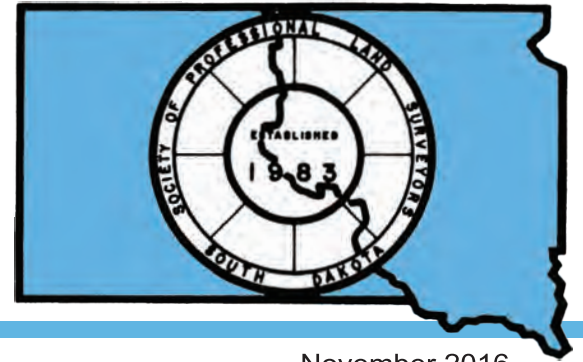


BACKSIGHTS & FORESIGHTS



Volume #26 Number 4

November 2016

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SDSPLS 34th ANNUAL CONVENTION

January 11, 12 and 13, 2017
Cedar Shore Resort – Chamberlain, SD



“Let us seek, let us search, let us examine, let us inquire”

St. John of Damascus

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7 1/2" x 5"	\$50 per issue
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PUBLICATION DEADLINES

<i>Material Cutoff</i>	<i>Publication</i>
January 15	February 1
April 15	May 1
July 15	August 1
October 15	November 1

Backsights and Foresights

Backsights and Foresights is the official publication of the South Dakota Society of Professional Land Surveyors. It is published quarterly. Material published is not copyrighted and may be reprinted without written permission as long as credit is given. All material must be submitted by the middle of the month preceding the issue date, and should be directed to: The Executive Director.

Articles and columns appearing in the publication do not necessarily reflect the viewpoint of SDSPLS but are published as a service to its members, the general public and for the betterment of the surveying profession. No responsibility is assumed for errors, misquotes or deletions.

FROM THE PRESIDENT:

It's hard to believe that it's already November and that it won't be long before it gets really cold. We've had such a beautiful fall so far! Just would like to bring everyone up to date on a few things we discussed at our last Board of Directors meeting.

The 2017 convention has been finalized and should be quite interesting and informative. Remember that the convention starts on Wednesday, January 11, and ends on Friday, January 13, 2017!

One of the items that will be introduced for discussion at the Annual Meeting is what should we, or do we need to, do about compliance with the requirement to file Certified Land Corner Record (CLCR) forms? Do we hold with the existing statutes that have not been enforced and have widely carrying degrees of compliance? Do we try to change the statute such as broadening the means of compliance to include such documents as plats and Records of Survey and possibly establish sanctions for non-compliance? Or do we do away with the statute? This should be a lively discussion and introduction to a topic that will take time to assess. Hopefully our Chapters will take up the discussion over the coming year.

Another item for consideration at the Annual Meeting is the proposed ByLaw Amendments, which were in the last newsletter and are posted on the SDSPLS website. Most of the items are "house-keeping" details, although the ByLaws, Ethics and Standards Committees have been combined into a "Professionalism and Practice" Committee.

The Board of Directors also approved the first recipient of the SDSPLS R. Turner Scholarship – which is for a student enrolled in a 4 year surveying degree program. Congratulations to Aaron Boock as the first recipient of this scholarship! Aaron is a recent graduate of Southeast Technical Institute and was one of our scholarship recipients in 2016. He is currently enrolled at Saint Cloud State University.

JUST A FOOTNOTE: This summer I traveled to Glacier National Park and saw what a beautiful park it is. What totally blew me away was the Going to the Sun Road. Did you know that it took 23 years to construct, and can you imagine what the surveyors went through to make this project a reality! Truly a 20th century marvel.

See you at convention!

2016 SDSPLS President
Louis O'Donnell, PLS

34th ANNUAL CONVENTION

Cedar Shore Resort, Chamberlain, SD
See enclosed flyer for registration and additional information
or contact Janelle at 605-348-1538,
janelle@fisklandsurveying.com
or visit the SDSPLS website at www.sdspls.org

Wednesday - January 11, 2017

Missouri River Commission Surveys Early Vertical Datums of the USGS

Jerry Penry, LS

LSIT Course –

Fractional Sections

Mineral & Homestead Entry Surveys

Eric Meyer, PLS & Mark Lippincott, PLS

Fundraising Auction

Thursday – January 12, 2017

Measurement is Dead

Quality Assurance & Quality Control

The Land Surveyors Professional Obligations

Michael Pallamary, PLS

NSPS & SDBOTP Updates

Annual Business Meeting

Banquet, Awards & Entertainment

Friday – January 13, 2017

Curtis Brown Chronicles

Michael Pallamary, PLS

NGS Update & Register of Deeds Forum

LSIT Course –

Introduction to Geodesy &

State Plane Coordinates

Rod Breitling, PLS & William Phillips, PLS

Alternate/Concurrent Session

Wednesday & Thursday

January 11 & 12, 2017

OPUS Projects - David Zenk, PE, LS

This is a limited registration session (20) for those with a firm background in GPS. Registrants must attend both sessions and provide their own laptop

ANNUAL
SDSPLS
SURVEY *Photo* CONTEST

Bring a print of your favorite survey project photograph to the convention with your name and a short description of the photo or project.
(8" x 10" maximum please)

**Winner to receive a
\$100 CABELA'S
GIFT CARD!**

SDSPLS reserves the right to post entries on the SDSPLS website and/or print in *Backsights & Foresights* (with appropriate credit).

SDSPLS – Board of Directors Meeting

Friday, October 28, 2016

Breakwater Room – Cedar Shores – Chamberlain, SD

(This report subject to Board approval)

Participants: President Louis O'Donnell, President-Elect Fred Leetch, Past President M. Ben Lamke, Treasurer Steve Thingelstad, West River Chapter President Chad Dodds, Missouri River Chapter President Dana Edwards, Executive Director Janelle Finck.

1. Call to Order: The meeting was called to order at 12:06 (central) by President O'Donnell.
2. Acceptance of Agenda: ++Motion by Thingelstad to approve the agenda as presented, 2nd by Lamke. Motion approved.
3. Secretary's Report – Eric Howard: Minutes of the July 29, 2016 BOD meeting provided for review. ++Motion by Lamke, 2nd by Leetch. Motion approved.
4. Treasurer's Report – Steve Thingelstad: Quarterly Report provided for review. General discussion – expenses tracking and verification of Scholarship Accounts. ++Motion by Dodds to approve the report as presented, 2nd by Edwards. Motion approved.
5. President's Report – Louis O'Donnell: O'Donnell reports that there has been no activity this quarter but that Lonnie Anderson has some special items to donate to the Fundraising Auction.
6. Committee Reports:
 - a) Education – Kristi Goehring: No report.
 - b) Legislation – Gary Andersh: No report.
 - c) DPC – Don Jacobson: No report.
 - d) Standards – Dean Scott: No report.
 - e) Public Information – Mark Lippincott: No report. Finck provides copies of revised "It's Your Land" brochure/flyer and requests final comments before posting on the website and making available to the general membership for their use. Discussion about making flyers available to the Register of Deeds offices and possibly Title companies.
 - f) Membership – Ron Fisk: No report.
 - g) NSPS – Tom Berkland: No report
NSPS Young Surveyors – Beau Koopal: Email report provided.
 - h) Trig Star – Steve Thingelstad: Thingelstad indicates that he is interested in trying to expand the Trig Star contest across the state, but would need local support and assistance.
7. Chapter Reports
 - a) West River Chapter – Chad Dodds: No report.
 - b) Big Sioux Chapter – Wade Lunders: No report.
 - c) Missouri River Chapter – Dana Edwards: No report.
8. Old Business
 - a) Special Use Find – Grant Applications: Discussion postponed in Goehring's absence. Finck to request current form status so that BOD can proceed with grant applications.
 - b) 2017 Convention: Review and discussion of the last hour of session – Corner Records vs Register of Deeds

Forum. Decision to take the last hour, invite 3 +/- Register of Deeds to discuss the general topics of Corner Record Filing and the new Electronic Recording. Interest expressed in making this hour and ongoing part of convention to keep current with issues such as plat titles, restriction of photo of plats and documents, mylar vs paper for signature page of plat documents, etc. Finck to contact Julie Risty and verify that we can coordinate the limited discussion. Chapter Presidents to assist in moderating the discussion. Still need to resolve the issue of entertainment. There is a jazz ensemble available in Sioux Falls. Lamke recommends a hypnotist from Sioux Falls and Finck to follow up on that lead. It is confirmed that we will not have binders for general convention material this year. We will provide events schedule, Annual Meeting information and membership roster in bound format, with additional pages for notes.

- c) ByLaw Amendments: Distributed in the August newsletter, to be posted on the website and ready to go to general membership at Annual Meeting.
 - d) Corner Records: General discussion and introduction of the issues of compliance at the Annual Meeting and initiate discussion/comment for 2017. Options include 1) leaving the statute as is; 2) revoking the statute; 3) modify either statute or Administrative Rules to broaden the means of compliance (through Records of Survey, plat documents, etc.) and then provide sanctions for non-compliance. The lack of compliance and enforcement of the current statute would make it difficult to prosecute. If non-compliance is widespread and there has been no enforcement of the statute then it is possible that changes should be implemented. Chapters to take up this discussion at the local levels in 2017 and this item will be set for discussion at 2018 convention. Thingelstad indicated that the SD Board of Technical Professions was discussing the possibility of hiring investigators for east and west river. Additional general discussion regarding compliance and enforcement.
9. New Business
- a) Turner Scholarship Application (student pursuing 4 year surveying degree): SDSPLS received first applicant (Aaron Boock) who is registered as a junior at Saint Cloud State University. ++Motion by Leetch to award \$4,000 to Aaron Boock - \$1,500 in January 2018; \$1,500 in January of 2019 with confirmation of registration; and \$1,000 with confirmation of graduation, 2nd by Dodds. Motion approved.
 - b) SDCL 11-3-20.2 – New Plat Vacating Prior Plats: Discussion of differences in east river and west river interpretation/implementation of this statute. In general east river counties appear to support a statement of vacation on the plat document while west river generally supports a "formerly" statement in the plat title. General discussion of why plats would need to be "vacated" rather than simply "re-platted" and what happens to general easements that may be granted

Continued on Page 6

Preserving the Profession

**By: Daniel L. Govero
President of Govero Land Services
in Imperial Missouri**

In recent years we have been faced with the fact that the number of licensed Professional Land Surveyors is declining rapidly. Then I read articles about the "one man" surveying companies, and how they are saving money, but who is going to save the profession? New technology has afforded us the opportunity to be "one man" companies, but most of us got involved in the business by working on a survey crew, deciding we liked it, and obtaining the education needed to become professional land surveyors.

In a recent article in a land surveying magazine, the land surveyor states that he began his career in surveying as a part time rodman, and held other titles including instrument man, party chief, project manager, survey department manager. Some of his experience must have come from working for various companies during his career and obtaining knowledge along the way.

Running a surveying & engineering company is not easy and not for everyone. I have been in business for 27 years and have trained and mentored many along the way. Employees are the biggest expense in a company, but by having employees you not only contribute to the economic impact of your community, you are also providing education and training in the profession and quite possibly planning the seed of future surveyors.

Education is not the only answer. Our profession requires mentoring and hands on training to learn how to find monuments, research, make decisions on what was found and compare the information with what is recorded and what is not recorded, but is used. Surveying is a profession that cannot totally be taught by education alone. We as surveyor's must incorporate new people in the profession, mentor them and help educate them if the profession is to survive!

Our Company has mentored many people over the years. One became licensed, took the challenge and joined the Missouri Society of Professional Land Surveyors, worked her way to become the first female president to lead our society and did an excellent job. She has been involved with many surveying projects since, including the monumenting of the Joseph C. Brown Memorial. We have had several other personnel get licensed, some work for other companies, some opened their own business in the area where they live. Needless to say, we have encouraged and mentored people to get involved and stay involved with the surveying profession.

This profession cannot be taught in school by itself. School will not tell us how to find a monument in the field, or if we are missing the original monument. School will also not educate us on how to resolve a boundary. It takes experience to learn how to compare recorded documents, with what we find in the field and the differences between possessions and recorded, and where is the correct line? This can only come from experience which as our profession ages is going away.

When the "one man" survey company quits, retires or goes out of business it's gone – no one to take his place. New technology is great, but let's help the future of the surveying profession by passing along our knowledge by hiring, training, and mentoring new people in the field.

As seen in Missouri Surveyor June 2016

BOD Meeting Minutes - continued from Page 5

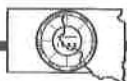
and whether or not those rights can be vacated or abandoned by a statement of vacation – rather than through a local process/procedure for release of interest. Leetch discusses the differences in H-Lot Plats (easements and dedications). Prior to 1986 deeds may not have been secured for H-Lots and they should be interpreted as a "road utility easement" upon whatever parcel(s) are affected. Following 1986 it was intended that fee interest would be secured for the H-Lots and that deeds and plats would be recorded. The State may also claims of ownership/rights to fences or other improvements (beyond the statutory 66') in instances where the acquisition was not necessarily documented through either deeds or plats.

- c) SDBOTP Computer Based Testing: Thingelstad indicates that NCEES will be converting the Fundamentals of Surveying exam to a computer based test. Other disciplines to follow. Finck mentioned that she had spoken with Steve Peters and it appears that the Landscape Architects are pushing for representation on the SDBOTP. Adding that additional member would allow the SDBOTP to add an additional engineer member to better reflect the number of engineering applicants and to assist with processing of licensure requests.
- d) Nominations for Officers: General discussion of candidates for Treasurer, President-Elect and NSPS Governor.

10. Next Meeting: Wednesday, January 11, 2017 9:00 am.

11. Meeting adjourned at 2:32 pm.

Respectfully Submitted by:
Executive Director Finck on behalf of
SDSPLS Secretary Eric Howard



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The Gentleman Fur Trapper

Jedediah Smith carried a rifle and a Bible.

When a fellow fur trapper died, Smith gave what was recorded as a "powerful prayr."

This powerful prayer is considered the first recorded public act of Christian worship by white men in South Dakota. It is commemorated on historical markers at The Bay at Grand River Casino, near Mobridge.

A mural painted by Charles Holloway depicts this act on the ceiling of the House chamber in the South Dakota Capitol. Titled "The Peace that Passes Understanding," it is the largest mural in the Capitol.

"It would be a mistake to view Smith as a rough-and-ready frontiersman in buckskin. He was a deeply religious person and cultured gentleman whom even the giants of the fur trade, Ashley, Fitzpatrick and William Sublette, respected and admired," according to "The Reader's Encyclopedia of the American West," edited by Howard R. Lamar.

According to information on the historical markers, Smith was "a Methodist by faith, he carried a Bible with him wherever he went ..."

Smith was born in Bainbridge, N.Y., in 1798 or 1799, depending on the source. In 1822, Smith accompanied Gen. William Ashley on Ashley's first fur trapping expedition from St. Louis to the upper Missouri River. A year later, Smith was with Ashley's second expedition up the Missouri River when it was attacked by the Arikara near the mouth of the Grand River in present-day South Dakota. The attack left more than a dozen fur trappers dead, and the rest fleeing for their lives.

John Gardner was one of those killed. In "Hugh Glass: Grizzly Survivor," James D. McLaird writes that before Gardner died, he asked Hugh Glass, another member of the party, to inform his parents of his sad fate. Glass did so, stating in the letter that "Mr Smith a young man of our company made a powerful prayr wh moved us all greatly and I am persuaded John died in peace."

To avoid the river route, Ashley later split the party into two groups and sent them overland to the mountains from Fort Kiowa, located near present-day Chamberlain.

Part of the party, including Glass, set out west for the Yellowstone River. Glass was mauled by a grizzly bear near the Grand River and left for dead. Glass' story has been told in books, poetry and movies.

Smith led the other party west toward the Black Hills. The group camped the first night along the White River. In his book "Journal of a Mountain Man," expedition member James Clyman described the land as treeless and wrote that it took two days of thirst and starvation to cross a large bend in the White River. When water was finally found, Clyman wrote that Smith "took Some water and rode about 2 miles back bringing up the exhausted men which he had buried in the sand."

They apparently entered the southern Black Hills through the Buffalo Gap, an opening in the Black Hills where buffalo entered and left the high country. Smith and his men are considered the first whites to enter the region, according to "The Roadside History of South Dakota" by Linda Hasselstrom.

In what some sources report was in the vicinity of Wind Cave and others in the Powder River Basin of Wyoming, a grizzly bear surprised and mauled Smith, breaking some of his ribs and laying his skull bare. Smith asked Clyman to sew up his wounds, which Clyman did.

The winter of 1823-24 was spent at the site of present-day Dubois, Wyo. Smith and his group learned from a group of friendly Crow Indians of an easy pass around the southern end of the Wind River Mountains. Although South Pass had been used before by whites, its discovery was forgotten and Smith and his party are credited for bringing South Pass to general knowledge.

Smith was well on his way to becoming one of the most famous of mountain men. In addition to rediscovering South Pass, Smith was the first American to enter California from the east and return from California using an overland route. He opened a coastal trade route from California to Fort Vancouver on the Columbia River. He filled in many of the missing pieces of western geography and demonstrated that there were feasible routes across the West to California and Oregon.

In 1830, Smith decided to leave the life of a mountain man. He sold his shares in his fur trading company and bought a house in Saint Louis. He was persuaded to take one more load of goods to Santa Fe, N.M., though, leaving in the spring of 1831. Smith was killed by Comanches while riding alone ahead of his party trying to find water along the Santa Fe Trail near the Cimarron River.

This moment in South Dakota history is provided by the South Dakota Historical Society Foundation, the nonprofit fundraising partner of the South Dakota State Historical Society at the Cultural Heritage Center in Pierre. Find us on the web at www.sdhsf.org. Contact us at info@sdhsf.org to submit a story idea.



Bridging the Gap

Filling the Ranks of Surveyors in the Next Decade

By: Frank Lenik, PLS

Lately, each time I get together with a group of surveyors, the discussion moves towards the shortage of available candidates for employment, the dearth of applicants for the land surveyor exam, and the aging of the population of existing surveyors. With a long face someone inevitably predicts the eventual death of our profession. We recognize the symptoms, but can't identify a cure. As Walt Kelly's Pogo would say, "we have met the enemy, and he is us."

The progression from a field crew composed of three people to two to one person over the last twenty years has reduced and in most cases eliminated our usual method of training employees. We can no longer depend on the old model of the master apprentice program. We lament about the quality of candidates but have little time to properly train our field crews. A qualified candidate often becomes one who is familiar with the type of instruments we own, or one who is adept enough to learn quickly and begin production.

Over the last ten years the list of surveyor candidates who were looking for work or who were under employed has evaporated. The larger firms have realized this and have gone after university co-op students and graduates in a big way. Those firms understand the need to fill their ranks with the best candidates they can find. It is good for the long term health of their company programs and they are not afraid to pay for these individuals. The result is that many of our university programs had their seniors placed before the final term last year.

This may be the beginning of a new age of land surveying education. The law of supply and demand should put pressure on universities, colleges and technical schools to satisfy our needs. The schools will need to create new surveying, survey engineering or geomatics engineering programs or support the existing ones, which will in time result in more qualified candidates for our profession and a better experience for the public overall.

The obvious dilemma will be how long it will take for this cycle to generate enough candidates to satisfy our attrition rate; and what should we do in the mean time? Land surveyors who want to be a part of the solution need to be working today with our institutions of higher learning and providing them with feedback on market conditions and man power needs. With a determined effort, we could effect change in the survey education system and increase the number of students coming out

of existing programs in a few years and hopefully start some new programs along the way.

Understanding that this will take time to come to fruition, we will need to institute some stop gap measures like the one proposed by a colleague of mine. He suggested if you "give me a person with a college degree, I can teach them to survey." Yes, it would be preferable to hire survey graduates today, but what do we do if they aren't available? Why not hire a graduate and shorten the learning curve for new employees.

Environmental studies and forestry majors have already committed themselves to working outdoors. One university in the Philadelphia region is currently teaching "Introduction to Environmental surveying" where their students are taught the use of GNSS hardware and software, digital levels, total stations and robotic instruments. They are learning about hydrography and UAV's and are applying these tools to ground water studies, flora and fauna studies, as well as lake, river and ocean hydrology and sedimentation studies.

If we are looking for potential employee candidates today we should explore all possible solutions. We need to identify them wherever they are and teach them about the rewarding futures in land surveying.

As seen in [TMBM – The NHLSA Newsletter](#), April 2016

DATES TO REMEMBER

2017 SDSPLS Annual Convention

January 11, 12 & 13, 2017

(Wednesday, Thursday & Friday)

Cedar Shore Resort – Chamberlain, SD

For reservations call: 1-888-697-6363

*"Stop wearing your wishbone
where your backbone
ought to be."*

- Elizabeth Gilbert-

Flu Season, Flu FACTS & Vaccines

By: **Joe BreauX, RPLS,**
TSPS Safety Committee Chair

According to the US Department of Health and Human Services, Center for Disease Control and Prevention (CDC), flu season is considered to be from October to May in the United States. Flu, or influenza, is a contagious disease caused by influenza viruses that are easily spread by coughing, sneezing or by close contact with others. Few, if any of us are totally isolated from others during this season so just about anyone can contract the flu and it often strikes suddenly. Symptoms may vary by the age of the person and they often include some or all of these **FACTS**: Fever, Aches, Chills, Tiredness and Sudden Onset. Other symptoms can also be sore throat, coughing, headaches and a runny or stuffy nose.

Flu by itself is bad enough, but it can also lead to other serious illnesses such as pneumonia and blood infections. It may cause diarrhea and even seizures in children. Flu can make certain medical conditions such as lung or heart disease even more serious.

Adults 65 and over, pregnant women, young children, infants and those with weakened immune systems or other health conditions are at even greater risk. Consulting your doctor is the best way to know if you are at greater risk than normal.

Every flu season thousands of people die from flu or complications resulting from or brought on by the flu. So how does one prevent or reduce their risk of getting the flu? A sure way to fight the Flu is to practice good personal hygiene. Cover your cough. Wash your hands. Stay home when sick. Get vaccinated. These steps can also help one prevent picking up or spreading other types of germs and diseases.

Another way to fight the flu is to get a flu "shot" or vaccine. One prediction is that flu vaccines have prevented 90,000 people from being hospitalized for treatment of the flu. I know that some people question vaccines or even refuse to take them. And there are some people who, due to medical reasons should not get a flu vaccine. I understand that and I respect those who choose not to take it. We're not going to debate all of that in this article. But, I am going to list some of the reasons and advantages and a few precautions that are often published about an annual flu vaccine. The CDC states that receiving a flu vaccine will prevent the flu, it will lessen the severity if you do contact

the flu, and it will keep one from spreading flu to family and friends.

Experts recommend taking one dose of flu vaccine every year, before or early in the flu season. This is for two reasons. First is that the predominant flu viruses change each year. A new flu vaccine is created each year by medical and research experts to protect against 3 to 4 viruses that are thought to be the most likely occurring viruses for that flu season. But even if the vaccine is not exactly the same viruses, it may still provide protection. Second is that by receiving the vaccine early, it will have time to take effect before the recipient is most likely to be exposed to flu viruses. Protection from the flu vaccine develops in about 14 days and it lasts through the entire flu season. Children who are 6 months through 8 years old may need two doses of the flu vaccine during flu season. Also, there is a newer type of flu vaccine that is available for children and older adults that is in the form of a nasal spray. Consult your child's doctor or other medical professional for details. Fortunately, flu vaccine is becoming more and more available to the public, at a very reasonable cost. Many medical insurance plans cover the cost, also. There are some medical clinics that offer a flu shot for no charge, and many pharmacies and walk-in medical clinics offer on-site vaccinations. A large number of these do not require an appointment.

Many people fear the flu vaccine because rumor has it that it can cause the flu. Flu vaccine does not contain live flu virus and it can't cause the flu. There are some illnesses that are flu like and the flu vaccine does not protect against these, nor does it offer full protection against other flu viruses. Some inactive flu vaccines contain a very small amount of mercury based preservative called thimerosal, though studies have not shown that this is harmful. But there are flu vaccines available that do not contain thimerosal. Another concern to some may be that most, though not all flu vaccines contain a small amount of egg protein.

As stated earlier, there are some who should not take the flu vaccine. Your medical professional or doctor is the best source for information on this aspect of flu vaccine. This is important to persons with severe, life threatening allergies, especially to one who has had an allergic reaction in the past to any part of a flu vaccine. Also, anyone with Guillain-Barre' Syndrome (GBS), a condition in which the immune system attacks the nerves, should not take the vaccine. Prior to administering the vaccine, the medical professional should ask questions of the potential recipient, but be sure to speak up if they don't ask. Always inform them of your conditions prior to receiving the vaccine.

There is some risk of having a reaction when taking any medication, including vaccines. But most people who take a flu shot have either no reaction or only experience a mild one that usually will go away on its' own. Common, minor reactions from a flut shot are soreness,



swelling, or redness at the injection site; sore, red or itchy eyes, cough, hoarseness; fever; headache; fatigue, aches or itching. If any of these symptoms develop after taking a flu shot and they linger for more than 1 or 2 days, consult your doctor or medical professional immediately.

Serious reaction and problem to a flu vaccine are not common but can occur. Problems would include fainting from having an injection. Some may do this with any injection, not just a flu vaccine. If dizziness occurs after an injection, simply remain seated for 10 minutes or so until the feeling goes away. Some people may develop severe shoulder pain and experience difficulty with arm movement. This is rare and will usually go away on its own. On the rare chance, about 1 in one million, that one does have an allergic reaction to a flu shot, this usually occurs within minutes to hours after the injection. Allergic reactions can include hives, swelling of the face and throat, difficulty breathing, accelerated heart beat, dizziness or weakness. If any of these symptoms occur, call 911 or get the person to a doctor for medical attention immediately.

Vaccines are continuously monitored by the CDC. More information is available at www.cdc.gov/vaccinesafety. To learn more about the flu vaccines or to ask questions, ask your healthcare provider. They should have information from the vaccine or other suitable information. Local or state health departments may also be a source of information. Or contact the Center for Disease Control and Prevention (CDC) by calling 1-800-232-4636 (1-800-CDC-INFO) or visit their website at www.cdc.gov/flu.

I hope you and yours are able to stay safe and healthy and avoid the flu this season. Good personal hygiene can aid greatly and so can a flu shot. Consider taking a flu shot this year and every other year. It is proven that the benefits of a flu vaccine far outweigh the risks.

As seen in The Texas Surveyor, November 2015

*“For to be free
is not merely to cast off one’s chains,
but to live in a way that
respects and enhances the freedom
of others.”*

Nelson Mandela

*Sometimes I need only to stand
wherever I am to be blessed.*

Mary Oliver

The following information is taken from meeting minutes of the **South Dakota Board of Technical Professions** complete meeting minutes can be found at: <http://dlr.sd.gov/btp>

July 15, 2016

Approve the following examinees for passing the Fundamentals of Surveying (FS) exam:

Andrew Wayne Klinger
Ross Daniel Menking

Approve the following examinee for passing the Principles of Surveying (PS) Exam:

Michael J. Noonan – LS 12913

Approve the following examinee to take the Fundamentals of Surveying (FS) Exam:

Eric Corner

Denial of the following examinees to take the Fundamentals of Surveying (FS) exam:

Joel Lee Bartscher
Dustin Rougeau

Approve the following Land Surveyor (LS) Comity Applications:

William Eric Baze (LS13011) TX
Robby Lawrence Berard (LS 13012) ND
Buckley Blew (LS13013) AR
Timothy Leigh Fish (LS 13014) NC
Carl John Gilbert (LS 13015) NE
Chris Dalton Hamilton (LS 13016) WY
Jonathan Franklin Murphy (LS 13017) NC

Denial of the following Land Survey (LS) by comity based on lack of qualifying experience.

Darren R. Wolterstorff – CO

That Job Went for What Price?

By: Ray Donnelly, PS

Do you ever wonder why there is such a huge difference in bids for the same surveying services? Going through the process of preparing a fair, comprehensive, and accurate proposal for a survey project can take up a considerable amount of time, especially if the scope of work is very detailed and the project is relatively large in size. It is very disappointing, to say the least, to get through the bidding process, only to find out that the project was awarded to another for a fee of 30% or more below your estimate. How could that be?

The survey project will be done by professional surveyors, right? Do they know their true costs? They will be performing the necessary research, field work, office work and will most likely have to include extras, won't they? Have the firms submitting proposals been realistic with their estimates of time that will be invested in the project?

The research component could include the acquisition and review of parcel descriptions, bench marks, plats, recorded surveys, right-of-way maps, government corners, utilities, etc., or review of construction plans.

The field work could be reconnaissance, establishing a control network, data collection, verification of property corners or witnesses, measuring pipe sizes and inverts, or construction staking depending on the nature of the job.

The office work aspect may be comprised of consultation or meetings, processing the field data, performing the CAD drafting, preparing notes and details, analysis of boundary evidence, developing coordinates for layout, creating cut-sheets, checking final drawings or new descriptions, phone calls, emails, meetings, etc.

Those extras may be the use of special equipment (GPS or scanning), atypical materials, or other expenses (mileage or reproduction) needed for completion of the project.

Figure 1 is a basic spreadsheet that could be used to prepare an estimate for a surveying or construction layout project.

The most important variable in preparing a realistic estimate is the Cost Rate for each employee (or team of employees) involved in the proposed project. Firms can be very large (10 survey crews) or very small (one person operations), and the Cost Rates they develop can differ significantly due to overhead and company

policy. However, there are some basic employee costs (hourly wages, social security taxes, state and federal unemployment taxes, and Workers Compensation Insurance) that are the responsibility of every firm with employees. And depending on your company's policy and benefits there can also be many OTHER costs (health & life insurance, dental or vision insurance, 401(k) match fees, professional dues, seminars education, overtime pay, etc.) that should also be factored into accurate and inclusive Cost Rates.

The Employee Cost Rate Worksheet (Figure 2) is an example of how to establish hourly charge rates for various personnel in a firm. Please note that this example includes one of the "other" costs referred to above (health & life insurance), but none of the others. The Total Adjusted Compensation is the addition of the Annual Base Wages with the Annual Costs for each employee.

The Employee Hourly Costs is derived by taking the Total Adjusted compensation (numerator) and dividing it by the employees' minimum annual billable hours (denominator). This denominator will vary by company, but generally starts with 2,080 hours (40 hours a week x 52 weeks), and is then reduced by paid holiday hours (48 hours, per company policy), and additionally reduced by paid vacation and sick leave (tiered per length of service at 80, 120 and 160 annual hours, (per company policy) in this example.

Overhead includes the costs of rent, vehicles (fuel & maintenance), equipment (purchase and repair), supplies, insurance (auto, general liability, professional liability), utilities, taxes, fees for attorneys & accountants, and other miscellaneous expenses unescapable when doing business. Overhead costs can easily amount of 135% - 150% of the sum of the Employee Hourly Costs.

Finally, there is profit to consider. A surveying firm should be budgeting a 10% - 15% margin when developing their Hourly Charge Rates. So, if one were to create a "multiplier" for developing their Hourly Charge Rates, take the Employee Hourly Cost (100%) and when adding Overhead (mean of 137.5%) and Profit (mean of 12.50%), the resulting Hourly Charge Rates would be approximately 2.5 times the Employee Hourly Cost.

In closing, one last comment – RAISE YOUR RATES!

As seen in [Michigan Surveyor](#), Spring/Summer 2016 and reprinted with permission.



Figure 1

ESTIMATE FOR JOB:		DATE:			
	BILLING I.D.	HOURS		RATE	TOTAL
RESEARCH	Principal		x	\$	= \$
	Survey Tech		x	\$	= \$
	CAD Tech		x	\$	= \$
	Clerical		x	\$	= \$
FIELD	Principal		x	\$	= \$
	Project Surveyor		x	\$	= \$
	Survey Tech		x	\$	= \$
	2 Person Survey Crew		x	\$	= \$
	3 Person Survey Crew		x	\$	= \$
OFFICE	Principal		x	\$	= \$
	Project Surveyor		x	\$	= \$
	Project Coordinator		x	\$	= \$
	CAD Tech		x	\$	= \$
	Clerical		x	\$	= \$
EXTRA	GPS (per day)		x	\$	= \$
	Total Station (per day)		x	\$	= \$
	Mileage (Per Mile)		x	\$	= \$
	Reproduction Cost		x	\$	= \$
TOTAL					\$

Figure 2

Employee Cost Rate Worksheet					Annual Costs					Total	Annual	Employee	Hourly		
#	Employee	Dept	Hire Date	Hourly Wage	Annual Base Wages ¹	Fica & Medicare Taxes ²	Unemp Tax Cost ³	Workers' Comp Cost ⁴	Health & Life Ins Cost	Other Costs	Adjusted Comp	Billable Hours	Hourly Cost	Multiplier	Charge Rate
1	John Doe, PS	Principal	04/01/08	\$50.00	\$104,000.00	\$7,956.00	\$562.60	\$332.80	\$6,100.00	\$0.00	\$118,951.40	1872	\$63.54	2.50	\$ 158.86
2	Jane Doe	Admn	05/05/14	\$15.00	\$31,200.00	\$2,386.80	\$562.60	\$99.84	\$3,700.00	\$0.00	\$37,949.24	1952	\$19.44	2.50	\$ 48.60
3	Play Doh	Cad	03/22/10	\$25.00	\$52,000.00	\$3,978.00	\$562.60	\$166.40	\$3,700.00	\$0.00	\$60,407.00	1872	\$32.27	2.50	\$ 80.67
4	Fi Do	Surv	02/15/10	\$25.00	\$52,000.00	\$3,978.00	\$562.60	\$504.40	\$4,800.00	\$0.00	\$61,845.00	1872	\$33.04	2.50	\$ 82.59
5	Dosee Do	Surv	12/15/11	\$20.00	\$41,600.00	\$3,182.40	\$562.60	\$403.52	\$4,800.00	\$0.00	\$50,548.52	1912	\$26.44	2.50	\$ 66.09
6	No Dough	Engineer	01/05/13	\$30.00	\$62,400.00	\$4,773.60	\$562.60	\$199.68	\$0.00	\$0.00	\$67,935.88	1912	\$35.53	2.50	\$ 88.83
6 Employees Totals					\$343,200.00	\$28,254.80	\$3,375.60	\$1,708.84	\$23,100.00	\$0.00	\$397,637.04		\$210.26		
Mean					\$52,000.00	\$3,978.00	\$562.60	\$275.60	\$4,250.00	\$0.00	\$60,184.10		\$31.82		

¹ 52 weeks x 40 hours/week = 2,080

² FICA: 6.25% + Medicare: 1.45% = 7.65%

³ FUTA: 0.6% of the first \$7,000 in wages + 1.0% - 10.0% of the first \$9,500 in wages

⁴ Field Staff: 0.97%, Office Staff: 0.32%, example rates only

Keyboard Shortcuts

Mastering just a few of these essential shortcuts can drastically increase both your productivity and the pace at which you work. Check out these important PC shortcuts that you absolutely need to know.

Delete with confidence – Backspace can be both your friend and your enemy. Deleting a word or two is no problem, but anything longer may turn a simple deletion into an arcade-style game of stop the cursor before it erases the whole paragraph.

Ctrl + backspace allows you to delete entire words at a time, or a whole sentence in no time.

S.O.S. – From time to time programs crash, lag, and freeze. You can avoid having to shut down your machine and call IT to recover documents with this three-button combo.

Ctrl + Shift+– Escape will open your computer's Task Manager, allowing you to terminate the problem program and continue uninterrupted.

Learn to Quick-Pick – Alternating between different programs? Don't let your mouse slow you down. This game changing shortcut allows you to seamlessly work

across all of your essential programs without having to lift your hands.

Holding **Alt + Tab** brings up the index of currently opened programs, and pressing Tab again allows you to cycle between them.

Dude, where's my desktop? When your work day is firing on all cylinders, you might have more than a few different windows open on your machine. Need easy access to a file that's currently on your desktop? Don't break your flow minimizing

Win + D is a shortcut for you to quickly clear your screen and grab what you need.

Oh, snap! – This is my favorite tool for doing research, writing, or any other time I'm simultaneously working in different windows.

WIN + left/right arrow keys – makes the currently selected window "snap" to one half of the screen or the other. Apply left and right positioning to two windows and enjoy a perfect split screen setup.

As seen in The UCLS Newsletter, June 2016

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The Land Surveyor's Guide to the Supreme Court of South Dakota Part 16 – 1918 to 1919

This article represents the sixteenth in a series of excerpts from a book prepared by South Dakota licensee Brian Portwood. The complete book is available for review in PDF form on the SDSPLS website and covers 120 years of historic South Dakota cases, answering fundamental land rights questions of potential interest to land surveyors, which are being presented in chronological order here in Backsights & Foresights.

What is the Re-Emergence Doctrine?

Allard v Curran (1918)

Returning to the topic of riparian boundaries and their impact on related land rights, here we encounter a pivotal case in which the Court opted to deliberately take a position, concerning the relationship between natural boundaries and section lines, that the Court fully realized was not in accord with the historic treatment of natural boundaries, establishing an important precedent that has remained intact in South Dakota since the time when this case was decided. The intent of the PLSS, by design, was to be subordinate to nature, with respect to boundaries of land, and there was never any intention that the artificial boundaries created by the original GLO surveys and plats should be interpreted as preventing natural boundaries, such as those formed by prominent bodies of water, from functioning to divide properties and ownership. This concept is clearly manifested in the rule that aliquot parts of sections which are invaded by significant bodies of water must be designated as being incomplete, when the land is platted, through the creation of riparian lots, in order to provide notice to all potential entrymen that the relevant portion of the section in question is incomplete in terms of extent and acreage, due to the presence of a bounding body of water. In addition, ownership of land lying in close proximity to water has always been historically understood to have distinct advantages and disadvantages, the primary benefit being convenient and uninterrupted access to the water, and the major drawback being the potential damage to the land or loss of the land from flooding, so the PLSS was devised with the intention of clearly identifying the presence of all substantial bodies of water, thereby giving entrymen of riparian lots notice that they were acquiring lands that were potentially in peril. From the case we are about to review however, we learn that the Court views respect for the controlling force of section lines as boundaries to be an even higher equitable

concern than respect for natural boundaries, and we observe here that much like it's highly flexible position on the determination of navigability for title purposes, the Court is not averse to unhesitatingly adopting positions on such boundary and title issues that are recognized as being outside the judicial mainstream. Its noteworthy that the position on the core issue of re-emergence taken here by the Court proved to be highly influential and persuasive to certain other states, when those states subsequently encountered cases involving comparable circumstances, having been cited and adopted by other PLSS states, including North Dakota. Two related riparian cases are worthy of being briefly noted at this juncture, in the 1917 case of *State v Deisch*, the Court held that a meandered lake, which covered about 1100 acres, but was only 1 to 6 feet deep, was a navigable lake, on the basis that it had been used by the public for boating, hunting and fishing for about 35 years, confirming the Court's strong inclination to allow any public use of water to indicate the presence of navigability. Then in 1925, in *Erickson v Horlyk*, a case precisely analogous to *Allard v Curran*, in which the land of *Horlyk* was fully eradicated by erosion, making the land of *Erickson* riparian, *Erickson* expressly set out to convince the Court that it's decision in *Allard's* favor was erroneous, to which the Court responded simply that "*Allard v Curran ... was based on equity and common sense, even if opposed to ancient precedent*", invoking the principle of *stare decisis* to silence *Erickson's* argument, and thereby foreclosing all possible future attempts to contest the validity of the concept of re-emergence in South Dakota.

Prior to 1878 - An unspecified township in Union County, through which the Missouri River ran, was surveyed and platted by the GLO. The river passed through Section 31 of this township, so an unspecified number of riparian government lots were platted in that section, but how much time elapsed before those lots were settled and patented is unknown. At this time, the north bank of the river was located within Section 31, an unspecified distance south of the north line of that section, and two of the platted lots were situated in the northwest quarter of that section, fronting upon the north side of the river.

1878 to 1888 - During this period, the river migrated northward, apparently by steadily eroding away it's northerly bank. By the end of this period, the north bank of the river was in Section 30, so the lots that had been platted in the north half of the northwest quarter of Section 31 had become completely submerged by the river, and the southwest quarter of Section 30 was also partially submerged under the river, although most of that quarter apparently remained dry land. Whether or not any of the

Continued on Page 16

land in either of these sections had yet been occupied or patented by this time is unknown, but presumably at least some of this land had been settled or put to some unspecified use, although there is no indication that any buildings were damaged or destroyed by the action of the river, so the area consumed by the river during this time period may well have consisted only of unimproved land.

1889 to 1899 - During the early part of this period, having evidently reached the full extent of its northerly movement, the river began to erode away its new south bank and started to move back in that direction. Apparently the pace of this southward movement was very similar to its former northward migration, so by the end of this period, it had evidently returned more or less to the location of its former channel, and was again flowing approximately in its platted location. At an unspecified time, Curran had acquired the southwest quarter of Section 30, which had been temporarily invaded by the river as described above, but which was once again dry land, lying an unspecified distance north of the river, by the end of this period. Whether Curran was living on her quarter throughout this period, or whether she arrived at some point in time during this period, is unknown, but she apparently had direct personal knowledge of the river movement that had taken place, so presumably she had been present on her land since an earlier date.

1900 - At this time, Union County evidently took notice of the fact that, by means of the river's action, the two platted lots in the north half of the northwest quarter of Section 31 had been exposed and restored more or less to their original size. These lots had apparently been patented into private ownership at an unspecified date, but the taxes on them had gone unpaid, so the county offered them for sale, and Allard acquired the two lots by means of tax deeds. The size of the lots acquired by Allard is unknown, and what use Allard made of them, if any, is also unknown, but these two lots extended northward from the north bank of the river to the south line of the southwest quarter of Section 30, owned by Curran, per the GLO plat, so this acquisition by Allard intervened between Curran's land and the river, completely blocking Curran's access to the river.

1901 to 1917 - There is no indication that anything of significance took place during the early part of this period, the river channel location evidently remained stable, and no conflict over the location of the boundary between Sections 30

& 31 ever arose. These two women apparently held their respective properties for several years without experiencing any controversy, although its quite possible that either one or both of them may have been absentee owners, who rarely if ever visited the area, and since there is no indication that Allard ever lived in the area, or ever set foot on her land in Section 31, its quite possible that Allard had never even visited or seen her property at all. At an unspecified time however, presumably toward the end of this period, Allard somehow learned that Curran was claiming that she actually owned the two lots that had been deeded to Allard in 1900, so Allard filed an action against Curran, seeking to quiet her tax title to those two lots.

Allard did not contest or dispute any of the factual history concerning either the land or the river, as outlined above, she simply argued that her lots had been legally platted, and they had never ceased to exist, despite being completely submerged under the river for a period of at least a few years, and Curran had never acquired the lots in controversy, so the tax deeds by which Allard had acquired the lots were perfectly valid, and Allard was therefore the legal owner of the two lots that had been deeded to her. Curran argued that because the river had fully and completely submerged the two platted lots at issue, they had legally ceased to exist, and once the river reached Curran's land, the southwest quarter of Section 30 became riparian in character, so any accretion that built up from that time forward, as the river moved back to the south, had become part of her quarter, rather than restoring the platted lots in Section 31, therefore the tax deeds to Allard had conveyed nothing to her, since the lots identified in those deeds no longer existed. The trial court agreed with Curran that the lots deeded to Allard had been legally extinguished, at whatever point in time they had been entirely consumed by the river, so Allard had acquired nothing, and Curran owned all of the land extending southward from her quarter section to the north bank of the river, in its current location, by virtue of accretion.

At first glance, the decision of the trial court may seem quite bizarre and perverse to some surveyors or others, whose thinking is structured to recognize the highly familiar configuration of the 36 sections comprising a typical township, and whose training leads them to visualize sections as rectangular in shape by definition, so the idea that one section could protrude far into an adjoining section might well seem ridiculous, especially to those who have worked only in locations such as the typical western city, where such variations are seldom seen. The PLSS is replete with such unusual and obscure variations however, and rivers are one major source of many such controversial and poorly understood situations and conundrums, due to their particular qualities, and the way in which they have been historically utilized and honored as boundaries. At the time of this case, many of the PLSS rules, particularly



those pertaining to riparian boundaries, which are fairly well developed and well understood today, were still relatively undeveloped and unknown, so its not surprising that this case proved to be problematic for the Court. There was no question of course that the Missouri River was navigable and the river bed was owned by South Dakota, but the specific issues introduced by the migration of a navigable river had not yet been addressed by the Court at this time, since the riparian boundary cases that had previously reached the Court had primarily involved lakes, so although the Court certainly understood basic concepts such as accretion and reliction, it was relatively unfamiliar with the implications of mobile boundaries in the PLSS context. The position of the GLO, and subsequently the BLM, has always been that section lines represent only artificial boundaries, which are therefore quite logically understood to be subordinate to natural boundaries such as navigable rivers, and it is for this reason, bowing to the supremacy of natural boundaries, that the PLSS calls for section lines to close upon such objects, in order to acknowledge their presence, rather than simply extending section lines right through them. The principle that natural boundary objects, such as navigable rivers, can and do control over artificial boundaries is a basic aspect of land rights law that has stood unquestioned for centuries, and in observance of that principle most western states have followed the same fundamental rule that has always applied at the federal level, which dictates that the artificial boundaries created as part of the PLSS do not operate to legally block or prevent the movement of natural boundaries. Under this principle, riparian government lots that are completely submerged do cease to exist, and conversely, riparian properties can also grow to an unlimited extent, by means of accretion, potentially extending far into adjoining sections, and even into adjoining townships, so in fact the position taken by the trial court in this case was fully justified, and was entirely in accord with both existing law and the spirit and intent of the PLSS. Nevertheless, the Court felt that the result of the application of this principle was fundamentally unjust, and therefore, despite it's knowledge that the rule of natural boundary control was the dominant rule nationwide, the Court consciously chose to decline to follow that rule, which stipulates that any land which has become riparian is entitled to remain riparian in character, electing instead to adopt a position precisely to the contrary for South Dakota:

"respondent claims that, when the river, by washing away appellant's land, had reached her land, her land then became riparian to the river, and that she became clothed with all the rights of riparian ownership ... and that she is the owner of all the land that was created in front of her land ... the rule applicable to such cases is stated as follows: If a particular tract was (originally) entirely cut off from a river and ... was reached by the river the latter tract would become riparian, as much as if it had been originally such ...

(because) all original lines submerged by the river have ceased to exist; the river is itself a natural boundary ... (and) having become riparian, it has all riparian rights ... This rule appears ... to have sprung from the fact that, when the riparian estate is destroyed and carried away, the boundary line between that and the adjacent estate is obliterated and lost, and that in the case of restoration by accretion or reliction, there is no way of identifying the original estate, and therefore it is deemed to have been entirely destroyed and lost. But no such reason exists in this case. The boundary line between the lands of appellant and respondent was a government section line, and of course can be re-established without difficulty ... there is no justification for the rule ... appellant's land had been restored by the action of the river, being capable of identification, it belonged to appellant and should be treated as though it had never been submerged at all."

The crucial step in the reasoning applied here by the Court, corresponding to it's rationale in allowing boundary disputes to fall within the scope of issues subject to resolution through adverse possession, was the fact that the nature of this conflict was characterized by the Court as a boundary issue, when in reality the matter was an ownership issue, and it was this misperception of the origin of the operative rule that left the Court unable to accept that rule, as it had been applied by most other states. Under the principle that navigable rivers form natural boundaries, which cannot be impeded in their movement by any artificial boundaries or privately owned properties, the ownership of the river bed constantly migrates along with the river, so the boundaries of the state owned bed are always located wherever the river is, at any given time, and accretion augments the properties on one side of the river, while erosion continually reduces the properties on the other side. Therefore, in this instance, when the river was in it's northerly position, title to the platted lots in question was extinguished, having become merged into the ownership of the river bed by the state, so the platted lots were not eliminated due to any factors related to uncertainty over the location of their boundaries, they ceased to exist because they were devoured by the river, leaving no part of those lots in private ownership, thereby rendering title to those lots extinct, although their boundaries were still theoretically ascertainable. Since the Court saw the rule in question as having it's foundation and basis in boundary law however, relating to location issues, rather than title law, relating to ownership issues, the Court quite naturally found no good reason to abandon the PLSS boundaries, once the river had receded, because the locations of the PLSS boundaries in the area were never questioned or challenged, and those boundaries could be placed on dry ground once again through proper survey procedures, as noted by the Court. So in fact it was the Court's decision to view this situation as a question concerning the

Continued on Page 18

potential extinction of boundaries, rather than the extinction of title to the lots in dispute, that caused the Court to reverse the ruling of the lower court, and to declare that the lots at issue did still exist, and title to them should be quieted in Allard. Even in view of the Court's treatment of this controversy as a boundary dispute, as opposed to a title conflict, it still could have followed the majority rule, simply by holding that the location of the section line in question had been shifted by the force and effect exerted upon it by the superior natural boundary comprised by the river, but as has been well noted herein, the Court has always been highly devoted to protecting the integrity and validity of all PLSS boundaries, as originally monumented and platted, and the Court demonstrated the depth of that devotion once again here. Another prominent factor influencing the position taken on this occasion by the Court was the distinction it saw fit to draw between lands that were originally platted as riparian, such as the lots that were in focus in this case, and lands that were not originally riparian in character, such as the plain quarter section owned by Curran. Since Curran's land was not originally intended to have direct access to the river, and she was obviously aware of that fact at the time she acquired it, having been obligated, like any other PLSS grantee, to take notice of where and how the land she was acquiring was situated on the relevant GLO township plat, the Court was inclined to see her legal interpretation of what had taken place, leading to a dramatic expansion of her land rights, that was of great benefit to her, as an unjustified windfall, which the Court found to be unpalatable. The topic of re-emergence of submerged lands, thus ruled upon here by the Court, remains among the most obscure and controversial land rights topics even today, but the stance of South Dakota on this issue, announced by the Court in this context, has withstood the test of time, and has been consistently adhered to by the Court ever since.

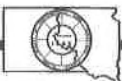
Can adverse possession have an impact on boundaries?

Sullivan v Groves (1919)

Continuing to trace the judicial progression of adverse possession, from its historic role, limited to the realm of title issues, into its modern form, we arrive here at a scenario involving a PLSS boundary dispute, and watch as the Court takes the opportunity presented by this case to sweep away the last potential obstacles to resolving boundary issues through the use of adverse possession, thereby cementing in place the role of adverse possession in judicial boundary resolution in South Dakota. While this controversy confronted the Court with yet another conflict resulting from a resurvey that had evidently been conducted without reference to any existing physical evidence of the original location of a particular range line, the Court's attitude toward such resurveys, which had been shaped by the several similar cases previously reviewed herein, is plainly displayed by

the Court's decision to allow adverse possession to settle the matter at hand here, thereby eliminating any need to analyze the validity of the resurvey. Once again, just as was noted in discussing the outcome of the Ingalls case of 1916, there was no genuine need to resolve this case on the basis of adverse possession, since the identical result could have been achieved just as effectively through the application of principles of boundary law, specifically the basic principle that original survey evidence controls, and the corresponding rule that any resurvey failing to properly utilize such evidence cannot control. This case demonstrates however, that by this point in time the more perceptive litigants and their attorneys, had recognized that the Court was simply more comfortable supporting and upholding the productive use of land on the basis of adverse possession than by weighing the value or legitimacy of PLSS retracement surveys, and quite understandably so, since the resurveys that had come to the attention of the Court had chronically failed to conform to PLSS rules governing retracement procedures. The Court had clearly grown very weary by this time, of reiterating that resurveys must honor all visible and testimonial evidence defining original GLO corners and lines, and had come to realize the futility of repeating that message, logically leading the Court to become increasingly inclined to embrace adverse possession as an appropriate alternative with which to silence boundary controversies stemming from resurveys performed in an independent manner, in derogation of the stability of established boundaries. In this case, which has been repeatedly cited by the Court in subsequent cases as a definitive cornerstone of modern adverse possession, as we will observe, the Court emphatically finalizes its approval and adoption of the rule that adverse possession is controlled primarily by objective physical evidence, and not by the subjective intent of the possessor. In addition, and of equal significance, here the Court also again confirms that the presence of a mistake concerning a boundary location has no preventative impact on the implementation of adverse possession, since all boundary disputes necessarily involve a mistake of some kind, by at least one party, if not both parties, thereby bringing boundary discrepancies within the scope of issues subject to resolution through adverse possession.

1883 - The northwest quarter of Section 18 in a certain township situated in Aurora County, which had been platted by the GLO in 1873, was patented to Rutter. There is no indication of how Rutter used this quarter section, but shortly after obtaining his patent he conveyed his land to Lennox. The northeast quarter of Section 18 was already owned by Helton, who had been farming it for an unspecified number of years. Helton and Lennox evidently became acquainted and they entered an agreement under which Helton would take possession of the quarter just acquired by Lennox and farm it along with his own quarter, as the tenant of Lennox. Preparing to put the



northwest quarter under cultivation, these two men attempted to determine where the township line that formed the west boundary of Section 18 was located on the ground. They were unable to locate any section corners or quarter corners on the township line, but the southwest quarter of Section 7, lying directly to the north of the land acquired by Lennox, had been fenced, so they decided to adopt the fence running along the west side of Section 7 as marking the apparent location of the township line. Helton then began cultivating and harvesting a crop from the northwest quarter, extending as far west as the line of that existing fence projected south. Whether or not any of the adjoining land in the township lying directly to the west of Section 18 had been settled is unknown, but no one raised any issue regarding either the location of the township line or Helton's use of the land, so he continued to farm the land, in the belief that the township line was located at the west edge of his field.

1886 - Having farmed the northwest quarter of Section 18 for 3 years without any concerns being raised by anyone about the limits of the area that he had put into use, Helton proceeded to build a fence around the area he had been using, and he continued to farm the entire enclosed area during each ensuing year.

1904 - Helton moved the fence that he had built 18 years earlier, running along the west side of the quarter owned by Lennox, relocating it 33 feet to the east, presumably to allow room for a section line road to be built on the township line, but whether or not any roadway was ever actually built in that location is unknown.

1905 to 1913 - During the early part of this period Helton continued to farm the entire fenced area representing the Lennox quarter, just as he had been doing for over 20 years, and there is no indication that any boundary issues arose. At an unspecified date, Lennox conveyed his quarter to Groves, and Helton continued to farm the land, as a tenant of Groves. At an unspecified date, a resurvey of the township line was conducted, and that line was thereby shown to be about 200 to 300 feet east of the fences that had long been thought to mark the township line. Who ordered the resurvey, for what purpose it was done, and whether or not any original survey evidence or other physical evidence relating to the township line location was found or utilized during the resurvey, are all unknown.

1914 - As a consequence of the resurvey of the township line, Sullivan, who had acquired the

northeast quarter of Section 13 in the adjoining township at an unspecified time, filed an action against Groves, seeking to have the resurveyed township line location declared to be correct, and to have Groves and Helton compelled to relinquish their possession and use of all of the land that Helton had been farming west of the township line, as it had been resurveyed.

Sullivan argued that the resurveyed township line was the true original township line, and that Groves could not successfully claim that she had acquired any land west of that line by means of adverse possession, because intent is fundamental to adverse possession, and neither Lennox, nor Helton, nor Groves had ever intended to claim any portion of Section 13, or any land west of Section 18. Sullivan further argued that because all of the use that had been made of the land in Section 13 by Helton had been based only on his mistaken idea regarding the location of the township line, none of that use could be properly characterized as adverse, therefore Sullivan's ownership of Section 13 still extended east all the way to the resurveyed township line, just as it always had. Groves conceded the matter of the actual township line location, and made no effort to produce any evidence to dispute or overcome the resurveyed location of that line, instead she argued simply that the use made by Helton of the entire area that he had fenced was adverse, and Sullivan was therefore barred from asserting any claim to any land lying east of the west fence line, by the applicable statutes of limitation, which defined the parameters of adverse possession. The trial court agreed with Sullivan that the possession of the easterly portion of Section 13 by Helton had all been based only on his own mistake concerning the true location of the township line, and his use of some of Sullivan's land in Section 13 had thus been entirely unintentional, so none of the possession in question had been adverse, and the resurveyed township line therefore fully controlled the boundary between the lands of Sullivan and Groves.

It was once again quite clear in this case, just as it had been in the Ingalls case 3 years earlier, which we have already reviewed, that the source of the controversy at hand was a disagreement or misunderstanding involving a particular boundary location, which had obviously resulted from an inadequate attempt to verify the location of a PLSS boundary line, as opposed to a title issue, presenting competing claims of ownership relating to the same tract of land. Very wisely however, Groves and her legal team took notice of the fact that the Court had indicated that it was inclined to disregard any partition that may once have existed between title and boundary issues, as demonstrated by it's ruling in the Ingalls case, so Groves took the position that the original boundary location did not matter, freely conceding that issue to Sullivan, because Groves correctly understood that she could far more readily prevail on the basis of adverse

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possession. Groves or her attorneys realized that the Court had become aware of the fact that direct physical evidence of original PLSS surveys had become very scarce, as half a century had passed since many of the GLO surveys had been completed, making original PLSS boundary locations very difficult to conclusively prove, and they may also have known that the Court viewed resurveys as highly suspect, since numerous previous cases had revealed that resurveys could not be trusted to honor original survey evidence. For these reasons, the Court had become open to resolving boundary disputes by exercising adverse possession, which had once been reserved for the resolution of title conflicts, and this case offered the Court an ideal opportunity to clarify and reinforce its stance on this particular use of adverse possession, by eliminating the final potential roadblocks to that concept, which were presented here by Sullivan. Maintaining that adverse possession could not be successfully completed in the absence of genuinely adverse intent, nor in the presence of a mistake, Sullivan pointed out that the intent of Helton, who was merely a tenant and not a land owner, was clearly innocent, rather than adverse, since he had testified to that effect, admitting that his notion regarding the township line location had been contradicted by the resurvey, although also stating that he still believed that the fences really were on the true original township line. The Court however, was fully prepared to dismiss the validity of each of the assertions made by Sullivan, holding first that the fact that Helton was only a tenant made no difference, because the actions of a tenant legally stand as actions of the land owner who he represents. In addition, recognizing that Helton had acted in good faith, the clearest and strongest evidence of Helton's real intent, the Court concluded, was his physical possession of the fenced area, because physical evidence is always the primary evidence of intent, and furthermore, it made no difference if Helton's opinion of the township line location was mistaken, because every boundary dispute originates in a mistake of one kind or another, so in the eyes of the Court, Helton's possession was entirely worthy of protection. Quoting in part from rulings in comparable cases that had taken place in Minnesota, New York and Wisconsin, supporting the application of adverse possession in the context of boundary resolution, along with the Lehman case of just the previous year, the Court explained that:

"possession (of Helton) being shown, the presumption of seisin during any part of such period in the true owner disappears, and there arises in place thereof the presumption that during all such period the possession had all the requisites of an adverse holding ... it is under this ... that the basis for the doctrine of acquiescence may be found ... adverse possession may be conclusively determined by the length of time during which there has been acquiescence in a disputed boundary ... Where one of two adjoining

owners takes and holds actual possession of land beyond the boundary ... though under a mistake as to the location of the boundary line, such possession ... is deemed to be adverse to the true owner and is a disseisin ... where a grantee in taking possession under his deed goes unintentionally and by mistake beyond his proper boundaries, and enters upon land ... supposing it to be his, this occupation is deemed to be adverse ... the only sensible, safe, and really equitable rule is to make the physical characteristics of possession ... the sole test of adverse possession ... defendants in the present case claim title to the land in question under the government patent ... The premises ... shall be deemed to have been held adversely."

Through this citation of several highly regarded judicial authorities on the proper use and application of adverse possession, and an exhaustive review of the meaning of the relevant statutory language, displaying what the Court saw as the intent of the language that had been selected in composing the statutes of limitation controlling adverse possession, the Court determined that neither the doctrine of subjective intent, nor the mistake doctrine, could prevent adverse possession from rendering boundaries of record moot. Under the Court's interpretation of the applicable statutes, none of them presented any obstacle to the objective of utilizing adverse possession as a tool with which to preserve original PLSS boundaries, that had been established through use and improvement of the land, which was presumptively made in accord with long obliterated original GLO monumentation. So intently focused was the Court, upon discarding resurveys that were based solely upon measurements of record, which disclosed a lack of respect for original PLSS monumentation and the development of the land that had been based on that original monumentation, that the Court was prepared to employ any legal or equitable device available to it, including adverse possession, to accomplish the goal of defending all PLSS boundaries long established in good faith, from disruption by resurveys not shown to have been based on original evidence. One especially important position adopted and expounded upon here by the Court related to the meaning of the term "seisin", an arcane word describing land as if it were an object capable of being held in the physical grasp of a given person or entity, and thus representing true ownership, which the Court quite wisely and correctly understood to be equivalent in meaning to the physical possession of land. When understood and accepted in this sense, the presumption of seisin always lies with the physical occupant of any land in dispute, rather than with the holder of a mere deed describing the land at issue, so the Court's very astute interpretation of this key term operated to negate any advantage that might otherwise have rested with Sullivan, as the owner of record, since she was partially out of possession, thereby making the physically defined boundary the only relevant boundary, under the perspective adopted here by the Court. Citing



the 1918 Lehman case, previously reviewed herein, the Court also once again took the critical step of linking acquiescence to adverse possession, reinforcing the proposition, first presented and discussed in that case, that mere silence on the part of an owner of record, such as Sullivan in this instance, can be recognized and treated by the Court as unjustifiable inaction on the part of the record owner, due to their failure to discern the presence of an adverse possession in progress, with potentially severe consequences for such negligence. Having set a very distinct course for the future adjudication of adverse possession, and having also effectively eliminated any potentially disruptive impact that might have resulted from the suspicious and inexplicably deviant resurvey, the Court reversed the decision of the lower court, and remanded the case with directions to award ownership of the entire fenced area to Groves, on the basis of adverse possession.

Two additional adverse possession cases, both also decided by the Court in 1919, contributed to the establishment of the parameters of modern adverse possession as well, although they were both set in the context of genuine title conflicts, and therefore contained no boundary components. In *Taylor v Edgerton*, addressed by the Court just one week after the Sullivan case, the Court expressed its view of the relevance of cotenancy to adverse possession. In that case, Edgerton died in 1887, leaving his land to just 3 of his 6 children, and in 1890 the 3 heirs who held title to the land conveyed it to Larson, who then occupied, cultivated and harvested the land until his death in 1910, at which time Taylor acquired the land at issue from Larson's estate. Subsequently, one of the heirs of Edgerton, who had not been among the 3 recipients of his father's land, decided to challenge Taylor's title to the land in question, forcing Taylor to file an action seeking to quiet his title against the Edgerton heir through adverse possession. The son of Edgerton maintained that Taylor could not legitimately or successfully claim to have adversely possessed the disputed tract, because he had always been a cotenant of the tract, along with both Larson and Taylor, although his existence was unknown to Taylor, and the heir had never previously exerted any claim to the land at issue. The Court fully upheld a lower court decision quieting title in Taylor, as he had requested, rejecting the claim set forth by the heir, despite acknowledging that a state of cotenancy had existed, as asserted by the heir. In so ruling, the Court adopted the position that cotenancy does not prevent the operation of adverse possession, holding that Edgerton's son, despite being a legal cotenant, was on full notice of the sole possession of the land in controversy by first Larson and then Taylor, verifying that the passage of the statutory period had foreclosed any rights that may once have been held by the heir to the tract at issue. Cotenancy was again a factor just a few months later in the case of *Theisen v Qualley*, which pitted a brother against a group represented by his sister, as the named defendant, consisting of some of his siblings, and some of their children as well. The mother of both litigants was a

widowed homesteader, who died prior to obtaining a patent to her homestead, so when she died her patent was issued to "the heirs or devisees of Theisen", although she had expressly willed her land to her son, the plaintiff, and he therefore maintained that he was entitled to sole ownership of the entire homestead through adverse possession, since he had been the sole occupant of the land at issue since 1905. Like Edgerton's son however, Qualley insisted that her brother could not rely upon adverse possession to deny her rights to a share of the homestead in question, because he and she had always been cotenants of the land, despite the fact that only her brother had used the land since their mother's passing. Deeming it unnecessary to address the correctness or the validity of the patent at issue, and acknowledging that the litigants were both cotenants and members of the same immediate family, the Court nonetheless again held that the possession and use of the land in dispute by Theisen was indeed adverse to the land rights of Qualley and all of her fellow defendants. The claim made by Theisen, the Court concluded, just like that of Taylor, was an exclusive and genuinely adverse claim, through which Theisen had effectively excluded all of his legal cotenants, even his own family members, from all of the land in controversy, confirming that neither cotenancy nor familial relations necessarily form a bar to the successful completion of adverse possession.

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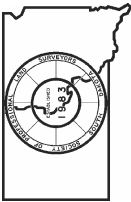
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