Volume 21: Issue 3
October, 2010

LINES & POINTS

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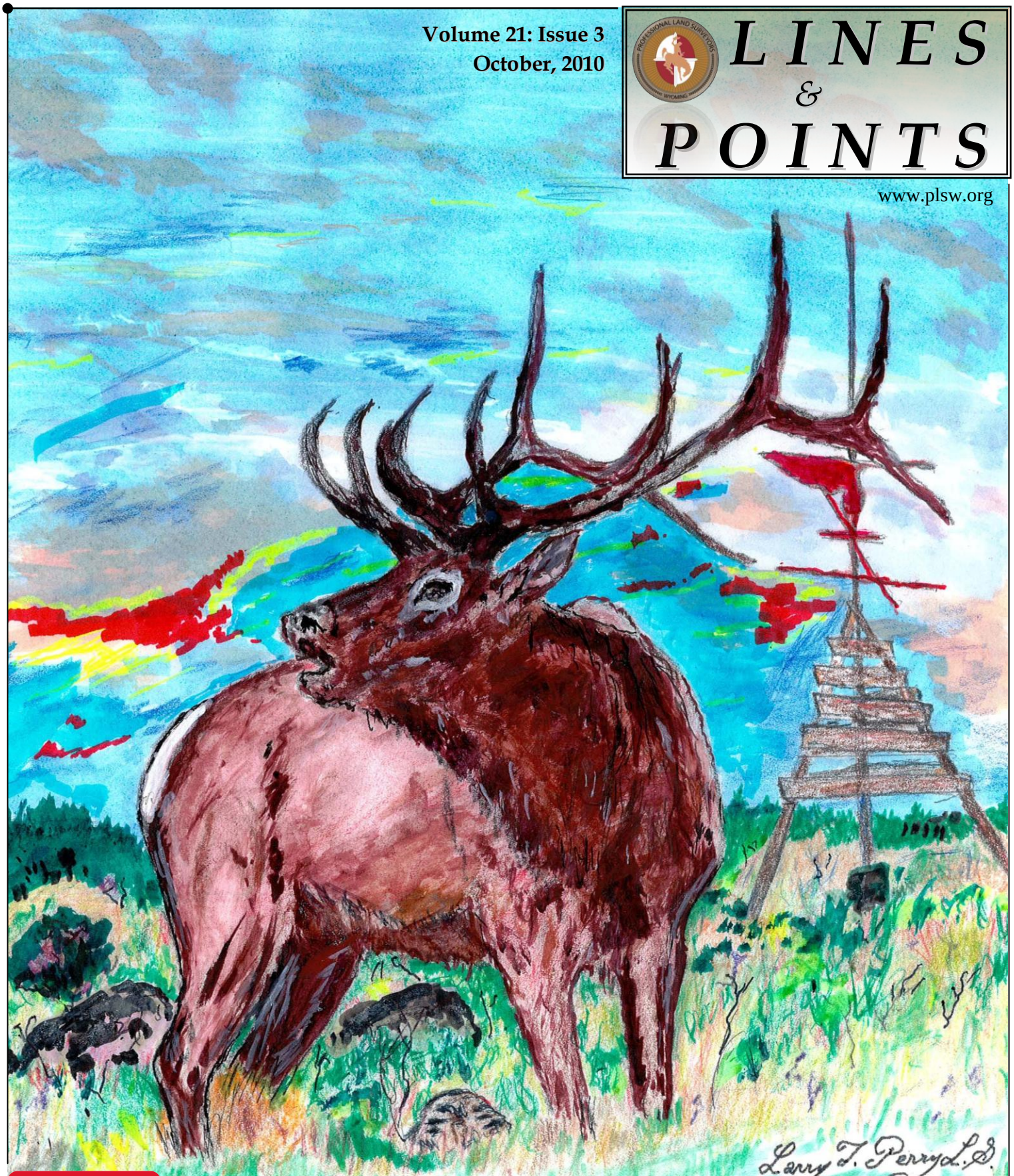


THE EQUALITY STATE SURVEYOR

PROFESSIONAL LAND SURVEYORS OF WYOMING

DIAGRAM
Showing Triangulations to connect the South and West Boundaries
of the
WIND RIVER OR SHOSHONE INDIAN RESERVATION.

CONTENTS

PLSW (Professional Land Surveyors of Wyoming) is a statewide organization of Registered Land Surveyors licensed to practice in the Equality State of Wyoming. PLSW is dedicated to improving the technical, legal, and business aspects of surveying in the State of Wyoming. PLSW is affiliated with the National Society of Professional Surveyors (NSPS) and the

PRESIDENT'S MESSAGE

Hello again. Summer has come and summer has pretty much gone with children now back in school. The routine continues. Hopefully all of you got to take a little bit of a break sometime this summer to go somewhere, see something different from the normal routine, have a little bit of fun in the process, and enjoy your family.

This is also the time when the Chapter meetings start up after breaking for the summer. Please support your chapter.

Dennis Dawson is visiting with the County Clerk's in an attempt to start the process of an online corner recordation depository. We are not sure how this is going to pan out, but the process has been started.

I hope that you have a good fall, and I am looking forward to seeing you at the Fall Technical Session.

Sincerely,
Mark Rehwaldt
President, PLSW

ANNOUNCEMENTS / MISC.

- The Wyoming Board of Registration is now offering Professional Land Surveyor candidates the opportunity to take the 2-hour State Specific Examination on a given day each month during the year. The upcoming examinations will be administered in Cheyenne at the Board Office on July 19th, August 16th, and September 20th, 2010.
- The 2010 Annual Meeting and next PLSW BOD meeting is expected in conjunction with 2010 Fall Technical Session, November 4 – 5, 2010 at the Ramkota Inn in Casper. Please email agenda items or request meeting minutes to Secretary Marlowe Sherbel at plsw@ssltd.net.
- Next Wyoming Board of Registration For Professional Engineers and Professional Land Surveyors meetings are expected to be held on December 13th of this year.
- The WES President's Project of the Year Award is due on Jan. 4, 2011. The criteria for the submittal can be found on the society's web site: www.wyomingengineeringsociety.org
- Please email your scanned artwork or digital photos to mike.flaim@bresnan.net or send larger files on CD or DVD to Lines and Points, P.O. Box 8, Cheyenne, WY 82003. This issues cover is simply entitled: "Elk" by Larry T. Perry, LS 3047.
- Wyoming County Clerks Association has been asked to consider what processes could be used to facilitate the digitizing of Wyoming Corner Recordation Forms and ability to make them available on the internet.
- The University of Wyoming Land Surveying program is assembling an Advisory Board, and is looking for volunteer Board members. Interested parties should contact Mark Rehwaldt at (307) 766-1700.

From the Prexy Pasture Survey Crew:

Late summer has again returned to Laramie and the Prexy Pasture Party Chief is at it again. It is the beginning of the annual survey of Prexy's Pasture. The thing I like and impresses me is that the students are enthusiastic, and enthusiasm is contagious. For me, it is a treat to watch them develop, to go from not having a clue, to starting to figure out what they are doing and why. This is the part of the job that I really enjoy!

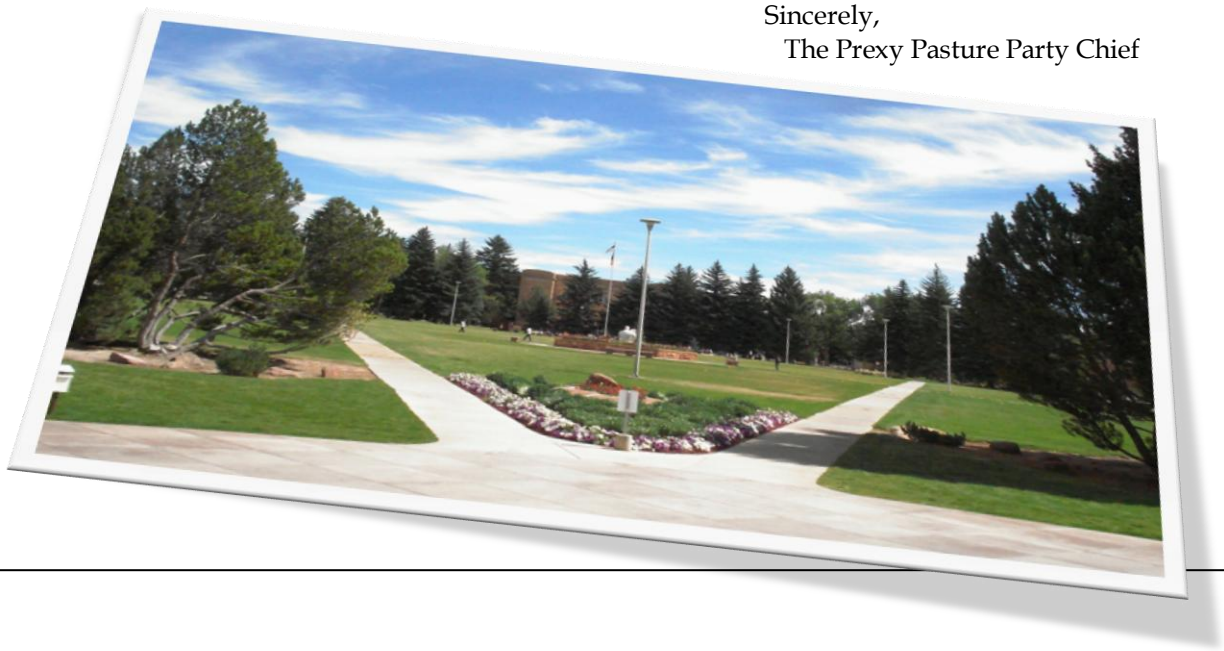
Other news is that Lindy Johnson is putting together a one hour, five week class on using Excel Spreadsheet for surveyors. Route Surveying is a numbers crunching class. My intent is to teach principles and after the students crunch the numbers one time, they have pretty much learned the principles. Running the calculations for the additional stations of the curve becomes just an exercise in correctly punching the buttons on the calculator. Lindy's class will help familiarize students with spreadsheets. This will eliminate much of the tedium in the calculations and help prepare the students to be more productive and efficient when they are out working.

Also, Chuck Karayan is taping Inland Water Boundaries for first time delivery in spring 2011. Chuck's approach for teaching the water boundary classes is from the perspective of how the law developed. Our water boundary law originally developed in the Roman Empire. When the Roman's conquered the British Isles they brought their law with them. When the British colonized the Colonies they brought their laws, including the coastal water boundary law, with them. Later the inland water boundary law was developed in the United States based the applicable coastal water boundary principles. Chuck has a surveying practice in California. His clients are survey firms and attorneys who need specialized boundary advice.

The part of the job that is more stressful is the mandate that the Land Surveying Outreach program become financially self supporting. Translated, this means that tuition needs to cover all program expenses. In 2008 Wyoming experienced a drop in state income and UW's budget was cut. After Rod Skaggs resigned, UW eliminated his position rather than let somebody else go. The Department of Civil and Architectural Engineering, the College of Engineering and Applied Science and the Outreach School are committed to the Land Surveying program and currently support my position on a temporary, part-time basis but as budgets continue to tighten, there is constant pressure for those funds. I am not keen on the idea of raising tuition for surveying classes, but if tuition is not raised, there may be no Land Surveying Program at UW. To solve a problem more heads are better than one – please pass on any suggestions you have to help ensure a strong surveying program at UW.

With that said, I will sign off for now. I have students waiting to head out to Prexy's Pasture.

Sincerely,
The Prexy Pasture Party Chief



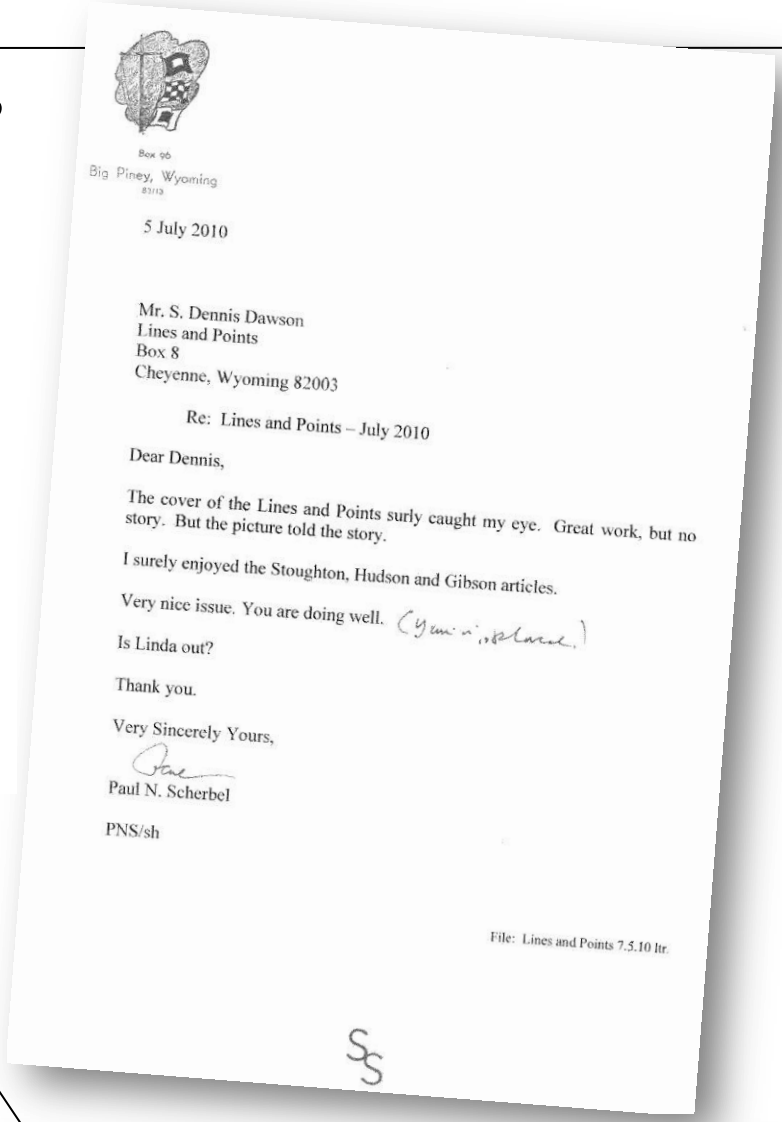
LETTERS TO THE EDITORS

Paul:

On behalf of the Lines and Points Editorial Committee, I want to thank you for your letter about the July 2010 issue of Lines and Points. We have received a good deal of support from the PLSW surveying community, and always glad to receive another "at a boy", especially from you. Your approval is uniquely appreciated because of your stature in the surveying community of Wyoming and surrounding areas. We (the committee) hope to continue producing a publication that is interesting and informative to our profession.

As for your question, the short answer is no! The committee considers Linda one of "the Crew" just as much as before Lines and Points began being published out of Cheyenne. We believe that Vickie Hudson's passing put a heavy load on Linda, and she needed help to get through this period. Linda is always welcome to return to the Lines and Points committee whenever she might wish to be involved again. We wish to thank Linda for her past work, and look forward to involvement on whatever level she would like.

Thanks again for your letter.
Dennis



Box 96
Big Piney, Wyoming
83113

5 July 2010

Mr. S. Dennis Dawson
Lines and Points
Box 8
Cheyenne, Wyoming 82003

Re: Lines and Points – July 2010

Dear Dennis,

The cover of the Lines and Points surly caught my eye. Great work, but no story. But the picture told the story.

I surely enjoyed the Stoughton, Hudson and Gibson articles.

Very nice issue. You are doing well. (You're in balance.)

Is Linda out?

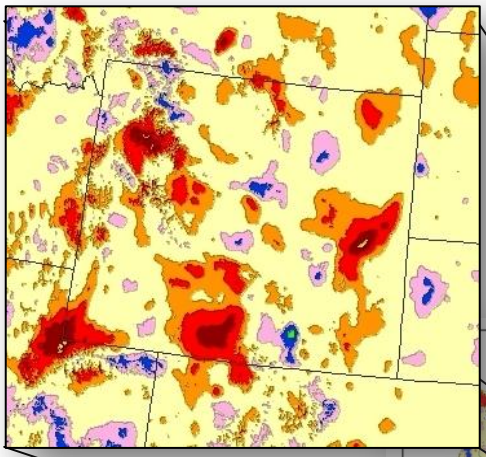
Thank you.

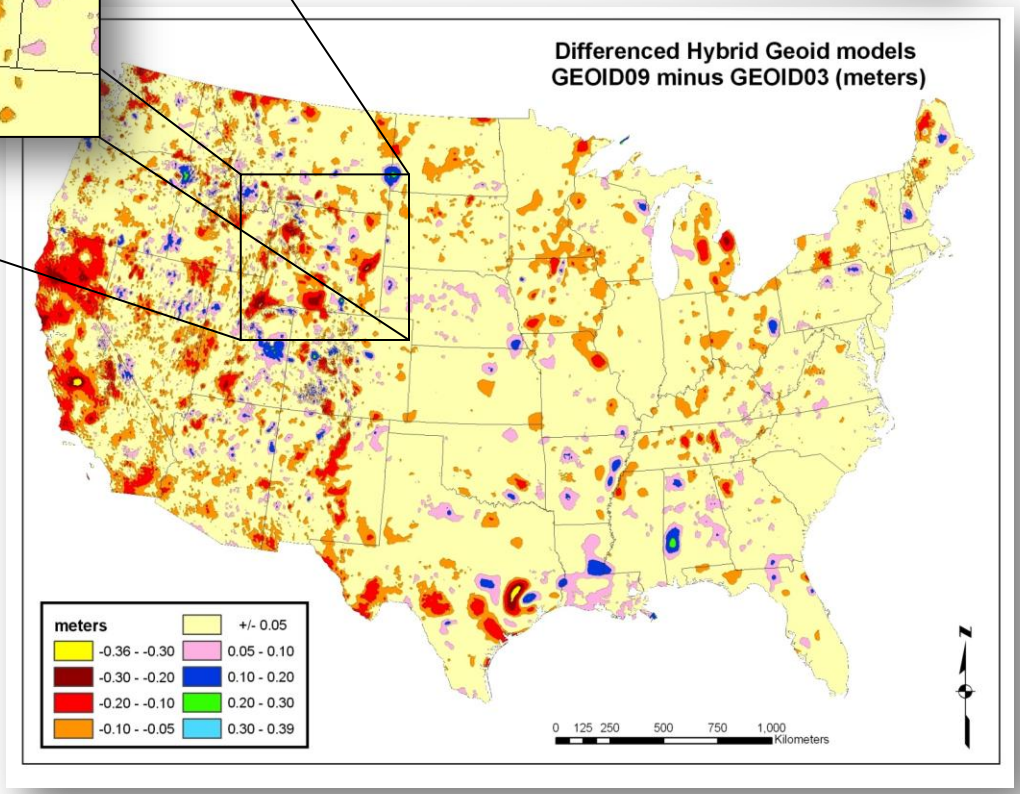
Very Sincerely Yours,

Paul N. Scherbel

PNS/sh

File: Lines and Points 7.5.10 ltr.





This illustration was produced by the NGS advisor in Arizona who was looking at the differences between the Geoid 09 and Geoid 03 models. For Wyoming, we see that we have regions where the differences between models are fairly considerable. So the advice is not to assume equivalence between models and do not switch in the middle of a job.

Mike Londe, Ph.D.
Geodesist, Information Management and Technology Group
NGS Wyoming Geodetic Coordinator

Noisy Quads on Public or Private Lands

When the weekend warriors saw the sign that said, 'no trespassing' on the sandbar they drove their quads right past it. This land was public land and no one had the right to keep them out. They moved the obstacles placed over the access trails and enjoyed a wild time on the sandbar.

The land in question was a sandbar that had over many years developed along the bank of a major Alberta river. The landowner with land adjacent to the sandbar claimed the sandbar as an extension of his own land and erected the 'no trespassing' signs. As far as he was concerned, the people with quads were trespassing. He kept putting up more barricades to keep visitors out.

Who was right—the quaders or the landowner?
The quaders contacted Alberta Sustainable Resources and complained that the landowner was illegally denying them access to the sandbar. Coincidently a gravel extraction company wanted access to the same sandbar. The eventual resolution to the ownership dispute came from an investigation by an Alberta Land Surveyor (ALS) retained to conduct a boundary survey to determine actual boundaries and the true ownership of the land. Determining natural boundaries is one of the many activities of a professional land surveyor.

- The land surveyor considered various factors
- Was the intent of the original survey to have the property boundary defined by the water body (a natural boundary)?
- Had the boundary gradually changed due to long-term natural actions of the water?
- Was the vegetation on the sandbar aquatic or upland?
- What was the nature of the original Land Title?
- What was the survey history of the area?
- What did historical aerial photos of the site show?

He first determined that the sandbar could potentially be within the landowner's titled area. The land title read: *"All that portion of said quarter section which lies to the north of the left bank of the river."* A landowner can gain or lose lands if the boundaries described in the title are affected by water gradually receding or rising. Land can be added (accreted) or lost (eroded) if the changes are gradual and not manmade. The added land cannot increase the amount of land beyond the boundaries described on the property title but they can add to lands within the titled area.

The land surveyor noted that the sandbar had become permanently dry except for annual spring flooding. Over the years upland vegetation had slowly crept out onto this sandbar and currently formed a distinct line against the aquatic vegetation on the shoreline. The land surveyor determined that this vegetation line marked the bank of the river and was thus the natural boundary of the property. Nearly all of the sandbar was within the natural boundary and within the area described on the landowner's land title. The result was that the areas of the sand bar under dispute belonged to the landowner and neither the quaders nor the gravel company had any right to access.

- This article is reprinted with credit given to the *Boundaries* newsletter and the Alberta Land Surveyors' Association.

STOP SIZING SECTIONS [i] - IT'S ILLEGAL

(Besides, It's a Big Waste of Time and Money)

By Jeffery N. Lucas

You're wasting your time and your client's money sizing a section. This activity does not comport with either federal law or state law on the subject. In other words, the practice is against or not authorized by the law. Another way of saying this is that the practice is "illegal." It is time to finally step back and ask a basic question (a question I asked in this publication [Turning Points] back in 2002); what purpose is fulfilled by sizing a section? If in some way you find a purpose then answer the next question. What law or rule of surveying supports this activity? If you are going to say state of federal law, forget it. I'll address these laws in a few moments. If you're going to say the Manual provides this instruction, then it is clear that you don't understand the Manual and have never actually read it.

The "Manual of Surveying Instructions 2009" [ii] (2009 Manual) is out in print and even though the 1973 Manual covered the same ground that I'm going to cover in this article, the 2009 Manual removes any doubt that may have existed in the minds of land surveyors as to the role of the local surveyor in the subsequent subdivision of the sections after the GLO surveyors left the field. For the most part, the GLO surveyors set eight corners around any given section. With the smallest unit of administration under federal law being the 40-acre aliquot part tract, this left 17 corners comprehended in the plan of subdivision but not set in the field.

This begs an interesting question that seemingly gets asked and answered over and over again, through the years, decades and centuries since the GLO surveyors left the field leaving their paltry framework behind. Who is supposed to set these other subdivision corners and how is that activity to be carried out? The follow-up question that continues to be asked 150-200 years later is what do we do when a previous attempt to subdivide the section was not performed by following proper procedures or if the results are deemed "not close enough" by today's standards? Why else would we be sizing a section today that has already been subdivided previously? The only possible reason would be to determine if the earlier work was done correctly by comparing it to current results.

The real question that no one is asking is why does this matter? Every land surveyor understands, generally without question, that if the original GLO surveyor set a section corner at 79 chains instead of 80 chains, or if proper procedure for setting section corners were not followed, that absent fraud or some other extraordinary circumstance, wherever this original surveyor set the corner is where it is. You would be out of your surveying mind to ever attempt to "correct" such a corner. Many surveyors in this and other states, including some who may be reading this article, don't understand what the basis of this rule is and why it is followed, but they understand that this is the rule.

When it comes to the subdivision of the sections the rules seem to change. If a local surveyor, sometime in the past, subdivided the section and dropped a chain, then the work done by this surveyor is subject to correction even 100 years later. Says who? Where is it written? What is the legal foundation for this proposition? The simple answer is there is none, this is pure surveyor mythology. The 1973 Manual covered this but the 2009 Manual drives the point home.

> The function of the local surveyor begins when employed as an expert to identify lands that have passed into private ownership. … The work of the local surveyor usually includes the subdivision of the section into the legal subdivisions shown upon the approved plat. *In this capacity, the local surveyor is performing a function contemplated by law*. [iii] [Emphasis added.]

The federal government contemplated under the law that local surveyors would be hired to further subdivide the sections; not the GLO surveyors, they weren't coming back. This simply means that the local surveyor hired to subdivide the section was to step into the shoes of the GLO surveyor

under the system. Further, this local surveyor, serving a function contemplated by law, would be the original surveyor for the subdivision of the section corners and where they were actually run on the ground, absent fraud or some other extraordinary circumstance, is where the legal subdivision of the section would be forevermore. This is as true for the GLO surveyor as it was for the first surveyor to subdivide the section because this is what federal law mandates on the subject.

> By law, (1) the corners marked in public land surveys shall be established as the proper corners of sections, or of *the subdivisions of the sections, which they were intended to designate; (2) the boundary lines actually run and marked shall be and remain the proper boundary lines of the sections or subdivisions for which they were intended*… . The original corners shall stand as the true corners they were intended to represent, even though not exactly where professional care might have placed them in the first instance. [iv] [Emphasis added.]

The 2009 Manual further drives home the point:

> A decision to set aside previously fixed local survey legal subdivision corners must be supported by evidence that goes *beyond mere demonstration of technical error*, reasonable discrepancies between former and new measurement, and less than strict adherence to restoration and subdivision rules. Were the Federal Government obliged to open the question as to the location of a particular tract or tracts over technical differences or reasonable discrepancies, *controversies would constantly arise, and resurveys and readjudication would be interminable*. The law gives these activities *repose*. It is unlawful for the surveyor to impair bona fide rights as to location. Proof of impairment of bona fide rights as to location per 43 U.S.C. 772, *when lines have been run and marked and corners marked and fixed by local survey, must be positive evidence of an intentional departure from the legal principles governing recovery of original corner location*, reestablishment and establishment of corner location, or subdivision of a section. [v] [Emphasis added.]

Finally, Alabama law is in full support:

> *43 U.S.C. § 752* provides that the corners of a section and any other landmarks within the section established by the original government survey shall be adhered to in the future. However, it does not purport to state that every time a survey is made of a line dividing a quarter of a section into quarters, the original government survey of that section must be retraced. Moreover, First Beat has cited no case law holding that *43 U.S.C. § 752* requires such a retracing. *The reasonable inference to be drawn from the earlier surveys locating the south line and the iron pipes marking the termini of the south line was that earlier surveyors had located the termini of the south line and its location based on the location of the four corners of Section 26 as established by the original government survey of Section 26*. [vi]

Once a section has been subdivided the federal system contemplated that it was to remain subdivided forever. Stop sizing sections that have already been subdivided. The only possible outcome will be more costly litigation over established boundary lines, the continued demise of the reputation of the land surveying profession, the proliferation of pincushion corners, "and the visitation of the surveyor [will continue to] be set down as a great public calamity." [vii]

First appearing in the July, 2010 edition of "Turning Points," the monthly newsletter of the Alabama Society of Professional Land Surveyors. Reprinted with permission.

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[i] "Sizing" a section is a regional colloquialism for the process of subdividing a section, on paper, into its aliquot parts based **on locally accepted section corners. This mathematical** subdivision, or "breakdown," is usually taken to the 40 acre tract level. The debate rages from this point as to what to do with the results.

[ii] "Manual of Surveying Instructions 2009." U.S. Dept. of the Interior, Bureau of Land Management, Cadastral Survey, Denver, Colorado, Government Printing Office.

[iii] *2009 Manual* at Sec. 3-131 thru 3-132.

[iv] *2009 Manual* at Sec. 3-4. *1973 Manual* at Sec. 3-4. Rev. Stat. 2396. 43 U.S.C. 752.

[v] *2009 Manual* at Sec. 3-137.

[vi] *First Beat Entertainment, LLC v. EEC, LLC*, 962 So.2d 266, 271 (Ala.App.2007).

[vii] *Diehl v. Zanger*, 1878 Mich. LEXIS 375, 7 (Mich. 1878). Concurrence by Cooley.

WILLIS ISLAND SURVEY LEGACY

R.L. "Rick" Hudson, L.

PART III
THE CENTENNIAL SHORT STORY

Until now, this story has related factual, documented information gathered from sources with impeccable reliability. I now leave those sources and offer an imagined situation taking place today, Sunday, November 29, 2009.

Through some unknown, and thus mysterious, mechanism of the universe, I find myself transported back in time to Monday, November 29, 1909, and in the presence of Deputy Surveyor Od Midthun and chainmen William Perry and Erwin Froyd. They are about to commence the original survey of an island in the Big Horn River, two miles north of the settlement of Thermopolis, Wyoming. I introduce myself and respectfully ask Mr. Midthun for permission to join and assist them, without compensation of course. After pondering my request briefly he nods his agreement, but with the stipulation that "You can come along, but stay out of the way - and don't ask a bunch of questions." I agree and watch as the sun finally rises over the ridge and casts long shadows on this clear and calm, but cold and frosty, morning a little before 8:30. He had carefully set up his transit over the section corner on the range line and now aligns the solar attachment to the sun, the telescope pointing the way, due North, for the chainmen to commence measuring distance. I am pleased to see the chain is actually a steel tape, similar to the type used by me in the 1960s and 70s, two chains or 132 feet in length, rather than the looped link chain, a quarter or half that length, commonly used during the 19th century. This is going to be a great day!

FIRST RIVER CROSSING
THE ORIGINAL RIGHT BANK MEANDER CORNER IS NOW IN THE RIVER, NEAR THE PRESENT LEFT BANK

SECOND RIVER CROSSING - NOW COVER SLOUGH

With Bill at the head and Erwin at the rear, they stretch the chain on the ground where it is flat, otherwise with one end elevated, as they measure the horizontal increments and mentally note the total distance to topographic features and improvements. As we advance, Mr. Midthun directs Bill with arm signals to set a point on line before dropping out of sight; then carries the instrument forward, thus projecting the line north. After crossing the road from Thermopolis to Holt, we come to the right bank of the river, as it flows easterly, and the meander corner set by Deputy Surveyor Stahle ten years earlier when he originally surveyed the range line. Having recovered many of Mr. Stahle's corners since 1980, I am delighted to see one in such pristine condition. The hard sandstone is firmly planted, the chiseled marks plainly visible, just as described in the field notes. While waiting for Mr.

Midthun to bring up the gun, as the instrument was then and still called, I wonder to myself how we will be crossing the river. Not the survey method, short-base triangulation, which I have used often before electronic distance meters were available; rather my concern is with how we would be crossing the slow-moving but cold water. My unspoken question is soon answered when Erwin wades through knee-deep water to the island and sets a flagged range pole on line near the top of the bank. Mr. Midthun now turns a right angle, and he and Bill carefully measure the baseline to a second point where Bill remains with a second flagged range pole.

Now Mr. Midthun wades the river, keeping the gun high on his shoulder and carefully planting each foot before moving, "Wouldn't want to dump the gun in the river would we," he says, to which I agree "No sir." Soggy but safely on dry ground, he sets up the instrument and measures the bearing/distance angle to Bill, sits down, pulls out his trig tables, and computes the distance across the right hand channel of the river. We are now 36.24 chains north of the section corner, it is mid-morning, and we continue north, across the downstream portion of the island. At the theoretical midpoint, 40.00 chains or one-half mile, Bill drives a wooden stake for the temporary quarter corner, and we continue to the left bank of the island.

DENSE UNDERGROWTH
FORMERLY WILLOWS, NOW RUSSIAN OLIVES

THE BLUFFS
VIEWED FROM THE HIGHWAY

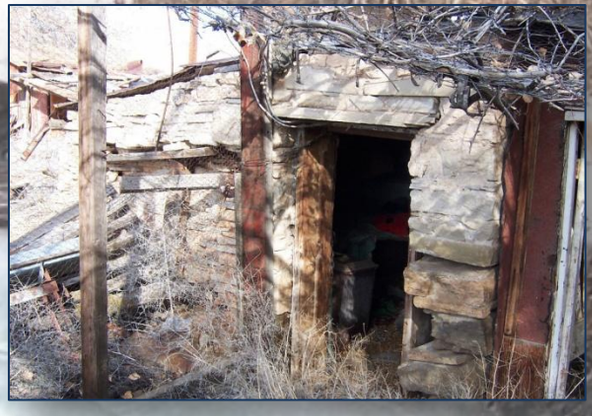
We are met by Emery Willis in a rowboat, who settled on the island and constructed a stone house near the upstream end. "You boys ready for these rocks you left here last week?" he says as he heaves out three fine-looking sandstones, each about 18 inches long and bearing the appropriate numbers and letters chiseled into the sides. These will mark the meander corner we are at, the quarter corner 2.71 chains back, and the first meander corner on the other side of the island. He then hands Bill a sack, "the missus sent this out for you-all", and departs on foot. As we eat the sandwiches and cookies, Mr. Midthun explains they had selected and marked the stones last week and that Erwin, and maybe Bill, will plant them, dig pits, and raise earth mounds either later today or tomorrow. "Surely you didn't think we all stood around watching him chisel and set them did you," offering a chuckled explanation to my unasked question. A few chains upstream I see the fresh railroad fill and downstream the wooden trestle under construction. "That's why we're doing this survey" he says as we finish eating and go back to work.

As done earlier, we triangulate across the river, this time to the Stahle meander corner on the left bank of the left channel. We cross using the rowboat since this channel is deeper and continue north, easily chaining across the valley and the main road to Kirby. Now we begin the difficult ascent of the rimrock bluffs, sometimes chaining less than 25 links with each pull. It is tough going and after a short break to catch our breath and admire the view from the top, we finally reach our destination section corner.

By our measurements we have come 80.02 chains, closely agreeing with the Stahle crew's 80.00 chains or one mile. Since the falling of our line, opposite the Stahle stone, is also within a couple of links, Mr. Midthun announces "We're within limits on Ed's survey - let's head back down." and we descend via a less challenging portion of the bluff.

We return to the island, move the temporary stake for the quarter corner north one link to the measured midpoint, then walk back to the meander corner on the right bank of Willis Island. Since the range line passes through the island, we commence the meander traverse by heading downstream, in Section 19, generally following the top of the 7 to 8 foot high cut bank marking normal high water. The brush and willows are thick but devoid of leaves; and less difficult to get through than the Russian Olives that will be introduced in a few years. Since a meander traverse is for determination of area only, and the angle points are not monumented, we hack only enough brush for line of sight and distance measurement. After one course northeasterly and two courses northwesterly we tie into the other meander corner.

Returning to the first meander corner, now late-afternoon with the sun steadily dropping, we hasten to finish meandering through the brush before sunset. As before, we trim brush for line of sight but use stadia rather than chaining for distance. Bill plumbs the graduated hardwood rod over the temporary point and Mr. Midthun sights through the transit, setting the upper line on a target at the top of the extended 16-foot rod and reading the graduation at the lower line. A simple computation results in a distance, which is within a few links of what we would have measured with the chain. Mr. Midthun explains "We only use stadia for meandering where it's really tough to clear the chain through the brush - the boys know if they kink that chain and break it they owe me a new one."



"WILLIS HOUSE"
NOW WEST OF THE HIGHWAY

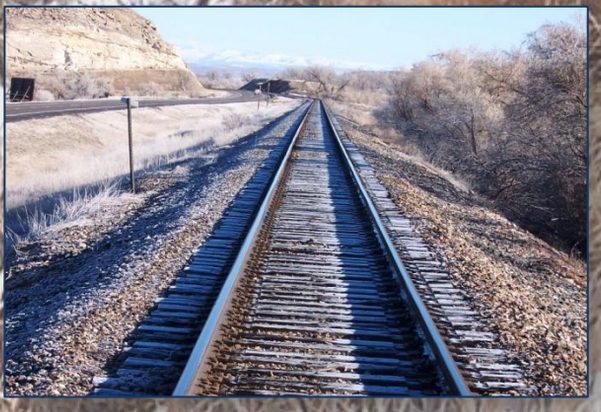
A few chains upstream I see the fresh railroad fill and downstream the wooden trestle under construction. "That's why we're doing this survey," he says as we finish eating and go back to work.

We continue upstream, using stadia for two more courses, until finally breaking out into the open near the upstream point of the island. Bill leads us, at a pace only slightly less than military double-time, chaining around the point, now downstream across the road and past the Willis house. At the last temporary point before reentering the brush, we make a tie, by stadia, to the house and Bill thanks Mrs. Willis for the grub. Mr. Willis, with axe and bowie knife in hand, comes along to cut line so we can finish before dark. Two more courses through the brush, still chaining, over the railroad fill and finally our meander corner appears in the rapidly fading twilight. We tie in, Erwin coils and throws the steel chain into a double loop, and we head back to the house. Mr. Willis hitches up the buckboard and the crew climbs aboard for the three-mile trip back to Thermopolis.

As had happened this morning, I am mysteriously returned to the present. Parked along East River Road, waiting for the shadows to fade, I glance at the cell phone - Sun, Nov 29 9:20 am. It's clear, calm, frosty; 20° F according to the dashboard thermometer; yet I sense something peculiar. Have I dozed off and had a dream? Have I had my first major "senior citizen memory lapse"?

I drove out here to take digital photographs on the centennial of the Willis Island survey. As I get out of the vehicle I somehow sense "This is going to be a great day!", then I look down at my soggy boots and damp pants - and reach into my vest pocket with dirty and scratched hands for Od Midthun's field notes. I look at the dog, "Chloe, nobody's going to believe this really happened - or are they."

WILLIS ISLAND
VIEWED NORTHWESTERLY FROM EAST RIVER ROAD



THE RAILROAD, FROM CROSSING - "COVER CUT" AND BIG HORN MOUNTAINS IN BACKGROUND

Previous: (April 2010, V21-1): *Part I – A Capsule of History*
(July 2010, V21-2): *Part II – The 1909 Original Survey Legacy*

The Judicial Functions of Surveyors
Thomas McIntyre Cooley
1824 – 1898

By
Herbert W. Stoughton, Ph.D., P.E., P.L.S., C.P.
Geodetic Engineer

Part III – Justice Cooley's Remarks

The opening paragraph of 'Cooley' is the most important pronouncement. These opening sentences state the underlying philosophy and conduct that a land surveyor should utilize in practicing the profession. Without these attributes, the land surveyor could encounter unforeseen difficulties that could result in an adverse solution.

From this opening statement, Justice Cooley proceeds to develop the ideas and indicate their application to the existing (then) practice of land surveying. The first surveys in Michigan were Aaron Greeley's surveys of the French land claims in Detroit (commenced 30 January 1808). The actual surveys of the sectionalized portion commenced with a contract issued by Edward Tiffin to Alexander Holmes dated 18 April 1815. A second contract was entered into with Benjamin Hough and dated 12 October 1815. The surveys would continue until the last contract was issued in April 1852. After that period, minor contract surveys were executed to address minor omissions found in the earlier work.

Cooley's writing is clear, concise, and factual. Although not a surveyor, Cooley clearly understood the Michigan land surveying problems. He recognized the deficient quality of many of the original contract surveys and some real property subdivisions. He did not castigate the earlier surveyors, but outlined the general problems occurring throughout Michigan.

Cooley commenced with the fundamental legal tenet that the original lines and monuments must hold - no matter the amount of 'error' or deviation from the theoretically prescribed location. It should be stated here that the description of reestablishing section corners is based upon Michigan statute (1869), and not on *Restoration of Lost and Obliterated Corners* (1883).

Cooley's four precepts about "extinct corners" are not pragmatic legal verbiage, but articulate rhetoric. The lay person (non attorney) can comprehend the precepts and the technical/legal issues. The Michigan land surveyor must understand these principles because they override the GLO/BLM philosophy on "lost and obliterated" corners for all lands that have been patented. Land surveyors in other states could be governed by the "extinct corner principle" if court decisions elsewhere have been written and sustained through the appellate process.

Cooley continued his dissertation with a number of general, but practical, illustrations of *faux pas.* He did not clutter the document with bureaucratic legalese.

For a document of such brevity, it contains much useful information. In this brief document, the land surveyor will find a wealth of information incorporated in a broad spectrum statement of the duties and responsibilities of land surveyors. [Remember, in 1881/1883, land surveyor registration was over two decades in the future.]

Little analysis of Justice Cooley's paper has been written. Numerous writers have referenced the paper, but have not delved into the document.

Recently, an in depth discussion has been published. In the sixth edition of *Clark On Surveying And Boundaries*, Walter G. Robillard and Lane J. Bouman wrote an excellent commentary and analysis of Cooley's paper [§4.18; pp 109 - 115]. The authors have commented upon earlier interpretations, and have presented a candid discussion of the arguments and counter arguments for various points of Cooley. This analysis is for both attorneys and land surveyors. Although land surveyors have accepted "Clark" as a principal reference for over seven decades, the work is an invaluable reference to the legal profession.

Cooley is not "light" reading, but a well organized and thought out treatise, which became a foundation for land surveying practice. Reading the paper is not an academic exercise, but should be mandatory for all professionals. It is interesting to note that the philosophy set forth in Cooley is equally applicable to the other design professions (engineering, architecture, and landscape architecture).

Thomas Cooley's paper is not a time-dated document stating era-specific principles and doctrines. The document is not late 1870's early 1880's pronouncement, but a philosophical statement of the land surveyors' role in boundary determination and boundary retracement. Justice Cooley's thoughts from eleven decades past are not solely for his era, but a comprehensive philosophical statement of the responsibilities and duties of land surveyors.

Previous:
(April 2010, V21-1): *Part I - Biographical Sketch*
(July 2010, V21-2): *Part II - Introduction*

NCEES
advancing licensure for engineers and surveyors
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NEWS RELEASE
August 30, 2010
Contact: Jennifer Williams
Corporate Communications Editor

Hutchison honored for service to NCEES

Peter J. Hutchison, P.E., P.L.S., of Cheyenne, Wyoming, has been awarded the NCEES Distinguished Service Award for his dedicated service to the engineering and surveying professions. NCEES recognized the 2010 award winners at its Annual Meeting, held August 18–21 in Denver, Colorado.

A member of the Wyoming Board of Registration for Professional Engineers and Professional Land Surveyors from 1997 to 2009, Hutchison served as board president for three years during his tenure. He is now an emeritus member of the board.

Hutchison has served on numerous NCEES committees. He has been a member of the Committee on Examination Policy and Procedures since 2008. He was a member of the Committee on Examination Audit from 2004 to 2008, serving two terms as chair. He was a member of the Committee on Examinations for Professional Surveyors from 2001 to 2004 and also served as a committee resource. From 2000 to 2002, he was a member of the Committee on Nominations.

Hutchison has worked as a subject-matter expert for the surveying exam development committee for the past 12 years. In 2009, he chaired the jury for the inaugural NCEES Engineering Award for Connecting Professional Practice and Education. He currently serves as NCEES representative to the Applied Science Accreditation Commission of ABET.

Hutchison is a past president of the Wyoming Engineering Society and a member of the organization's scholarship committee.

ABOUT NCEES
NCEES is a national nonprofit organization composed of engineering and surveying licensing boards representing all U.S. states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands. An accredited standards developer with the American National Standards Institute, NCEES develops, scores, and administers the examinations used for engineering and surveying licensure throughout the United States. NCEES also provides services facilitating professional mobility for licensed engineers and surveyors. Its headquarters is located in Clemson, S.C.

P.L.S.W. TECHNICAL SESSION

NOVEMBER 4 & 5, 2010 • BEST WESTERN RAMKOTA HOTEL • CASPER, WYOMING

GENERAL INFORMATION

PRE-REGISTRATION:

FEE: $100 PLSW Members
$50 PLSW Affiliate Members
$175 Non-Members

A $20 late registration fee will be added to all registrations received after October 29, 2010.

AGENDA

November 4th	7:00 a.m. - 8:00 a.m.	Registration
	8:00 a.m. - 12:00 p.m.	Seminar
	12:00 p.m. - 1:00 p.m.	Luncheon
	1:00 p.m. - 5:00 p.m.	Seminar
	5:00 p.m. - 9:00 p.m.	Social Hour
November 5th	7:00 a.m. - 7:45 a.m.	Breakfast Buffet
	8:00 a.m. - 12:00 p.m.	Seminar

Rights and Responsibilities in the Lands of Others - The Effects of Easements on Surveyors' Work:

Easements are rights given to one party to use the land of someone else. Both sides have certain rights to be protected as well as responsibilities to preserve the existence and usefulness of the easement. The Land Surveyor is often asked to determine the location of easement rights on the ground, based upon a written description, but sometimes an inspection of the property reveals uses not publicly recorded. What makes an easement an easement, when does an easement cease to exist, and how do easement rights affect land use? What is the Land Surveyor's responsibility in reporting recorded or unrecorded land use?

Tracking the Railroads:

Railroads have played a major part in the settlement and development of the United States. The importance of these bands of steel uniting the country was underscored by the powers granted to railroad companies to acquire land rights in whatever way necessary, whether by grant, in fee, or as easements. Surveyors involved with the original location and layout of the rails had a much easier time of it than we do today, as we try to recreate not only original configuration of rails and parcels, but also what kinds of rights the railroad companies may have had in the land beneath their tracks. We will discuss historical, legal, and practical aspects of the problems we face today as we unravel the railroad puzzle.

Elevation Certificates Update:

A new version of the Elevation Certificate effectively replaced the old version in February 2009 with a number of modifications. It incorporates changes that further distinguish between the surveyor's role in floodplain management and that of the municipal official. New building diagrams have been added. The instructions have been rewritten to clarify the varied uses of the form. If you are already familiar with the Elevation Certificate, this class will bring you up to date with the changes, section by section, taught by a member of the work group updating the Elevation Certificate. If you are new to Elevation Certificates, the class will provide enough information to get you started in completing them.

LOCATION AND LODGING

A block of rooms has been reserved at the Best Western Ramkota Hotel, 800 N. Poplar Street, Casper, Wyoming. Rate: $67.00 per night. Telephone: 307-266-6000.

PROFESSIONAL DEVELOPMENT HOURS

12 Professional Development Hours will be awarded for the entire seminar.

FOR MORE INFORMATION, CONTACT:

Bill Fehringer 307-995-2620
Paul Svenson 307-266-2620

NSPS MAP/PLAT COMPETITION

The Wyoming Land Surveyors NSPS Map/Plat Design Competition will be held in conjunction with the seminar. Send your entries to Bill Fehringer or bring them to the seminar.

WENDY LATHROP

Wendy Lathrop is licensed as a Professional Land Surveyor in New Jersey, Pennsylvania, Delaware, and Maryland, and as a Professional Planner in New Jersey. She holds a Master's degree in Environmental Policy, and has been involved in surveying since 1974 in projects ranging from construction to boundary to environmental land use disputes. Wendy is also a Certified Floodplain Manager through the Association of State Flood Plain Managers (ASFPM). A former adjunct instructor at Mercer County College in New Jersey, Wendy has also taught as part of the team for the licensing exam review course at Drexel University in Pennsylvania. She has been teaching seminars for surveyors since 1986 and has been writing articles for surveyors since 1983. Wendy represented the American Congress on Surveying and Mapping on the Technical Mapping Advisory Council to the Federal Emergency Management Agency for the five years of that advisory group's appointment. She was a panel member of the National Academy of Public Administration's study of US Geographic Information resources and of the National Research Council's study of flood hazard mapping accuracy. Wendy is a past President of the New Jersey Society of Professional Land Surveyors and of the National Society of Professional Surveyors, and has served on the Board of Directors for the American Association for Geodetic Surveying.

P.L.S.W. REGISTRATION FORM

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PROFESSIONAL LAND SURVEYORS OF WYOMING

❑ APPROVED BY **BOD** ❑ REJECTED BY **BOD** SEC./TREAS. _____ DATE _____

PLSW MEMBERSHIP APPLICATION

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MEMBER - WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

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STREET OR BOX _____

CITY/STATE/ZIP _____

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EMPLOYER _____ **YOUR TITLE** _____

States other than Wyoming in which you are registered: _____

Additional information or comments *(optional)*: _____

CLASS OF MEMBERSHIP APPLIED FOR: *(Check one only and please submit dues with application, prorated for the remainder of the calendar year.)*

❑ **MEMBER,** ANNUAL DUES $75. (Persons duly registered, PLS or PE&LS, Wyoming.)

AFFILIATE MEMBERSHIPS

❑ **Associate Member,** annual dues $50. (Persons employed under the direction of a PLS and toward PLS registration in Wyoming.)

❑ **Special Member,** annual dues $50. (Persons not meeting above qualifications but with a particular interest in, or association with, the profession of land surveying.)

❑ **Special Member,** Student, annual dues $15. (Persons pursuing a post secondary academic course of study, and currently enrolled.)

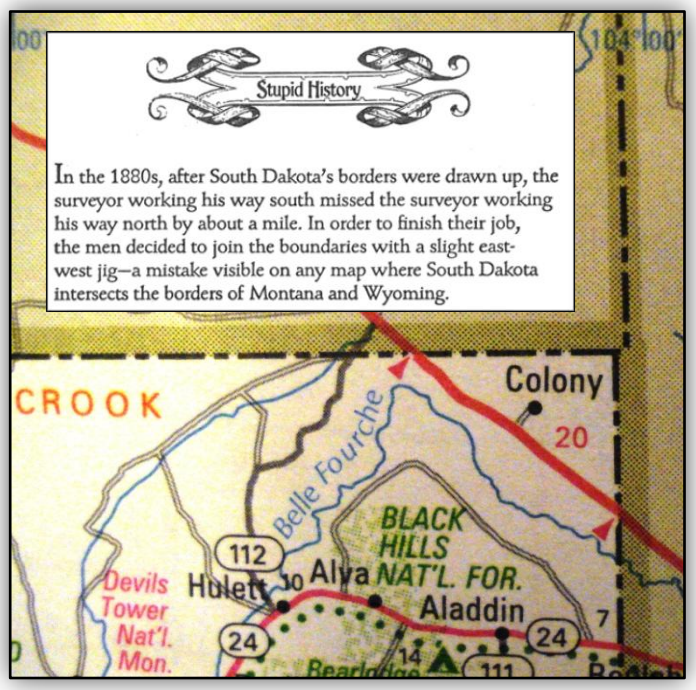
❑ **Sustaining Member,** annual dues $100. (Persons, institutions or corporations desiring to assist PLSW financially.)

I AGREE TO OBSERVE THE BY-LAWS OF THE PROFESSIONAL LAND SURVEYORS OF WYOMING AND THE CHAPTER THEREOF TO WHICH I WILL BELONG AND TO SUPPORT SAID ORGANIZATIONS IN THEIR ENDEAVORS.

_____ _____

APPLICANT'S SIGNATURE **SPONSOR'S SIGNATURE**
(For Affiliate Member applicants only.)

NOTE:All portions of the state have chapters. See map for specific boundaries. Chapter dues or assessments may vary in amount. Applications are considered by the Board of Directors at quarterly meetings. Send completed application to PLSW, c/o Marlowe Scherbel, Sec./Treas., P.O. Box 725, Afton, Wyoming 83110



Comments? Opinions? Need to place an ad? Need to announce an event? Interesting story, picture or art work? Please send it all to the editors!

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