute a taking of private property rights for public purposes, requiring compensation under the principle of eminent domain (FN 7). Although a judicial determination upholding state ownership of bedlands based on navigability does not constitute a taking, numerous cases at both the federal and state levels have confirmed that bedland title is just as subject to condemnation as upland title, so the position of boundaries both abutting and within submerged areas definitely can be an important factor in certain litigation. No such issue is presented by the OSB scenario however, because as we have previously established, that line's primary function is to define jurisdictional limits between governmental entities, and the position of that line has no legal connection with any privately held fee title, so official action pertaining to it's location provides no basis for any claim that such action may represent a public taking of any private land rights (FN 8).

Returning to the timeline of events leading up to the most recent involvement of SCOTUS with the OSB, we learn that it has indeed repeatedly required judicial attention over the decades, subsequent to the enactment of the Submerged Lands Act in 1953, as noted in the original March 2015 article previously referenced herein. After several years of relative tranquility, advances in drilling technology during the early 1960s, along with the resulting expansion of offshore exploration, brought closer scrutiny to the 3 mile territorial boundary, and California found itself highly motivated to seek to maximize the potential benefit embodied in the 1953 Act. The effort launched by California in that regard was doomed however, the state met with judicial defeat once again in 1965, as documented in another SCOTUS ruling (381 US 139) that was focused upon the selection of the parameters with which to ascertain the actual location of

the OSB. The true meaning and exact definition of the phrase "inland waters", which had been used in crafting the key locative language of the 1953 Act, was the primary point of contention at this time, and the presence of many islands comprising California territory further complicated the scenario. The evidence revealed that numerous options regarding how best to define the line which would function as the "base line" for the OSB had been given very thorough consideration by Congress in developing the 1953 Act. SCOTUS observed that extensive Congressional debate had taken place pertaining to the controlling effect that should be given to islands, and the hypothetical possibility of adopting a shoreline locked into position at a certain historic date, such as 1783, had even been considered, but of course that proposition was ultimately rejected, since no one could prove where the coastal shoreline had actually been at any such remote time.

The decision announced by SCOTUS at this time excluded several large bays from the definition of "inland waters", disappointing California in that regard, and based on clear evidence that the unified continental shoreline was envisioned by Congress in formulating the 1953 Act, the High Court also rejected the suggestion that the presence of islands, some of which lay far beyond the 3 mile beltway, could operate to deflect the OSB "baseline" seaward, in some areas over 50 miles from the mainland shore, as California for very obvious reasons ardently desired. Nonetheless, an independent 3 mile territorial belt around each relevant island was judicially approved, as illustrated in the aforementioned June 2015 article. SCOTUS explained the rationale underlying this ruling, in a manner which fully accords with the fundamental principle of boundary certainty, as follows: "Before today's decision, no one could say with assurance where lay the line ... hence there could have been no tenable reliance on any particular line ... after today ... expectations will be established and reliance placed on the line ... allowing future shifts ... to alter the extent of the Submerged Lands Act grant would substantially undercut the definiteness of expectation which should attend it ... freezing it ... serves to fulfill the requirements of definiteness and stability ...". Timeless principles such as reliance, definiteness and stability, which are among the paramount factors in boundary determination and resolution, were very appropriately invoked by the Court, providing ample justification for the outcome of this litigation. Just as importantly, although location was the core issue on this occasion, precision of location was not a factor in this equation, the judicial objective was simply to ascertain and clarify the Congressionally intended location of the OSB baseline in clearly understandable and specifically relevant terms, once that was done the judicial goal stood accomplished (FN 9).

The Submerged Lands Act was thus elevated to a higher level of practical usefulness, to California and other coastal states, and clarification was obtained with regard to many other specific areas, as various issues stemming from the Act were judicially addressed in numerous cases set in California and elsewhere, such as the one just discussed, over the ensuing decades, leading up to the 2014 case which produced concern on the part of some land surveyors, more than 60 years subsequent to the 1953 Act. As noted in the initial article expressing that concern, in March 2015, the OSB has never been fully at rest, and has continued to tax judicial resources, as ambiguities arise from place to place in coastal areas, from Florida to Alaska, requiring litigation and adjudication, of the same kind that has been generated by a great many other federal enactments pertaining to land rights, which have been notoriously short on specificity. In the case of the Submerged Lands Act however, the lack of locational detail appearing in the Act itself was at least in substantial part intentional on the part of Congress. The principal intent of Congress in formulating the Act was to overcome and bypass the adverse economic consequences which federal domination of all of the coastal zones had inflicted upon the coastal states. The primary focus of Congress was simply to achieve a preferable balance between the acknowledged federal responsibility to control all navigation in support of interstate commerce within such areas, and the right of the coastal states to derive financial benefit from precious undersea resources, which were found in very close proximity to their shores. The contributing legislators clearly and correctly never imagined themselves to be boundary experts, they simply trusted that any boundary issues which might develop would be wisely worked out, with judicial input when necessary, so they were fully comfortable putting in place a law which they well knew would, sooner or later, require the expertise of others to fully implement (FN 10).

Proper appreciation of the 2014 SCOTUS decree requires us to be mindful that the OSB, or 3 mile territorial limit, has always been viewed and treated first and foremost as a boundary between jurisdictions, rather than a typical title boundary, of the kind which our societal structure requires, wherever upland that is subject to independent development exists. Upon taking that perspective, we can see that the manner in which the positioning of that alignment or sequence of lines was handled was logically approved by SCOTUS in 2014 from a viewpoint focused upon practical convenience and usefulness, in order to enable that line to readily carry out its function, which is simply to provide clear and open notice to all marine operators of an important jurisdictional limitation in the area of their marine operations. Given this factual backdrop, illuminating the development of that line, it becomes clear that locational specificity, with reference to the line's exact position in relation to the mainland, was quite justifiably not the highest judicial priority relating to the demarcation of that line, since no relevant connection or controlling relationship between that line and the boundaries of any mainland title can be established. In summary, maintaining a precise relationship with the constantly fluctuating actual coastal shoreline was simply never intended to be a paramount consideration in the establishment of this particular boundary, as many aspects of its legislative and judicial history very fully demonstrate. Today, as this is written, the principle of monument control remains unchallenged, as the highest form of boundary control, but that principle has never been truly absolute, and it was never intended to operate to control distant alignments, in the manner envisioned when the OSB baseline concept entered our body of law. The 2014 SCOTUS decree, as we have seen, although reliant upon the integrity of coordinates for boundary control purposes, merely follows existing judicial precedent, and thus cannot be properly characterized as a harbinger of the imminent demise of the principle of monument control.

In November of 2015 a third article directly addressing the creation and the implications of the OSB appeared, and the author of this article, being an employee of the California State Lands Commission brought valuable personal knowledge of the methodology supporting the 2014 SCOTUS decree to the discussion. In addition to validating the integrity of the locative work done on the California portion of the OSB in recent years, by explaining that the process was a joint federal and state effort, in which numerous highly competent surveyors played an essential role, this article provided support for the position set forth in the prior article, dated June 2015, previously reviewed herein. As a highly experienced land surveyor, very well versed in the proper application of the fundamental principles that control the boundary resolution process, the author of this third article logically addressed the issues raised in the aforementioned March 2015 article from that perspective. Given that one of the core concerns over the validity of the OSB description approved by SCOTUS in 2014, expressed in that first article, centered upon the fact that the description contains self-contradictory language, the discussion of the relevant principles in the third article appropriately began by citing the principal rule applicable to all description analysis. The language employed in any legal description must always be read, interpreted and given meaning, in the light of all the evidence indicating what that language meant to the parties who developed or selected the words that were used. Any wise and proper description interpretation, and indeed all judicial description construction, focuses upon extracting the true intent of the original parties from any given legal description. In so doing, no language can be deleted or ignored, and nothing can be added, yet whenever ambiguity, uncertainty or conflict of any kind appears from the existing words, the sole objective is to achieve clarification by reaching an understanding of what those words meant to the parties who chose to use them.

As pointed out in the November article, it can be fairly stated that the legal description which SCOTUS approved in 2014 was not entirely free of ambiguity, even if the complete veracity of the voluminous coordinate list which appears therein is conceded. This is true because the 2014 description at least superficially presents conflicting intentions, since it initially states that the described alignment is "parallel to the coastline", yet it concludes by confirming that the OSB has been "immobilized ... and shall not be ambulatory". In reality, neither of these conflicting statements were necessary, the linkage of the described alignment to the coastline is both historically self-evident and clearly illustrated in the description exhibit, while the concluding statement is a mere reiteration of a portion of the

forementioned 1986 statutory amendment, thus both of these passages can be viewed as extraneous surplusage. It could well be argued that this description was unwisely composed, given that the inclusion of unnecessary items which serve to introduce even an appearance of conflict is generally regarded as poor practice in description creation. In this instance however, no harm arises from this innocuous ambiguity, as noted in the November article, because this description was created to serve a specific purpose, "freezing" the OSB, and that objective had already been statutorily authorized for 28 years by 2014, so no one cognizant of the law could possibly misunderstand the true intent of the 2014 decree. Clearly, the "parallel" reference appearing at the outset of this description was intended only as general information, a mere nod to the historical origin of the line, and can in no sense be seen as controlling language, dictating that the line must continue to migrate. Indeed, as land surveyors know better than anyone else, virtually every description having any dimensional content includes some degree of ambiguity, when applied in the physical world, as every description must be if it is to hold any value, because numerically defined locations will rarely if ever precisely coincide with the monumentation upon which such descriptive data is intrinsically dependent.

After adroitly addressing several concerns of a technical nature, which were raised in the March article, the author of the November article very astutely introduced another highly relevant factor into this discussion, which had been substantially bypassed by the composers of both the March and the June articles. As we have learned, when viewed in proper historical context, the OSB is clearly a non-typical boundary, created to serve a unique jurisdictional purpose, distinct in that regard even from inland submerged boundaries, because it segregates lands that will certainly never be unsubmerged, yet even though permanently immersed in oceanic waters, the OSB is pertinent to a select and limited group of title interests. Landward of that line, the bedland title is in each coastal state, while seaward thereof title is in the US, and although we can be fairly sure that no issues related to boundary fences, hedges or walls will ever plague this particular boundary, it nonetheless presents a scenario in which the land rights interests of two, and only two, entities meet. While it may be fairly argued that the manner in which any boundary line was created should have no impact on either the accuracy or the precision with which a land surveyor would retrace or restore that line, and every boundary is worthy of equally high respect, the practical usefulness of any given line is typically a relevant factor in boundary resolution from the judicial perspective. Any boundary location which becomes a source of practical reliance of a mutual nature, supporting valuable or otherwise meaningful use of the adjoining lands, by either the fee title holders themselves or their tenants, will typically find favor in the eyes of the judiciary. The important additional concept bearing upon the adjudication of the OSB scenario, as the third article correctly pointed out, is that of boundary agreement, and both the great value embodied in that concept and its judicial significance are in fact quite well displayed here.

Although the adjoining parties in this case, who were long embroiled in controversy over oil and gas revenue, are both governmental entities, rather than farmer Jones and neighboring rancher Smith, or home owner Johnson and adjoining business owner Thompson in the urban context, they are all nonetheless abutting holders of fee title, with full authority to enter an agreement to amicably settle any boundary uncertainty which may plague them. While such parties cannot act in violation of the Statute of Frauds, by making any deliberate alterations to their mutual boundary in an undocumented manner, they have the authority to put a conclusive end to any boundary uncertainty they are mutually experiencing, and rather than being chastised or penalized, efforts of that kind are typically judicially welcomed and rewarded. Enlisting the services of a land surveyor for that purpose is always a wise choice of course, since proper documentation of any agreed boundary is a valuable asset, and a documented boundary agreement is obviously preferable to an undocumented one. When viewed from this perspective, the approval of SCOTUS for the OSB alignment agreement reached by the US and California, supported as it was by the work of a substantial team of duly authorized surveyors, becomes readily palatable. The High Court was not only open to the adoption of the agreed boundary, the Justices were genuinely appreciative of the cooperative steps that had been taken by the former combatants, to effectively resolve their own fundamentally ambiguous and problematic boundary in a mutually

beneficial manner. As previously indicated herein, and as the 2014 SCOTUS decree demonstrates, the primary judicial emphasis, whenever any court is confronted with a scenario involving boundary resolution, is typically on boundary stability, and for that reason any action taken by the litigants themselves to put the matter in repose, by means of agreement upon any particular boundary location, will typically prevail and be given legal effect.

For land surveyors in particular, acknowledging that the 2014 SCOTUS decree in question represents judicial ratification of an agreed boundary of a unique variety is a key factor in reaching a proper appreciation of the virtue and value which are embodied in both the agreement itself and the process through which it obtained judicial approval. The principal source of disagreement between the esteemed professionals who have publicly commented on this matter relates to the integrity of the methodology that was employed in the coordination of the California OSB, and also to the potential future repercussions of the judicial approval of that methodology. In that regard, it must be recognized that in a typical boundary agreement scenario, involving the owners of typical private properties, the role of the land surveyor is narrowly limited, to properly documenting the agreed boundary location through the use of his or her professional expertise, since only the parties themselves hold the authority to select and agree upon the actual location, thus the surveyor plays no role in the location selection process. In the OSB scenario however, the agreeing parties are not typical private land owners, with no capacity to properly document their own agreement, they are governmental organizations, which employ well qualified professionals, who are fully capable of implementing appropriate methodology for boundary documentation purposes. Therefore, whenever any such entities agree upon a means of defining the physical limits of the jurisdiction of each entity, and they also agree upon methodology that is mutually satisfactory to them, for the purpose of documenting their agreement, the chosen methodology represents a fundamental component of the agreement itself, and the entirety of the agreement, including the means by which it is to be implemented, is judicially presumed to have been competently developed and documented.

Thus we can plainly see that in reality the coordinated portions of the OSB have no nefarious or detrimental ramifications for any property rights lying along or associated with any coastline, in California or elsewhere, because the activity which periodically motivates the coordination of various portions of that boundary bears no relation at all to the title issues or the riparian principles that control the fate and the physical extent of all coastal properties. In fact it is legally impossible for the coordinated alignment approved by SCOTUS in 2014 to have any controlling effect beyond that which it was intended to have, and the clear intent of both of the parties to this case, and of the Court as well, on this occasion was simply to more effectively define Congressionally mandated jurisdictional limits, by establishing a more readily identifiable line at which state jurisdiction gives way to federal jurisdiction. Moreover, given the well known rule of law and equity that no judicial decree pertaining to title can ever have any adverse impact upon any rights held by any party or entity who took no part in the litigation, the outcome of this case has no direct impact whatsoever upon any form of privately held title residing upon any California tidal lands or lying anywhere landward of the tidal zone, nor does it alter or even threaten to alter the location of any boundaries thereof. Therefore, this SCOTUS decree presents no direct or immediate source of concern for either property owners residing in such areas or land surveyors working in such areas. In truth, the development of the coordinated OSB alignment was implicitly affirmative of the valuable contribution to our society that is made by land surveyors, since it represented a major investment of public funds supporting extensive survey work, and thus operated as a means of job creation for both surveyors and survey technicians over a period of several years.

Yet it cannot be said that there is no genuine basis at all for any type of concern regarding the future consequences of this 2014 SCOTUS decree, because not every judicial decree is fully understood or properly leveraged by subsequent generations. Any one of the several existing OSB cases which have resulted in the production and judicial approval of legal descriptions that are wholly dependent upon coordinates could eventually be judicially cited as justification for elevating measurement based control

to a position of primacy in the realm of boundary demarcation. It is quite possible that future courts will become more inclined to support measurement based control, and less inclined to honor physically established boundaries, and the OSB cases do tend to point in that direction. As previously noted, these cases are distinctly non-typical and are thus clearly judicially distinguishable from upland boundary cases and typical riparian boundary cases as well, because the monumentation options available when dealing with a permanently submerged boundary do not equate to those found anywhere else in our world. We have also seen however, that there was some degree of inherent conflict involved in the evolution of the coordinated OSB, as rightly suggested in the original March 2015 article, regarding the relevance of various boundary principles to a line of that kind, emanating from differing perspectives upon the true nature and purpose of such a line. We can only hope that the utilization of coordinates in the OSB cases will be properly appreciated by those who will adjudicate boundaries in the future, and that the very limited value of these cases as judicial precedent will be recognized. Nonetheless, the rulings of SCOTUS regarding boundary issues rooted in the Submerged Lands Act have been both rational and appropriate, as was wisely observed in the June and November articles, being based upon sound application of historically established boundary principles.

In conclusion, it must be acknowledged that the author of the first in the series of 2015 articles focused on the OSB deserves credit for presenting this matter to his fellow professionals, and for the educational value cascading from it we are all indebted to him. The author of the second article must be credited for properly addressing the matter at hand in historical context with genuine wisdom, and for successfully taking a position directly contrary to that of a professional colleague while maintaining complete decorum in so doing. The author of the third article is worthy of credit for astutely recognizing that this matter provided a fine opportunity to emphasize the relevance and significance of the boundary agreement concept, which ranks among the most important, yet also the most neglected, principles of law and equity. As Omar Khayyam so wisely observed several centuries ago "the moving finger writes, and all of our tears cannot wash out a word of it", reminding us that time is unmerciful to those who neglect to act promptly, and that the urgencies of today will invariably soon fade away, rapidly eclipsed by other sources of urgency. Although some surveyors have only recently taken notice of the arguably objectionable manner in which Congress and SCOTUS have seen fit to allow coordinate geometry to be leveraged for purposes of boundary delineation and description, a well established body of precedent to that effect has now stood for many years as a part of our boundary law and has thus become well solidified. If ever there was any real opportunity for the land surveying community to take some form of action to prevent judicial approval of coordinate based boundary control, that day has long passed. The best case scenario going forward is now one in which the importance of complete metadata, bringing enhanced certainty to coordinated boundaries, may yet be successfully communicated to our judiciary, thereby enhancing the efficacy of boundary litigation that is yet to come.

Footnotes

1) The illustrious gentlemen who directly participated in the public discussion relating to boundary establishment that played out in 2015, by contributing material for publication in printed form, listed in the order in which their articles on this topic appeared, Mike Pallamary, Chuck Karayan and Evan Page, are all based in the west and have all long been recognized as leaders of the land surveying profession. Although their educational efforts have been outstanding and should certainly be celebrated, the primary purpose here is not to applaud their individual achievements, or to compare and contrast the knowledge possessed by each of them, the objective here is to emphasize the benefit, in terms of educational value, that all open dialog focused on advanced subject matter holds for the land surveying profession collectively.

2) The full text of each of the articles referenced herein can be readily obtained at www.amerisurv.com. Everyone with an interest in such matters is encouraged to read these articles, with high appreciation for both the expertise of the authors, and their willingness to invest their valuable time in the furtherance of

professional education.

3) This 1947 SCOTUS decision (332 US 19) which was dissented by 2 Justices, expressly denied the assertion, set forth by California, that the primary value or significance embodied in the OSB pertains to title or ownership of the relevant portion of the ocean floor, and must therefore be based upon the Equal Footing Doctrine. In so ruling, SCOTUS stated "The crucial question ... is not merely ... bare legal title ... the United States here asserts rights ... transcending those of a mere property owner ... it asserts ... power and dominion necessary to protect this country ... also its capacity as a member of the family of nations ... it asserts that ... constitutional responsibilities require that it have ... control and use of the marginal sea and the land under it." Thus SCOTUS clearly regarded the OSB as fundamentally jurisdictional in nature, expressly rejecting the suggestion that it should be treated as a typical boundary between adjoining title holders. Quite interestingly, this same judicial rationale or paradigm, intermingling governmental authority or control over water with the title status of bedlands in the course of adjudication, has historically had, and still has today, a profound impact upon American jurisprudence in the realm of navigability litigation, but for now we must leave that fascinating issue to be more deeply explored upon another day.

4) The Submerged Lands Act was originally codified as 67 Stat 29, aka Public Law 31 in 1953. It was last amended in 1986, under Title VIII of 100 Stat 82, aka Public Law 99-272, and since that time has been typically referenced as 43 USC 1301, et seq. Interestingly, Congress actively sought to nullify the 1947 SCOTUS ruling against California prior to 1953, passing a bill to that effect which was vetoed by President Truman during the final months of his presidency. The election of President Eisenhower, who was more inclined toward limiting federal rights and jurisdiction, altered the balance of power in 1952 however, leading to the adoption of the Act in 1953, which represented a major victory for the coastal states in the land rights arena. The Act marked an economic triumph of very significant proportions, which signaled the rising power of the coastal states, and of California in particular, providing those states with a financial windfall, by shifting a very substantial amount of revenue derived from oil and gas extraction from federal control to state control. The full text of this landmark Act can be readily obtained through the web at no charge by means of a keyword search.

5) In 1960, just 7 years after the arrival of the Submerged Lands Act, the case of *United States v Louisiana* (363 US 1) required SCOTUS to cogitate upon the fundamental nature and purpose of the OSB, in the process of adjudicating a dispute focused upon the interaction and tension that existed between the plain language of the Act and historically based popular notions regarding coastal boundaries throughout the Gulf Coast region. In so doing, SCOTUS observed that "A land boundary between two states is an easily understood concept ... the concept of a boundary in the sea, however, is a more elusive one. The high seas ... are subject to the exclusive sovereignty of no single nation ... however, a nation may extend its national authority into the adjacent sea to a limited distance ... a country is entitled to full territorial jurisdiction over a belt of waters adjoining its coast ... however, this jurisdiction is limited ... such a boundary ... confers rights more limited than a land boundary". Thus SCOTUS communicated the view that determining the position of all ocean boundaries of sovereign states and nations represents a distinct portion of the spectrum of boundary law, since such boundaries must be evaluated from a jurisdictional perspective and must be governed accordingly.

6) The 1986 Submerged Lands Act amendment, approving the use of coordinates as a means of defining any portion of the OSB, was not merely a Congressional directive, it actually signified Congressional acceptance of an established judicial practice. By 1986, SCOTUS had already adopted the use of coordinates as a valid means of describing boundaries of the kind represented by the OSB, viewing coordinates as a legitimate option for that purpose, in the light of modern technological advances, which in the eyes of the Court made coordinate geometry a reasonably reliable tool, suitable for use in the identification of boundaries. The 1975 SCOTUS decree in the case of *United States v Louisiana* (422 US 13) provides an example of such use of coordinates, in a manner that is directly comparable to their role in

the aforementioned 2014 SCOTUS decree.

7) The federal legislation which instituted and enabled the well known but highly controversial "railbanking" concept presents a particularly poignant example of Congressional action which has been judicially confirmed to constitute a compensable taking of private land rights for a public purpose, applicable to multiple locations nationwide. Numerous cases are available for further reading on this topic, the 2012 Federal Claims Court case of *Thomas v United States* (106 Fed Cl 467) which refers the reader to numerous prior cases of the same nature, being one particularly good recent example.

8) If controversy involving the exact location of the OSB were to arise in the context of privately held land rights, any such litigation would most likely result from the presence of rights acquired by holders of leases, issued under either state or federal authority. Land rights of lease holders distinctly differ from those of fee title holders, since the rights of lessees are wholly dependent upon the rights held by the party or entity that issued the lease. Therefore, even a dispute involving the rights held by one or more private parties or corporations operating as lessees near the OSB would not equate to a contest between typical holders of private fee title, since such litigation could not proceed without representation of the state and federal fee interests.

9) California suffered an overall defeat on this occasion, but did not lose on every point, for example SCOTUS agreed with California that Monterey Bay represented inland water, and also agreed that the "line of ordinary low water" along the mainland coast, referenced in the 1953 Act, was properly determined by utilizing only the lower of the 2 daily low tides, rather than all of the low tides, identifying that line as the "lower low water line", while recognizing that any such line is obviously subject to continual fluctuation from natural causes. Like the 1947 SCOTUS ruling previously discussed herein, this ruling was dissented by 2 Justices. The position taken by the dissenters, along with many aspects of the majority position, are not referenced here, in the interest of brevity. Readers desiring more detailed information are encouraged to review the full text of this case and the resulting decree (381 US 139 & 382 US 448) as well as the others cited herein, all of which are readily available to the public at no charge through various internet sources.

10) An illustrated 14 page essay, entitled "Fixing California's Submerged Lands Act Boundary - A Federal-State Success Story", produced by the Bureau of Ocean Energy Management, an agency within the US Department of the Interior, dated 12/29/15, is freely available to all on the web. This publication features a broad overview of coastal boundary issues, providing important historical context, along with detailed information about the role of technology in the development and refinement of coastal boundaries in the modern era, all of which is presented in a format that can be readily appreciated by surveyors and non-surveyors alike.

(The author, Brian Portwood, is a licensed professional land surveyor, a federal employee, and the author of the Land Surveyor's Guide to the Supreme Court series of books, devoted to advanced professional education focused upon effective conceptualization of the nexus and interaction between title and boundary law.)