



# THE NEVADA TRAVERSE

**Journal of the Professional Land Surveyors of Nevada**

Institutional Affiliate National Society of Professional Surveyors • Member Western Federation of Professional Surveyors

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**Two Ways to  
Rock in the Desert!**



**2018 Great Basin  
College Team!...Page 35**



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## The Nevada Traverse

This publication is issued quarterly by the **Nevada Association of Land Surveyors (NALS)** and is published as a service to the Land Surveying profession of the state of Nevada. *The Nevada Traverse* is an open forum for all Surveyors, with an editorial policy predicated on the objective of NALS and Bylaws, Article II, which reads:

"The purpose of the association shall be to promote the common good and welfare of its members in their activities in the profession of Land Surveying; to promote the common good and welfare of the public in terms of professional land surveying activities; to promote and maintain the highest possible standards of professional ethics and practice; to promote public awareness and trust in Professional Land Surveyors and their work.

This organization, in its activities and in its membership, shall be non-partisan, non-sectarian, and non-discriminatory."

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## The Editor's Corner



by Carl C. de Baca, PLS

**T**hose of you who are old enough to recall driving across the hot desert night with nothing to keep you company but the tinny sound of AM radio, long before satellite radio and cell phones somehow muted the loneliness of Nevada's endless highways, join me if you will in moment of rumination for the loss of Art Bell. Early in my surveying career, I spent many hundreds of hours listening to eerie UFO reports and conspiracy theories on his Coast-to-Coast radio show. As Hunter Thompson once said, "When the going gets weird, the weird turn pro." Art Bell was indeed a pro and a true Nevada icon - lost in 2018. Also, very sadly and much closer to home, we lost three more giants of the profession here in Nevada since the last issue of the Traverse came out. A moment of reflection is in order for the passing of Jim Dorsey, Doug Hopkins and John Brooke: the highest caliber of teachers, mentors and friends.

CONTINUED ON NEXT PAGE ►

## Table Of Contents

The Editor's Corner .....	2
About the Cover .....	3
The President's Message .....	4
For Better or Worse: A Brief History of Water Conflicts in Early Nevada, Part III. ....	5
Surveyor's Week Proclamations .....	8-9
2018 NSPS National Student Competition .....	10
2018 Conference Wrap Up .....	13
2018 Conference Photo Gallery .....	14-17
Thanks to Vendors .....	18
The Development of a Mock Trial .....	19
Sustaining Members .....	23
Professional Listings.. ..	24
Lahontan Golf Tournament .....	25
BLM Survey Notification Letter.. ..	27
NALS BoD Meeting Minutes .....	28-29
Lahontan Chapter Report .....	31
John Roy Brooke Rest in Peace .....	32
Douglas William Hopkins Rest in Peace .....	33
James "Jim" Dorsey Rest in Peace .....	33
NSPS Report .....	34
2018 GBC Team! .....	35
WFPS Highlights .....	36
Torn from the Pages .....	37
The Future of Surveying .....	39
Advertiser Index .....	Inside Back Cover



We won't soon see their kind again.

In this issue we say goodbye to those three great Nevada surveyors, we finish Paul Pace's excellent three part masterpiece on the history of some early Nevada water conflicts and we take a look at this year's national student competition. Look for some 'Covefefe' on page 9. On Page 38 is an article literally torn from the pages of a 1962 Reno Gazette newspaper celebrating Engineer's Week. The photo in the article shows two stalwarts of Reno surveying, John Brooke and Bud Longfield doing their thing.

Speaking of driving across the desert, your editor found himself in the unusual situation this Spring, of having to drive from Reno to Elko then from Elko to Las Vegas to attend the Western Regional Survey Conference. When it was over, there was the small matter of a drive from Las Vegas back to Reno to look forward to. Nevada was thus circumnavigated (at reasonably high speeds) and in case there was any doubt, it can now be confirmed – Nevada is a very large state.

The recently remodeled and suitably huge, exotic (and expensive) Luxor Resort and Casino was the host hotel for our 2018 conference, a joint affair with the state societies of Utah, Arizona and Nevada, together with the Western Federation of Professional Surveyors. The National Society of Professional Surveyors held their spring meetings in conjunction with our conference and they in turn hosted the National Student Competition featuring terrific teams from twelve colleges and universities from across the country. This was truly a conference not to miss. If you were there you know what I am talking about and if you didn't make it, a pity – this was the biggest professional surveyor conference in a long, long time.

We're about to wrap up spring and go into a long, hot and probably very busy summer. Across the state, there are golf tournaments, baseball games and outreach activities looming ahead. We have plenty of opportunities to contribute to the good of the profession, including the 'GPS on Benchmarks' effort, working with schools and with scouts and supporting Great Basin College. The Traverse wants to report on all these activities so if you do something interesting, let us know – and send pictures!

Have a great summer!



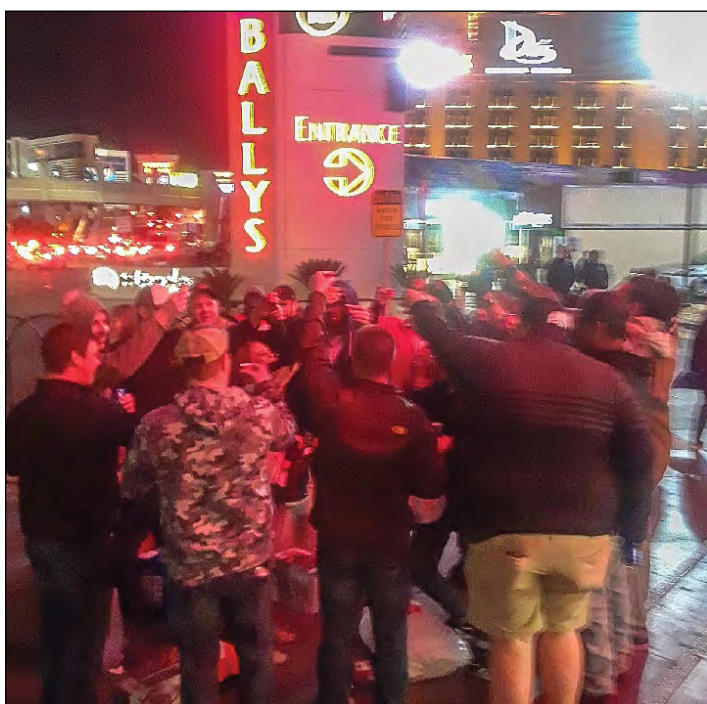
## About the Cover...



The All-Surveyors Band rocks the SNALS Picnic in April, 2018



The Great Basin College Land Surveying Geomatics Team rocks the 2018 National Student Competition



Here's to a great Student Competition - Thank God It's Over!

## Electronic BLM Manual The Manual of Surveying Instructions 2009

**Currently available on the  
BLM website:**

[http://www.blm.gov/pgdata/content/wo/en/  
prog/more/cadastralsurvey/  
2009\\_edition.html](http://www.blm.gov/pgdata/content/wo/en/prog/more/cadastralsurvey/2009_edition.html)

# The President's Message

by Jerry Juarez, PLS



**S**pring is here! It has been a busy year already and the remainder of the year promises to be full of activity. This year, NALS is focusing on revitalizing the Legislative Committee. With an active committee Chaired by Jason Higgins, we are seeing great progress. The 2022 Datum change will create a need for legislative action and our committee is hard at work determining the best course of action. Keep an eye out for updates from the Legislative Committee.

In addition to the Legislative Committee, our Board of Registration Committee is also working diligently to represent all Nevada Surveyors. So, shall we talk the Sunset Committee Review process? First off, if you don't know what a sunset review process is, it's a process in which legislators review licensing boards like ours to see if indeed these "types" of boards are needed. In effect, they have to justify their continued existence. The NALS Board of Directors provided a letter to support the continuance of NVBPELS which is crucial for the protection of the public.

Another big item this year is the NGS 'GPS on Benchmarks' program in which NGS has asked NALS to collect static data on certain NGS Benchmarks throughout Nevada. The purpose is to tighten up the next geoid model across the nation and most specifically in the wide-open states like ours. There is a flyer included in this issue of the Traverse that outlines how NGS wants us to collect, manage, and deliver the data to them to include in their final published values. We have information on our website and our NGS Liaison, Jon Wooten, is keeping track of the benchmarks as they are captured. This is an important endeavor and I encourage the membership to take part. Please take a look at the flyer and the website and hopefully make time to participate in this program. An improved geoid model benefits the entire surveying community in Nevada.

I shouldn't go any further without mentioning how the conference went this year. With over 800 attendees from across the nation, it was a very successful joint conference co-sponsored by the Utah Council of Land Surveyors (UCLS), the Arizona Professional Land Surveyors (APLS) and the Western Federation of Professional Surveyors (WestFed). With an amazing program and great exhibitors, the feedback has been overwhelmingly positive. It is hard to pick the best program, however, I've heard some very good things about the mock trial (thanks Jason Higgins) in particular. Special thank you

to Marty Crook for running our Scholarship Auction again this year and helping to raise over \$20,000 for surveying education. I can tell you, our wonderful student volunteers were excited! Thank you to Nancy Almanzan and Crissy Willson for their hard work to make this conference successful, as they do every year!

We continue to make improvements to the NALS website. I know that every survey firm is looking for new hires and the addition of the NALS Job Board to our website will help in your recruiting efforts! Check it out at [NvLandSurveyors.org](http://NvLandSurveyors.org)

Let's not forget to mention the Traverse. I don't know if you're aware, but every issue that comes out is full of so much information, stories and articles, not to mention the amazing photos! Editor Carl C. deBaca works very hard every issue to make sure you are getting one of the best publications in the country! If you see him, please make sure to tell him "thanks for the hard work." I know I appreciate all the things the Traverse gives to the land surveying professionals each and every issue.

⊗

## Welcome New Members!

Kenneth Burns  
Michael Butcher  
Kevin Campbell  
Brett Clarke  
James Darrough  
Michael Detwiler  
Carlos GilMendoza  
Mickey Hatt  
Kyle Killian  
Steven Michalowski  
Alta Peaslee  
Paul Roulias  
Nickolas Smith  
Terry Thomas





# For Better or Worse: A Brief History of Water Conflicts in Early Nevada, Part III

By: Paul S. Pace, PLS

*By 1915, with control of the dam at Lake Tahoe finally in their hands, hydrologists and engineers from the USRS moved to expand the Newlands Project. Engineering on upstream storage on the Truckee River went apace. With the completion of the diversion dam at Derby and the Lahontan Dam on the Carson River, the USRS hoped it had finally overcome the last of the obstacles hindering the project.*

With work on the Spanish Springs Reservoir moving forward, the USRS turned next to funding it. The U.S. Senate had an appropriation bill to help pay for the project pending. To be sure, farmers in the Hazen and Fernley districts of the Newlands Project would benefit from the new reservoir, but those served by Lahontan would receive no direct benefit. Despite this, the USRS calculated that it would have to assess all project farmers \$20 per acre, over and above the Senate appropriation money. The USRS hoped that the new reservoir would lure enough new farmers into the Newlands Project to reduce the assessments owed to the government. In any case, farmers in the Project were not consulted about the new reservoir, nor given a vote as to the assessments.

The Interior Department received criticism regarding the handling of the Spanish Springs Project by the newly re-named U.S. Bureau of Reclamation (USBOR), and for the means to fund the project. Hubert Work, President Coolidge's new Secretary of the Interior appointed a fact-finding committee to investigate this and other USBOR projects. After a visit to the Newlands Project, one member of the committee commented, "The Newlands Project, it seems to me, contains all the problems of modern irrigation and then some heretofore unencountered. The only things which appear to be lacking are soil, water and people." Secretary Work heard the criticism and concluded correctly that since the Bureau didn't bring the farmers into discussions of the project, it was likely most of the farmers did not want the assessments. Nevada Senator Key Pittman strongly endorsed the project and lobbied hard for it. But in June of 1924 the U.S. Senate killed the appropriation for the Spanish Springs Reservoir. There would not be another new reservoir project in the Truckee Basin until 1940.

In 1929 the Donner Lake Company completed an expansion of its existing dam at the outlet of Donner Lake. The higher dam captured 9500 acre-feet of storage. In 1943 the company sold the dam to jointly Sierra Pacific Power Company and TCID, together with the right to store water in Donner Lake for release into the Truckee River. This water was intended for power generation, domestic use in Reno and Sparks and irrigation on the Newlands project. Terms of the sale included prohibitions on lowering the lake level below the elevation of 5932 feet, in the interest of lakeshore property owners and recreationalists. Concerns regarding the legality of storing water in one state for use primarily in another were again put to rest.

## The Walker River

As with other hydrographic basins in Nevada, and the arid American west in general, the Walker River Basin saw ever-greater demands on its finite water resources. This is reflected in the surface elevation of Walker Lake, the river's terminus. It has fallen over 160 feet since 1882, representing a loss of millions of acre-feet in the lake's volume. The loss of so much water has, as at Pyramid Lake, resulted in a serious decline in water quality. In the 1960's the salinity of the lake increased so much that a variety of perch died out.

Early in the state's history, a viable farming industry grew up around the Walker River's east and west forks, which merge in Mason Valley. This activity steadily increased demand for the river's water. Water use on the West Walker River dates back to 1859, when farmers in Antelope Valley, California began diverting water for irrigation. Use increased when lands in the river's basin were further settled with the aid of the various Homestead Acts and the Desert Land Entry Act. But around 1900 it became clear that water use in the Walker Basin would exceed the resource. As the problem became more acute, recourse to the courts began in 1902.

The Walker River is an interstate stream, just as the Truckee and Carson Rivers are. Its headwaters rise in California and terminate in Nevada. It also flows through the Walker Lake Indian Reservation. This serves to complicate water allocation on a river with highly variable flows. Further complicating the issue was the loss of the Walker River Paiute Indian Tribe's water rights to Walker Lake. Reservation lands were ceded to the Tribe in November 1859 and included all of Walker Lake. However, under pressure from state and federal officials, together with local mining interests, in 1906 the Tribe ceded back to the federal government 268,000 of its original 318,810 acres of reservation lands, including all their rights to the land surrounding and underlying Walker Lake. Much of that land was eventually restored to the Tribe, but not any portion of Walker Lake or the lands adjoining the lake.

The Walker River Paiute Indian Reservation was established prior to the 1861 creation of the Nevada Territory. The Tribe argued that the water in the lake and its bed were part of the reservation, hence not subject to the State of Nevada, or for that matter, the federal government. The Tribe further argued that lands exposed by reliction still belong to the Tribe. The 1908 *Winters v. United States* decision solidified the Tribe's water right priority back-dated to 1859.

Beginning in 1910 the TRGECO began a vigorous examination of the West Walker River for hydroelectric development. Stone & Webster surveyors went to the field, as they had along the Truckee River, to retrace cadastral surveys, break sections into aliquot parts, locate riparian water rights, look for powerhouse and dam sites and begin engineering surveys for hydroelectric infrastructure. Potential sites included Chris Flat, Leavitt Meadows and Pickel Meadows.

In 1919 the Walker River Irrigation District was formed. The District built two reservoirs: one near Bridgeport, California and the other at Topaz Lake on the West Fork of the river, astride the Nevada-California state line. The District remains operational and in addition to the reservoirs, maintains extensive drainage systems in Smith and Mason Valleys.

In 1924 the United States brought a suit in the U.S. District Court for the District of Nevada

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in *United States v. Walker River Irrigation District* in order to determine the water rights of upstream users and in an attempt to protect the rights of Walker River Indian Reservation. The action resulted in the *Walker River Decree* in 1936. Most of the water rights recognized by the decree were already in place before enactment of Nevada's statutory water law in 1913, and California's in 1914. The decree further granted 26.25 CFS for the Walker Lake Indian Reservation during the irrigating season.

The Decree also delineated the riparian water rights of the TRGCo's successor, Sierra Pacific Power Company, on 334 acres along the river that was surveyed by Stone & Webster crews beginning in 1910. The company was granted use of the West Walker River, together with Silver Creek and Poor Creek, for hydroelectric generation. As late as 1964, the California Division of Water Resources recognized Sierra Pacific's hydroelectric potential on the West Walker, in particular at the Leavitt Meadows and Pickel Meadows sites. However, Sierra Pacific never constructed any hydroelectric plants on the West Walker River. Chris Flat and Leavitt Meadows are now the locations of USFS campgrounds, and Pickel Meadows is the home of the U.S. Marines Corps Training Center.

### **The Carson River**

The Carson River Basin covers approximately 3,966 square miles. 3,360 square miles of the basin are in Nevada while the remaining 606 square miles are in California. It lies south of the Truckee River Basin and north of the Walker River Basin. The river's east and west forks merge in Carson Valley and form the main stream of the river.

Exploitation of the Carson River began with pioneer ranching in the Carson Valley in the mid 1850's, with numerous ditches diverting water from the river. Chinese laborers were brought to the river in 1856, to build the Reese Ditch from the river to the mouth of Gold Canyon. It was used for working placer gold deposits in that area. Numerous ore processing mills quickly followed on the discovery of the Comstock Lode. The mills, located on the Carson River below Virginia City, severely impacted the water quality of the river with mercury and mine waste. And, just as the Truckee River was choked with sawdust and industrial waste, saw mills supplying the Comstock with timber polluted the Carson River in the same manner, as the mining boom signaled the dawn of an era of environmental degradation not seen before or since.

The Carson River too was not immune from controversies regarding its use. While the river supplied the means for the mills to process the Comstock's ores, and mill its lumber, it also irrigated ranches and farms in the area. When there wasn't water enough for all interests conflicts arose. The first lawsuits were filed in the 1870's. The courts struggled to establish some kind of water doctrine, principally riparian rights versus appropriative rights. In a landmark case, the Union Mill & Mining Company brought a Bill of Complaint against pioneer rancher Frederick Dangberg, and virtually every other agricultural water user in the Carson Valley. In all, over 100 defendants were named in the action at the U.S. Ninth Circuit Court. The mill company was owned by the powerful Bank of California and had acquired many of the other mills on the Carson River. The suit alleged, among other things, that Dangberg and the other ranchers had illegally diverted water from the Carson River in the summer of 1889, forcing the mills to cease operations. Years of litigation would ensue.

That same year of 1889, the Nevada Legislature enacted Chapter

113 of the Nevada Revised Statutes. This act was intended to regulate water rights, settle priority of those rights, provide for condemnation of land for reservoirs, record claims to water rights and appoint water commissioners. The following June, the act was declared unconstitutional by the District Court in Humboldt County, Nevada. The Nevada Supreme Court also challenged the law's validity.

### **The Humboldt River**

The Humboldt River is Nevada's only major river system that is wholly located within the state's boundaries, rising in the mountains near Wells and emptying into the Humboldt Sink. The roughly 300-mile long Humboldt drains an area of roughly 16,800 square miles and is, by most accounts, the second largest river in the Great Basin. The river's place in the history of western migration is well known, as is its importance in the development of ranching and farming in central Nevada.

Agricultural demands on the river system by the 1880's fostered conflict over water use and drove the debate over prior appropriation versus riparian water rights. The same issues that were faced on the Truckee, Carson and Walker River Basins also challenged the Humboldt.

All through the latter decades of the 19<sup>th</sup> Century, court battles rose over water rights in the Humboldt Basin, in drought years and in heavy winter years alike. Finally in 1903 the Nevada Legislature created the Office of the State Engineer, tasked with resolving water conflicts, protect existing water rights and fostering more efficient use of the state's limited water resources. Subsequent adjudications through the 1920's and 1930's determined that surface waters in the Humboldt River system were fully appropriated, defined irrigation usage, recognized the impact of mining on the river basin and the ephemeral nature of many of the Humboldt's tributaries.

In 1936 the U.S. Bureau of Reclamation completed the river's only principal dam on the Humboldt River at Rye Patch. Located 26 miles upstream from Lovelock, Rye Patch Reservoir remains a vital resource for the 30,000 acres of irrigated land in the area.

### **Epilog**

#### **Sunset on the Comstock Lode**

A large silver strike in Nevada around 1905 renewed interest in the states's ailing mining industry. Tonopah sprang to life, quickly followed by rich strikes in Goldfield, Manhattan, Beatty and a host of smaller camps. But while new mines were quickly developing, ore processing mills were a bit slower to follow. For a time, owners of the southern mines shipped their ores via the Carson & Colorado Railroad and the Virginia & Truckee Railroad to the Comstock for processing. Meanwhile the Comstock Pumping Association's dewatering continued, allowing the mining of low-grade ores. However, consolidation of the mining operations reduced the number of companies in the Association. It was a far cry from the early years, when there were as many as 400 separate mining companies in operation on the Lode, 150 of them publically traded.

While it never again approached the peak silver output of the 1870's, underground mining in the Lode continued until about 1920. Then the Comstock Pumping Association finally closed its doors for good. At that point the last of the pumping stopped and the mines again were flooded to the level of the Sutro Tunnel.

In 1920 the United Comstock

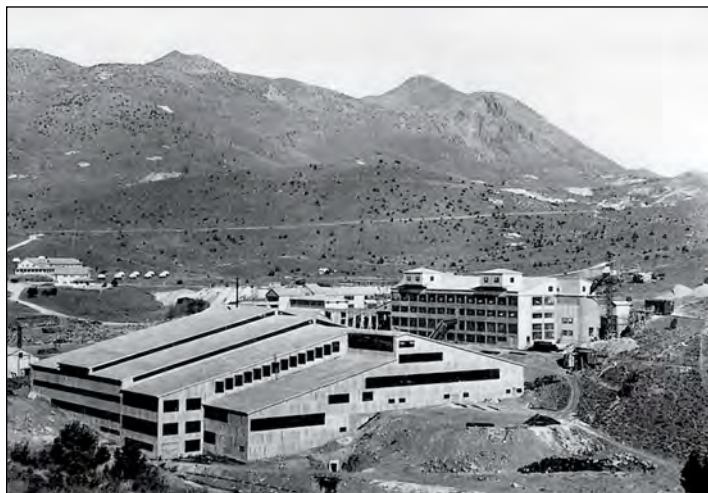
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Mines Company was organized, with backing from eastern capitalists, for one more try at the Comstock Lode. Banker and former miner George Wingfield and Roy Hardy, a graduate of the University of Nevada's Mackay School of Mines, were heavily involved in the project.

The firm constructed a large cyanide mill at American Flat, about a mile south of Gold Hill, for processing ore from the Comstock's South End properties. The plant treated 2000 tons of lower grade ores per day, making it the largest ore-processing mill in the world at that time. Two boarding houses, each accommodating 500 men, and fifty houses were constructed to house the miners and mill workers. A school, general store and amusement hall were also built for the workforce.

In March 1922 the firm had completed a 9585-foot adit from American Flat to the Knickerbocker Shaft and on to the Imperial Mine located literally under the streets of Gold Hill. Two electric locomotives hauled ore at the rate of 6500 tons per 24 hours. But in 1924 silver prices fell from \$1.00 per ounce to \$0.67. By 1926 the price fell to \$0.62. The ores brought for processing were of a lower quality than anticipated, and the operation lost money. The firm closed the doors in December of 1926.



The United Comstock Mines cyanide mill at American Flat in the 1920's.  
Western Nevada Historic Photo Collection

The Great Depression further dimmed hopes on the Lode. As the economic devastation spread over the country, the Comstock's most venerable institutions began to vanish, along with its people; the 1930 Census recorded only 667 people living in Storey County. The splendid Fourth Ward School, built in 1877 for a thousand students, held its final graduation in 1936. In 1938, after nearly 70 years of continuous operation, the Virginia & Truckee Railroad ended service to Virginia City. Service from Carson City to Reno and to Minden-Gardnerville continued into the 1950's, but by then the "Queen of the Shortlines" had sold much of her oldest and grandest motive power and rolling stock to the movie studios in Hollywood.

As bad as things were during the Depression, the final blows came during World War II. The War Department strongly encouraged Storey County to close down its brothels and cribs, in the interest of "public health", or in other words, to protect its military personnel. The War Production Board, in a move that did not bode well for the last of the miners on the Comstock, listed gold and silver mining as non-essential activities. The end came with Limitation Order L-208, issued in October of 1942. The Order mandated gold and silver mines to close their

operations within seven days. The purpose was to promote the mining of strategic metals such as copper, lead and tungsten, etc., for the war effort. By the time the Limitation Order was lifted in June of 1945, the damage was done. The miners and the working girls were long gone.

### A Century of Gain and Loss

The U.S. Circuit Court rendered a decision in the *Union Mill & Mining Company v. H. F. Dangberg, et al.* in May of 1897. The judgment clarified the principles of prior appropriation of water in Nevada, over riparian rights as in neighboring California, together with its beneficial and economical uses. The decision came long after the Union Mill and Mining Company had closed its doors.

Low water years in the 1920's and 1930's forced a review of the 1915 Floriston Rates. Negotiations between the now renamed U.S. Bureau of Reclamation and the principal downstream users resulted in the *Truckee River Agreement of 1935*. The Floriston Rates were renegotiated, as a function of the surface level of Lake Tahoe.

During those same terrible drought years, in particular 1924 and 1929, limited pumping of water from Lake Tahoe into the dry bed of the Truckee River was permitted. Downstream, it was rumored that the desperate farmers in the Truckee Meadows threatened to dynamite the lake's natural rim in order to let more water flow from the lake.

By 1906, commercial over-fishing had brought the Pyramid Lake fishery into serious decline. In 1914, the Nevada Fish and Game Commission approved a fish ladder at Derby Dam, to aid the spawning of the prized but dwindling Lahontan cutthroat trout. The twelve major dams above Derby also installed fish ladders, including dams owned by the TTRGECO, Floriston Pulp and Paper Company, Boca Ice and National Ice Companies and the Southern Pacific Railroad.

But by the 1920's the end of the cutthroat trout was in sight. The last notable spawning run in the Truckee River was in 1928. No spawning runs at all occurred after 1938. By the early 1940's the native strain of Pyramid Lake Lahontan cutthroat trout was considered extinct. Seemingly against the odds, efforts to revive the original cutthroat trout at Pyramid Lake from genetically identical cutthroats from Pilot Lake in eastern Nevada have been successful. In 2012 a 20-pound cutthroat was caught and 10-pounders of this native strain are routinely landed. There may yet be a happy ending for this largest of American trout at Pyramid Lake.

California established two fish hatcheries at Lake Tahoe in the 1880's. Nevertheless, the Lake's native stocks continue to decline from overfishing, disruption of spawning grounds, introduction of non-native species, pollution, dams and other obstructions in the stream systems. Commercial fishing was finally banned at Lake Tahoe in 1917.

The Newlands Project brought changes all throughout the Truckee River Basin, but probably the greatest were seen around Pyramid Lake. In 1913, President Woodrow Wilson signed an Executive Order declaring Anaho Island, near the lake's eastern shore, a national wildlife refuge. The waters diverted from the Truckee River for Newlands steadily lowered the lake level, posing the threat of a land bridge to the island. Such a bridge would have allowed predators to access to one of the country's few nesting colonies

CONTINUED ON PAGE 30 ►



**WHEREAS**, the honorable and historic profession of surveying has provided answers to questions of land boundary determination since the earliest days of civilization; and

**WHEREAS**, Surveyors were instrumental in creating property boundaries of the United States that has provided its citizens the enjoyment and privilege of property ownership; and

**WHEREAS**, it is the Professional Land Surveyor that is uniquely qualified to locate on the ground what are expressed in words in legal documents defining property boundaries; and

**WHEREAS**, Land Surveyors work with other dedicated professionals from other disciplines to provide the best possible solutions to modern day problems that serve the interests of the public; now

**NOW, THEREFORE, I, GENO R. MARTINI**, Mayor of the City of Sparks, Nevada, do hereby proclaim March 18 – 24, 2018 as:

#### "PROFESSIONAL LAND SURVEYOR'S WEEK"

in the City of Sparks and urge all citizens to recognize that surveyors, and their respective professional societies, are encouraged to promote a better understanding of the profession among members of the public.

**IN WITNESS WHEREOF**, I have hereunto set my hand and caused the Seal of the City of Sparks, Nevada to be affixed this 20<sup>th</sup> day of March 2018.

*Geno R. Martini*

GENO R. MARTINI, Mayor  
ATTEST:

*Teresa Gardner*  
TERESA GARDNER, City Clerk



## Office of The Mayor City of Reno, Nevada Proclamation

**WHEREAS**, the honorable and historic profession of surveying was instrumental in the formation of the layout of properties and land boundary determination since the earliest days of civilization from the "rope stretchers" of ancient Egypt, to the Roman Empire, and

**WHEREAS**, now in modern society, surveyors continue to provide location and layout of roads, buildings, and other construction projects, and

**WHEREAS**, early government leaders set the standard for diligence, service and ethics which still guides the efforts of the modern surveyor, and

**WHEREAS**, it is the Professional Land Surveyor that is uniquely qualified to locate on the ground what are expressed in words in the legal documents that define property boundaries; an integral part of construction projects from the beginning to the very end, and

**WHEREAS**, Professional Surveyors obtain their expertise through a combination of education and experience in the classroom, the field, and in the office and continue to work with other dedicated professionals from other disciplines to provide the best possible solutions to modern day problems that serve the interests of the public.

**NOW THEREFORE, I, Hillary L. Schieve**, Mayor of the City of Reno, Nevada, do hereby proclaim:

March 16-24, 2018, as

## PROFESSIONAL LAND SURVEYORS WEEK

In and for the City of Reno, and encourage all of our citizens to join in recognizing the contributions of Land Surveyors to our community,

**IN WITNESS WHEREOF**, I have set my hand and caused the Seal of the city of Reno, Nevada, to be affixed this sixteenth day of March, 2018.

*Hillary L. Schieve*  
Hillary L. Schieve, Mayor  
City of Reno

ATTEST:

*Ashley D. Turney*  
Ashley D. Turney, City Clerk  
City of Reno



# CLARK COUNTY BOARD OF COMMISSIONERS AGENDA ITEM

**Petitioner:** Denis Cederburg, Director of Public Works

#### Recommendation:

That the Board of County Commissioners ratify the County Manager's appointment of Dustin Crowther to the position of Acting County Surveyor for the County of Clark, State of Nevada, effective March 12, 2018. (For possible action)

#### FISCAL IMPACT:

Fund #: N/A	Fund Name: N/A
Fund Center: N/A	Funded Pgm/Grant: N/A
Description: N/A	Amount: N/A
Added Comments: N/A	

#### BACKGROUND:

Clark County Surveyor James L. Marlett, Jr. retired effective March 9, 2018. Dustin Crowther, Deputy County Surveyor, is recommended to be Acting County Surveyor until such time as a permanent county surveyor is appointed.

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WASHINGTON

March 19, 2018

I send greetings to those celebrating National Surveyors Week.

Across America, professional surveyors fulfill an important role in the growth of our economy, the development of our infrastructure, and the daily functions of life. As someone who spent a career working with many highly trained and dedicated surveyors in the construction industry, I have great respect for the crucial work they do each and every day.

This week, our Nation honors the contributions and accomplishments of professional surveyors throughout American history, and we thank these hardworking men and women for their vision and dedication to the future of American greatness.

Melania joins me in sending our best wishes for a memorable week.

A large, bold, handwritten signature in black ink, which appears to be "Donald Trump", is positioned at the bottom of the page.

# 2018 NSPS National Student Competition

The 2018 National Society of Professional Surveyors' National Student Competition took place in conjunction with the NSPS spring meetings as part of the Western Regional Survey Conference in Las Vegas, Nevada at the Luxor Hotel and Casino. The conference, a joint affair between NALS, UCLS APLS and WFPS took place over the week of February 18 thru the 24th, with the field exercise portion of the Student Competition on Sunday February 18 being the first activity. This year's group of competitors included the Northeast Wisconsin Technical College, Idaho State University, Utah Valley University, California State University – Fresno, East Tennessee State University, Texas A&M University Corpus Christi, Northern Illinois University, University of Akron, University of New Mexico, Oregon Institute of Technology, University of Puerto Rico at Mayaguez, and Great Basin College.

The night before the field exercise, the teams met to find out the nature of the competition this year. It has been several years since this competition had a legitimate field component and it was nice to see the spirit of head-to-head competition back in the contest. The precise details of the competition, and what tools would be available to the students has been a closely guarded secret. The predetermined theme was that the competition would be similar to an 'Engineers Without Borders' mission, so the teams were prepared to travel light and work with less-than-optimal equipment. As competition coordinator Rich Vannozzi revealed the exact nature of the competition, it turned out the teams would only be able to utilize steel tapes, and auto-levels plus accessories like rods and tripods, and a compass. They would be taken to a vacant location on BLM land just beyond the west edge of the city and assigned a site. *[Thanks to Paul Burn of GCW Engineering for finding a suitable location and securing permission from the BLM to hold the event!]* Each site was a one acre square and the center point was marked on the ground with a hub and lath and a particular predetermined orientation, hence the need for a compass. The teams must establish the boundary of their site, square it up, record the information in field notes, then lay out a grid and perform a topographic survey, including both grid points and the random points associated with the terrain features. Every site had at least one wash running through it, some had more than one. The teams were told to meet at the destination point on Sunday morning at 7 am. They would have until 5 pm to complete their survey and clean up their site. Monday would be spent processing and adjusting their data, making their explanations and defenses, and preparing their topographic and boundary plats. On Tuesday they were scheduled make 15 minute presentations to a panel of judges and an audience.

## Field Competition

Okay, the day is here. The teams all meet up in various places throughout the Luxor and then drive to a predetermined location near the event site. In a way, this is kind of a preliminary test. Can the teams navigate to the jobsite on their own? Yes? Good. They've all arrived at the spot, which is literally the place where the pavement ends and the desert begins, parked their cars, trucks and vans, and are milling around waiting for competition organizer Vannozzi to give the final instructions and assign each team a site.



12 teams comprised of over 60 enthusiastic students plus advisors and a couple journalists assemble in a big circle while Rich gives out the marching orders. The teams are going to drive down this gravel road about a half mile, park their vehicles in an orderly fashion and be led to their individual jobsite. The spots for each team are chosen randomly. Some are more challenging than others. Luck of the draw is the order of the day. It's time to channel their inner MacGyvers.



8 AM



The teams have been led to their sites. There are enough roads in the area that team vehicles can be parked somewhere near their work zone. As they evaluate the challenges of their particular patch of desert, they are mostly huddling and strategizing. Some have broken out their compasses and are busy chaining out an initial baseline. The whole area is populated with various desert vegetation: Joshua Trees, big and small, (Joshua shrubs?), yucca plants, mesquite, two or three types of cactus. Everything here has stickers or stingers. The ground looks like uncounted millions of concrete trucks were rinsed out on site, but no,

that is naturally occurring, concreted material.

The term 'topsoil' is patently not applicable here. Driving up the road to get here was like driving up some European stairway from a Bourne or Mission Impossible chase scene. Every tire on every vehicle took palpable abuse on the way here. One must have pity for the rental cars. Now

CONTINUED ON NEXT PAGE ►



these students have to pound nails and stakes into this same surface, which is harder than the back of my head.

### 9:30 AM

The sun is rising in the morning sky. Steel tapes are being stretched, orders are being yelled, and a harbinger of the day to come makes its entrance – the wind. Many cultures have words for winds like these, kamikaze, scirocco, zephyr, etc. Well this wind deserves nomenclature that I can't get away with using in this article, so let's just call them a typical Nevada breeze. From now until the end of the day, the baseline wind was a steady 30+ mph with gusts of nearly double and of course, it increased as the day went on. Tapes are whipping up and down and I can only imagine the difficulties faced while trying to peg the levels. Some of the teams come from places with rolling terrain and loamy soil. We aren't there. Kneel down to stretch a tape or pound in a stake and the ground will sharply poke your kneecap. Tangle your chain up in a bush and you will be stabbed. Nevertheless, a look of focus and determination is visible on every face. They are taking this challenge and running with it.

### 11 AM

Joe Paiva of GeoLearn and his camera man are moving from team to team, capturing action video. NSPS Education Chair Steve Gould and Mr. Vannozzi are also making their rounds, keeping an eye on the activities, without interfering in the work. They are also in part ensuring that no faculty advisors are actually "advising" their teams.

If the students would have had time to look around and take in the scenery, they would have seen the beautiful dark, reddish mountains on the west side of the valley. They would have seen the rolling hills fading into the southerly distance, they would have spotted well-used paths criss-crossing the site of either some profoundly small horses, or much more likely, burros. I looked around all day in vain hoping to catch site of a burro, but it was not to be.



I think I spotted a team laying out their grids with a rag tapes. The wind makes that somewhat disadvantageous. I see another team has drawn a site that is divided by a wash that is more like dry creek bed and the easterly side extends up the side of a hill. The difference in elevation across their site is enough that they have to break chain to do their measurements. Ouch! They don't look upset about their fortune as they proceed with their work. I get the sense from every team out here that there are no problems, only opportunities.

The sun is high in the sky but it's the kind of day where if you are wearing a hoodie, (and you'd better be, or at least sporting

the equivalent), you are not likely to take it off. Let's just say the wind is fairly unpleasant on bare skin. As I wander the site, I finally find a spot where I can sit in the lee of a Joshua tree while keeping in the sun and I am instantly more comfortable. It's glorious, but there is a problem, I can't see any of the teams. So I move on. It was good while it lasted.

### Afternoon

It was up to the individual teams whether or not to take a lunch break. Most didn't. They ate while they worked and the sites were gradually sliced up with gridded out stake lines. Philly rods were up everywhere. Holding up more than two sections looked positively difficult. Events proceeded – some with more fanfare and urgency as the end of the day drew nearer. The sun continued to beat down. A lot of right triangles were being computed and laid out on the ground. The wind swallowed up most of the yelling, but trust me, there was yelling.



Vannozzi and Gould enjoy the desert

As near as I could tell, the first team to call it a day finished at about 3:30. They milled around for a good half hour after then cleaned up their site, stowed their gear and pulled away to head back to the Luxor. Around the time the first team drove away, several others wrapped up, policed their sites and departed. Pretty soon there was only one team left and they wrapped up and the day was over. Every single team is to be commended for their diligence in leaving no trace. The BLM will not second-guess their decision to allow the teams to use the public land, and that is a good thing.

### Monday – Office Day

The student teams got together in a large conference room at a collection of round tables to work on their data reduction, adjustment reasoning, map-making and presentation development. It was a very busy day as each team divvied up the assignments and went to work. Each round table averaged four laptops. Autocad and Carlson software packages were being deployed with grim determination. PowerPoint slides were being developed and vigorous debates and discussions were taking place at all 12 tables. A good eight hours was put in by every team and at 5:00 they turned in their maps as PDF files on flash drives to Coordinator Vannozzi, who gave them all to Paul Burn to take back to GCW and plot. By this time, the end of the second day of hard work, the teams looked to be pretty frazzled.

### Tuesday – Presentation to the Judges

CONTINUED ON NEXT PAGE ►





All 12 teams with their Advisors on Wednesday during the NSPS BOD meeting

The teams showed up early and assembled in the room where the day before they had been busily concentrating, computing, collating and concocting. The round tables that had previously filled the room were gone, in favor of rows of seats and an upraised platform for the team of the moment. GeoLearn had cameras set up, the judges sat at a table on one side of the room facing the platform, the officials sat at a similar table on the other side of the room creating a sense of symmetry to the affair. Around the back of the room were bulletin boards holding 24"x36" map copies that each team had prepared the day before, pinned up for display and judging. All were of excellent quality and detail.

Each team's turn at the podium was determined randomly, as their survey sites had been on Sunday. The first team up was a little nervous, as you can imagine, or maybe you can't. Contemplate if you will: there are some fifty-plus students from eleven other teams sitting together in groups in the audience, sizing you up and planning to learn from your mistakes in presentation. Once the questions from the judges and audience start, you are giving the other teams an advantage. You are going in cold and they will be able to come in hot because of you. In addition to the students, waiting to pick you apart like hyenas spying a lone gazelle on the Serengeti, there are your advisors and all of the other teams' advisors, many surveyors and oh yeah, you are on camera and will be on YouTube soon. Some on your team are more naturally gifted as public orators than others, but the rules state that all team members must have a go at the microphone and work out their piece of the presentation. So don't sweat it.

Well, I made it sound much worse than it turned out to be because every team had two or three fantastic speakers, all the teams were comfortable with their subject matter and most fielded their

questions with aplomb and often with great humor. Though the methods of survey described by each team tended to be similar, each had their own take on what was important and what was trivial, where error came from and how error was to be dealt with. It was a tremendous display of the state of advanced education across the country, and that state is very high indeed. You would be happy to hire any member of every team in this competition and I conclude that the future of Surveying is in good hands.



### Wednesday – Results of the Judging

Alas, only one team can be declared the 'winner' (actually two since there was '4 year' and a '2 year' category), and a couple more can be runners up but from where I sat, every team was a winner and I feel lucky to have witnessed this particular competition. I want to personally congratulate every student from every team for taking on this tough assignment. The first place team in the two-year degree category was Northeast Wisconsin Technical College. In the bachelor degree category, the second runner-up was Utah Valley University, the first runner-up was Texas A&M Corpus Christi, and the winner of the 2018 National Student Competition was Oregon Institute of Technology. Congratulations O.I.T.!

### Conclusion

No doubt about it, these student teams are the future of this profession, not to mention the future of our various state and national organizations. As full-time students they carry a pretty good burden already. Many of them work part-time in the profession while they attend school as well. Taking the time out of their busy academic careers to prepare for and attend these competitions is a tremendous demonstration of commitment and



Winners! Oregon Institute of Technology





effort for which they should be universally recognized.

If you as a state society can't make up your mind whether paying for your school team to travel to this national event each year is a worthwhile expenditure, please stop pondering it. There is every bit as much 'bang for your buck' in spending education funds on this as there is in distributing an equivalent amount of money on scholarships. We might be in Las Vegas (this year) but there is no gambling involved. Every one of these students is a proven winner.

*We should all thank the Bureau of Land Management for allowing us to use the land for our competition. The BLM receives a lot of negative publicity in their attempt at even-handed management of the public lands, and that is a shame. Approached by NSPS (see below) seeking permission to hold this competition, they readily (and I hear enthusiastically) acceded.*

*Not enough can be said about the work that Paul Burn did running down a location for this event – one that could handle at least twelve teams with plenty of space between them, working out the details and securing permission from the BLM, arranging to have a Blue room placed on the site, and having his firm, GCW Engineering do some preliminary survey work to aid in planning the event, such as setting the starting point for each of the teams, and plotting all of the teams' plats. Thanks Paul!*

*An extra-special shout-out to the students and advisors from the University of Puerto Rico at Mayaguez! They prepared for this competition in the aftermath of Hurricane Maria, a devastating event that left most of the island without electricity for months. I was told that some of the students had only regained access to the electricity (that most of us take for granted) days before trekking across the country to compete in Las Vegas. Their super-human efforts should not go unrecognized!*

*Time to start planning for the 2019 competition! -CRC*

⊗

## NALS Historic Committee Search

The Historic Committee is searching for pictures and narratives on past presidents and prominent contributive members. The presidents are known, but a list of contributive members needs to be developed. This year we hope to collect an overview of recollections, contributions and photos for both categories for future use. Respondents need not worry that two or more reply; information and photos received will be compiled by the committee.

Please respond to:  
**NalsHistory@GMail.com**

**Thank you!**



# 2018 CONFERENCE WRAP UP

*by Carl C. de Baca*

On February 21<sup>st</sup> thru the 24<sup>th</sup>, the Nevada Association of Land Surveyors (NALS) had the honor of hosting the 2018 Western Regional Survey Conference, a joint affair between NALS, The Arizona Professional Land Surveyors (APLS), the Utah Council of Land Surveyors (UCLS) and the Western Federation of Professional Surveyors (WFPS) at the fabulous Luxor Hotel and Casino in Las Vegas. In addition to those nearly 700 attendees, the National Society of Professional Surveyors (NSPS) held their spring meetings there and hosted the national student competition (*see article elsewhere in this edition*), which brought teams and advisors from twelve colleges and universities across the country.

With aforementioned attendees, plus vendors, NSPS directors and committee people, students and faculty, there were between 800 and 900 surveying-related people fitting around the Luxor. It harkened back to the old days when the ACSM/NSPS conference came around and you would get lost in a sea of surveyors.

Lecturers included Don Wilson, Jan Van Sickle, Kris Kline, Gene Kooper, Daniel Katz, Landon Blake and many more. On the final day, a panel that included an attorney, a title officer and surveyor Paul Burn of GCW oversaw a Q&A session on ALTA surveys to a packed room full of surveyors eager to get their pet problems discussed. The pre-conference workshops included a CFEDS continuing education program, an NGS workshop and an all-day mock trial put on by Jason Higgins and Curt Ledford, Esq. (*see article elsewhere in this edition*).

The workshops were uniformly great, the luncheons were terrific and the scholarship auction with Lightnin' was exciting and hilarious, as usual. The Luxor was a first-rate hotel and the whole conference went off without a hitch. Crissy Willson of AMS, our executive director deserves major-league kudos for this event, as do the various conference chairs and coordinators and the student volunteers. If you missed this one, I don't know what to say. I drove all the way around the state of Nevada (*see editor's corner...*) to attend this thing and would do it again in a heartbeat. Your loss, I guess. -CRC

⊗

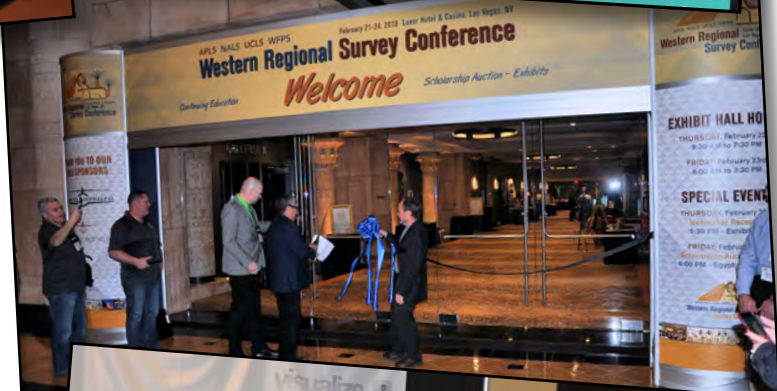
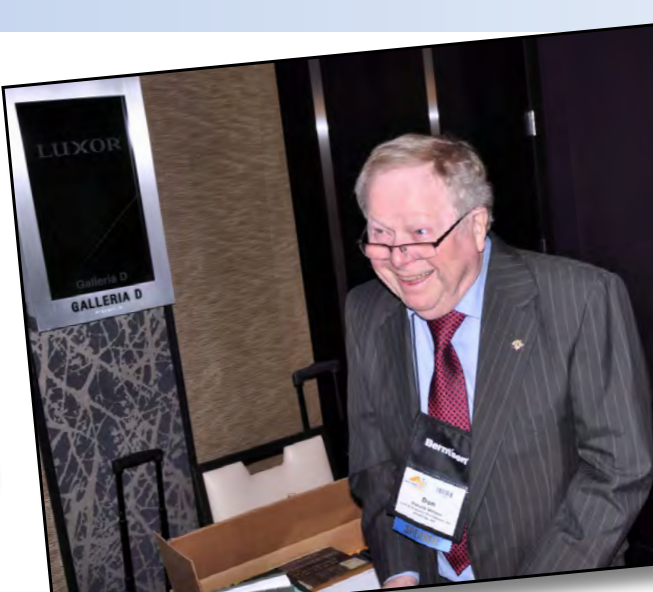
## SEE PHOTO GALLERY NEXT PAGE!

# CONFERENCE PHOTO GALLERY

Conference photos courtesy of Ken Hamblin









# PHOTO GALLERY

continued...









APLS NALS UCLS WFPS

# Western Regional Survey Conference

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# The Development of a Mock Trial

by Jason Paul Higgins, PLS

When Curt Ledford, Esq. and I hatched the idea early in 2017, of presenting a full day Mock Trial for the West-Fed Conference, any number of people asked “why a full day?”, followed closely by “we’ve never seen a full day Mock Trial”. Having participated in several half day Mock Trials, which really amount to 2 1/2 to 3 hours, I believed we were selling the professional community short. The shorter versions of the trial certainly appear to be in a courtroom setting, but court procedures and explanations of why something occurred, were forsaken for survey-centric facts and limited testimony. I wanted to provide a real courtroom setting, with audience participation. It took some convincing to the conference committee, but once approved, Curt and I were off to work. First we had to find a case that was applicable to both land surveyors and attorneys, as this was being geared towards both Professional Development hours for land surveyors and Continuing Legal Education for attorneys. I would take the lead on the technical aspects as one moderator, appealing to the attorneys and Curt would be the lead moderator on the legal aspects geared towards the surveyors.

Since the citizens of Nevada only recently approved the creation of appellate court in 2014, little case law exists to base a Mock Trial upon. After tireless research, Curt found a Nevada Supreme Court case we could work from. Since the Supreme Court does not hear actual testimony from witnesses or conduct fact finding trials; rather, the justices determine if legal or procedural errors were committed during the case. Therefore, we had to re-write the case, as if we were being tried at the district court level.

We were able to use the case as a framework to prepare a trial that would address numerous issues, such as: property overlap, junior/senior rights, adverse possession, interpretation of descriptions, encroachments and performance of duties by a professional. We created a fact sheet, using fictional names and locations, tax records, maps, deeds and a universal body of law. During the development of the case, I asked William O. Huggins III, friend and practicing attorney from Texas to help us with the procedural issues, general review and moderation of the trial. Will’s experience was invaluable in the development of the Mock Trial and during the trial itself.

Next was recruiting participants for the trial. This was much more challenging than anticipated and affirmed why this Mock Trial was so important. Most Professional Land Surveyors are good at being Professional Land Surveyors, not Professional Witnesses or Expert Witnesses. After many requests, we were able to secure a husband and wife team for both the plaintiff and defense parties, a judge from the Las Vegas Justice Court, an attorney for each party, a surveyor as one expert witness, a surveyor/civil engineer as the other expert witness and an additional expert, being a Nevada Licensed Contractor. We also had a six-person jury pool.

As details came together, it was the last weekend before the conference. I was reviewing the case, documents and my prepared remarks as co-moderator. This is where things started to go bad. I lost one of the plaintiffs, then 2 jurors and

on Sunday evening, the night before a federal holiday mind you, I lost one of the attorneys. His entire family was stricken with the flu and he was not feeling so hot himself. After a diligent search, we were able to replace the plaintiff and jurors. Finding a replacement attorney, one business day before a trial is something better left to Hollywood writers. No one knew the trial better than Curt, so he filled the role and spent the day before the trial preparing arguments and developing a strategy.

Trial day, we were set. Will stepped in as co-counsel with Curt and I assumed all of the moderator duties. The Mock Trial was un-scripted, meaning the witnesses were unaware of the questions, the jury had no prior knowledge of the facts and each attorney prepared their own case. We prepared a timeline, based on assumed times only, anticipating a certain level of fluctuation for opening arguments, presentation of each case with cross examination, closing arguments, jury instructions, deliberation and verdict.

We were able to have a short question and answer session during some breaks and had scheduled additional time for this at the end of the trial. The trial finished early, which allowed time to interact with the audience. All the trial participants responded to questions, with the judge, attorneys and expert witnesses fielding multiple questions each. Some were regarding the facts of the case, civil procedure and the actual testimony of the experts.

The Mock Trial had about 100 conference participants, we are very appreciative to those that attended and contributed. I would like to thank the Mock Trial team, a total of 19, for making this possible. Each brought their own personality and flair. Finally, thank you to the conference chair, Nancy Almanzan for the opportunity to be part of the West-Fed Conference.

⊗

## Has Your Contact Information Changed?

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Fill in your information and submit.

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to keep you current.

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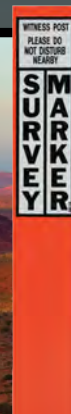
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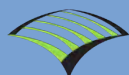
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- Site documentation for regulator permitting

#### Monitoring & Inspection

- Geological surface monitoring
- Structures and facility imagery and video
- Change detection over time
- Removing personnel from dangerous situations

#### GIS

- Imagery and elevation layers for databases
- Imagery classification and analysis

### Contacts:

**Kevin Almeter, PLS – Survey & Mapping Manager**

**Phone:** (775) 828-5687

**Email:** kalmeter@woodrogers.com

**Michael Detwiler, LSI – Photogrammetrist**

**Phone:** (775) 828-5688

**E-mail:** mdetwiler@woodrogers.com



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# LSG PROGRAM HIGHLIGHTS



## Program Statement

The Land Surveying and Geomatics program is committed to addressing the diverse and constantly changing needs of students throughout Nevada and in other locales who are preparing for a geomatics career by improving teaching methods, techniques, and content for delivering high quality educational experiences and achieving student success.

- **2 year AS Degree in Land Surveying and Geomatics**
- **4 year BAS Degree in Land Surveying and Geomatics**
- **Quality of Instruction: 100% pass rate on the NCEES Fundamentals of Surveying Examination**
- **Competitive Wages: average graduate mean salary \$50,000 - \$75,000**
- **Affordable: average graduate student loan debt 0\$ - \$5,000**
- **Accessible: program offers 100% of the courses online and through mentoring programs.**
- **2015 LSG graduate survey ranked the quality of this program as "excellent"**



## Great Basin College

Land Surveying/Geomatics Program  
Great Basin College  
1500 College Parkway, HTC 130  
Elko, Nevada (USA) 89801  
Phone: (775) 753-2344  
[www.gbcnv.edu](http://www.gbcnv.edu)





## SUSTAINING MEMBERS

FOLLOWING IS A LISTING OF SUSTAINING MEMBERS OF THE NEVADA ASSOCIATION OF LAND SURVEYORS. PLEASE REMEMBER THAT THESE FIRMS AND BUSINESSES, THROUGH THEIR NALS MEMBERSHIP, ARE SUPPORTING THE AIMS AND OBJECTIVES OF OUR ASSOCIATION.

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San Diego, CA (619) 435-1200  
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**Manhard**  
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# HIRING

## Survey Department Manager, Elko NV

### NEVADA PLS LAND SURVEY MANAGER (ELKO, NV)

Full time position with 4+ years experience required.

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## NALS Launches Job Board

Visit the NALS Website at: [NvLandSurveyors.org](http://NvLandSurveyors.org)

The screenshot shows the NALS Job Board website. At the top is a banner with the NALS logo and the text 'Job Board'. Below the banner is a navigation bar with links: 'Quick links', 'FAQ', 'ACP', 'MCP', 'Notifications', 'Private messages', and a user profile 'nalsboardadmin'. Below the navigation bar is a search bar and a list of job postings. The list has columns for 'TOPICS', 'REPLIES', 'VIEWS', and 'LAST POST'. The postings are:

TOPICS	REPLIES	VIEWS	LAST POST
Western NV College - Instructor Needed by nalsboardadmin » Thu May 17, 2018 9:19 pm	0	1	by nalsboardadmin » Thu May 17, 2018 9:19 pm
Senior CAD Technician by sgrimmitt » Thu May 17, 2018 3:36 pm	0	1	by sgrimmitt » Thu May 17, 2018 3:36 pm
Welcome to the NALS Job Board by nalsboardadmin » Wed May 16, 2018 11:57 pm	0	8	by nalsboardadmin » Wed May 16, 2018 11:57 pm
Welcome to phpBB3 by nalsboardadmin » Sun Apr 15, 2018 12:10 am	0	3	by nalsboardadmin » Sun Apr 15, 2018 12:10 am

At the bottom of the screenshot, there is a 'Return to Board Index' link and a 'Jump to' dropdown menu.

NALS has launched a new job board to help employers fill vacancies and members search for new opportunities. The job board is a separate system from our members' portal, to post you will need to register and follow the onscreen prompts. Registration is free. You do not have to register to view postings.

# GPS on Bench Marks



## Improve Your Heights

As a community, we have the unique opportunity to contribute to the densification and improvement of our national geoid model and vertical transformation tools in support of the ongoing modernization of the National Spatial Reference System. NGS' current hybrid geoid model, GEOID12B, relying on about 25,000 "GPS on bench mark" observations, provides GPS access to NAVD 88. For the past several years, NGS has been asking stakeholders to collect, submit, and share their data to improve the NGS models and tools as part of the GPS on Bench Marks program.

While the geoid model is a national level product, the impacts of this work are directly felt within our cities, counties, and states. Surveyors are especially well placed to contribute in their local regions to improve the model and ensure more accurate local heights. NGS is asking people to collect GPS data on certain leveled marks. This data will be used to create GEOID18 which will ultimately replace 12B. The new model will be used to derive NAVD88 heights from GPS ellipsoid heights, as well as the transformation tools that will be released with NAPGD2022.

## NALS Can Help

1. Go here: [geodesy.noaa.gov/GPSonBM/](https://geodesy.noaa.gov/GPSonBM/)
2. Choose your target BM.
3. NGS is asking for two separate occupations of at least 4-6 hours separated by at least two days.
4. Take a photo of the BM and a photo of the set-up.
5. Wait to submit until the precise ephemeris is available.
6. Submit to OPUS , Enable the Shared Solutions and follow the prompts.







# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

Nevada State Office  
1340 Financial Boulevard  
Reno, Nevada 89502-7147  
<http://www.blm.gov/nv>

**APR 03 2018**

In Reply Refer To:  
9600 (NV952)

Nevada Traverse  
Attn: Mr. Carl C. de Baca  
526 South E Street  
Santa Rosa, CA 95404

Dear Mr. de Baca,

The following is a list of survey that was accepted from January 01, 2018 through March 31, 2017. The records of these survey are available in the Information Access Center at the Bureau of Land Management's Nevada State Office, located at 1340 Financial Blvd. in Reno, Nevada 89502.

<u>Township and Range</u>	<u>Date Accepted</u>	<u>Type of Survey</u>
T. 19 S., R. 62 E., M.D.M.	01/25/2018	Dependent Resurvey, Subdivision and Metes-And-Bounds Survey
T. 14 N., R. 70 E., M.D.M.	01/24/2018	Supplemental Plat of Section 19

Please feel free to circulate this letter among the membership of the Professional Land Surveyors of Nevada. The plat and field notes of the surveys listed above, along with all GLO/BLM survey plats and field notes for Nevada can be found at: [www.blm.gov/nv](http://www.blm.gov/nv). Click on "Information Center" and select "Land Records Search." For additional information about Cadastral Survey in Nevada, please visit our website, at [www.blm.gov/nv](http://www.blm.gov/nv) and click on "What we do," then click on "more" and select "Cadastral Survey."

If you have any questions, please contact Wayne Strickland, Supervisory Cadastral Surveyor, at (775) 861-6557.

Sincerely,

Michael O. Harmening  
Chief, Branch of Geographic Sciences

Official Records



# NALS Board of Directors Meeting

Friday, April 13<sup>th</sup>, 2018 • Poggemeyer Design Group offices • Las Vegas, NV

## MINUTES

### CALL TO ORDER

President Jerry Juarez called the meeting to order at 8:30 AM.

### ROLL CALL

Jerry Juarez, President  
Jason Higgins, President-Elect  
Greg Phillips, Secretary  
Jason Fackrell, Treasurer  
Crissy Willson, Executive Director  
Justin Moore, Director  
Doug Larson, Director

### Absent

Alan Dill, Immediate Past President  
Chris Konakis, Director  
Jeff Miller, Director  
Gene Sawyer, Director

### Guests

Jolene Hoffman, Great Basin Chapter

### PRESIDENT'S REPORT

Report distributed (attached)

President Jerry Juarez thanked Jason Fackrell and Poggemeyer group for hosting the NALS Board meeting.

Jerry reported attending the Conference and discussed the great feedback received from surveyors across the country.

### PRESIDENT-ELECT'S REPORT

Report included in agenda.

President-Elect Jason Higgins reported organizing the Mock Trial for the Conference which received great feedback.

### TREASURER'S REPORT

Financials included in agenda.

Treasurer Jason Fackrell reviewed the financial statements as included in the agenda.

Crissy Willson reported receiving multiple requests for open positions to be added to the NALS website. Crissy recommended development of a job board which will for individuals to post and manager their positions. The board would be moderated by the Executive Office prior to posts being published so that only job positions are posted. The cost of development would be \$500 and would need to be allocated in the budget. The Board discussed the recommendation and agreed it would be a benefit to the surveying community. The Board discussed logistics and

agreed that postings for members will be free and non-members will be charged a nominal fee.

**MOVED** by Doug Larson and **SECONDED** to allocate \$500 to add a job board to the website. **MOTION CARRIED.**

**Action Item:** Crissy Willson to launch NALS Job Board.

**MOVED** by Justin Moore and **SECONDED** to accept the treasurer's report. **MOTION CARRIED.**

### EXECUTIVE OFFICE REPORT

Report included in agenda.

Executive Director Crissy Willson reported that the Southern Nevada Chapter has requested a membership survey be conducted. In reviewing NALS records in appears it has been several years since a questionnaire has been sent. Crissy recommended that a committee develop a questionnaire to be reviewed by the Board prior to dissemination.

**Action Item:** Membership Committee Chair Justin Moore to work with Crissy Willson and other committee members to develop a questionnaire.

A draft conflict of interest and antitrust policy was provided to the Board in January for review.

**MOVED** by Jason Higgins and **SECONDED** to adopt the conflict of interest and antitrust policy. **MOTION CARRIED.**

**Action Item:** Crissy Willson to add the conflict of interest policy to the Board Handbook.

The Board discussed the fact that many of the existing guides and policies that were adopted in the past are outdated and need to be reviewed.

**Action Item:** Crissy Willson to gather all existing guides/policies and send to the Board with recommended updates. Once revised/adopted they will be added to the Board Handbook.

### ADVANCED TECHNOLOGY

The Board discussed the NGS Benchmark program. It was reported that Carl C.deBaca would be including a flyer in the Traverse. Crissy Willson reported that a shared Google Sheet has been created so any volunteer can access the sheet and update the specific benchmark.

**Action Item:** Jason Fackrell to contact Jon Wooten to determine what NALS needs to do for the program on NGS Benchmarks

### BOARD OF REGISTRATION LIAISON

CONTINUED ON NEXT PAGE ►



Report included in agenda.

The Nevada Board of Registration for Professional Engineers and Land Surveyors (NVBPELS) is undergoing sunset review process. The NALS Board of Directors sent a letter supporting the continuance of the licensing board.

Board of Registration Liaison Greg Phillips distributed the NVBPELS proposed legislation which the Board reviewed and discussed. (Attached)

**MOVED** by Jason Higgins and **SECONDED** to support the NVBPELS proposed changes as presented and direct Greg Phillips to draft a letter of support to be signed by President Jerry Juarez. **MOTION CARRIED.**

**Action Item:** Greg Phillips to draft a letter of support for Jerry Juarez to sign.

#### ADVANCED EDUCATION

No report.

President Jerry Juarez to contact Gene Sawyer to determine if he is still interested in serving as Chair of the Advanced Education Committee.

#### BYLAWS

Report included in agenda.

#### COMMUNICATIONS/PUBLICATIONS

The Traverse was released at the end of February and copies were available at the Conference. The next Deadline for the Traverse is May 1<sup>st</sup>.

#### LEGISLATIVE COMMITTEE

Report included in agenda.

Legislative Committee Chair Jason Higgins reported on the activities of the Legislative Committee. The Committee has held several conference calls and developed a list of goals. Jason reported that proposals from potential lobbyists will be received and reviewed.

#### OUTREACH

The Board discussed the importance of outreach.

**Action Item:** Outreach Committee Chair Jason Fackrell to write an article on the importance of mentorship. Jason to develop a list of potential outreach opportunities for the next Board meeting.

#### PROFESSIONAL PRACTICES

No report.

#### WFPS

The next WestFed meeting will be held at the end of April in New Mexico.

#### CHAPTERS

Lahontan Chapter report included in agenda. The Chapter will be hosting a golf tournament as well as a family night at the Aces baseball park. Planning for the Lahontan Chapter seminar is underway.

Southern Nevada Chapter report distributed. (Attached)

The Board welcomed Jolene Hoffman as a guest to represent the Great Basin Chapter. Jolene discussed the challenges due to the large geographic area covered by the Chapter. Holding traditional monthly meetings is difficult. Jolene is recommending use of virtual tools such as GoToMeeting to increase participation at the Chapter level. The Board encouraged Jolene to pursue the idea. Crissy reported that the Executive Office can assist with marketing the meetings through the NALS website and email blasts.

#### ADJOURNMENT

President Jerry Juarez adjourned the meeting at approximately 3:00 PM.

⊗



of great white pelicans. Fortunately, that did not happen. Never the less, the water level at Pyramid Lake was lowered between eighty and ninety feet. This resulted in a concentration of dissolved solids, significantly lowering water quality in the lake.

Winnemucca Lake, a playa basin in the valley just east of Pyramid Lake, received overflow waters from the Truckee River for countless millennia. The two lakes were habitat for the now endangered cui-ui fish, which together with the Lahontan cutthroat trout, spawned in the Truckee River at least as far upstream as present day Sparks. At the margins of Winnemucca Lake, even in low water years, were vast wetlands that were an important stop for migratory birds on the Great Western Flyway. After the construction of Derby Dam, the Truckee River no longer fed Winnemucca Lake and it began to dry up. In an effort to rescue the lake, the Roosevelt administration designated Winnemucca Lake a national wildlife refuge in 1936, but the effort to save the lake failed and by 1938 it was completely dry. In 1962 the refuge designation was lifted.

Battles over the Truckee River continued all through the 20<sup>th</sup> Century. In 1924 a Special Master was appointed to oversee hearings in an attempt to resolve the conflicting claims to the river's water. The Special Master recommended creating a new decree governing the Truckee River and a proposal was drafted. In 1926 the District Court issued a temporary restraining order enforcing the proposed decree. No further legal action ensued, but another drought brought the matter to everyone's attention once again. In 1935 a new decree was signed by the major parties to the litigation, which included the United States of America, TCID, Washoe County Water Conservation District and Sierra Pacific Power Company.

Finally in 1944, the U. S. District Court for the District of Nevada entered its Final Decree in *United States v. Orr Water Ditch Company, et al.* The decree approved and incorporated the settlement as outlined in 1935 and adjudicated all water right claims on the Truckee River in Nevada, including its tributaries and all ditches, dating back to 1913, when the suit was brought. It has since been modified several times. Likewise, the Carson River was subject to legal actions, such as the Anderson-Baseman Decree in 1905, the Price Decree in 1921 and the Alpine Decree in 1980, to name a few. Legal actions continue in all river basins within the state.

In 1931, the U.S. Congress created the 17,900-acre Fallon National Wildlife Refuge, where the Carson River empties into the Carson Sink. This place too is an important stop for migratory birds. But periodic dry years did not generate enough water to maintain the Refuge as a viable wetland and bird sanctuary. The U.S. Fish and Wildlife Service now manages the area as part of the Stillwater National Wildlife Refuge, established in 1949. The agency purchased privately held water rights to ensure enough water to maintain the refuges.

The U.S. Bureau of Reclamation proceeded with efforts to increase upstream storage on the Truckee and Carson Rivers. Construction on Boca Dam, on the confluence of the Truckee River and Little Truckee River at Boca, California was completed in 1940. Prosser Dam, located on Prosser Creek a few miles northeast of Truckee, California, was completed in 1962. Stampede Dam, upstream from Boca Dam on the Little Truckee River, was completed in 1970. Marble Bluff Dam, a few miles upstream from Pyramid Lake on the Truckee River, was completed in 1975. None of the projects planned for the Carson River were ever funded.

From 1882 onward, agricultural diversions from the Walker

River have resulted in a drop of nearly 160 feet in the surface elevation of Walker Lake, or a loss of nearly 7.5 million acre-feet of water. This resulted in a sharp increase in dissolved solids and a corresponding decline in water quality, threatening the lake's fishery, particularly the federally protected Lahontan cutthroat trout population. These fish survive in Walker Lake today from hatchery stocks, as they can no longer reproduce in the wild.

Walker lake is also an important stop for migratory birds on the western flyways. In 2009 the Bureau of Reclamation began a congressionally sanctioned program to acquire water rights, or land with water right appurtenances, to add water back into the basin. Like Pyramid Lake, Walker Lake is in a closed basin with no outlets, remnants of the once vast inland sea called Lake Lahontan. These two bodies of water are some of only a handful of so called endocrine lakes, or fresh water terminal lakes, on the planet. A further increase of the salinity of the lake will doom its fish population. The Bureau seeks to increase the flow into the Walker River, while balancing the interest of landowners, water-user organizations, Indian tribes, local, state and federal agencies and conservation groups, such as the Nevada Wildlife Federation.

James Edward Church came to the university in Reno in 1892 to teach Latin, German, Art Appreciation and Literature. He later left Reno to obtain a Master's Degree from a university in Michigan and his doctorate from a university in Munich, Germany. He returned to the University of Nevada in 1901. He continued his teaching career until 1939. Widowed in 1922, Church traveled extensively abroad preaching the gospel of snow surveys. He was one of the founders of the Nevada Art Museum, now the Nevada Museum of Art in Reno, and remained active in the arts for the rest of his life. Dr. Church died in Reno in August 1959. The Church Fine Arts Building on the UNR campus is named in his honor.

Surveyors from Sierra who participated in the snow surveys did not collect data on company time, but rather on weekends and were paid through the Snow Survey Program. Sierra Pacific worked jointly with the Soil Conservation Service to collect and store snow survey data since the 1920's. As more snow survey sites were automated, Sierra Pacific's participation ended. A few snow surveys are still conducted manually, using an updated Mount Rose Sampler. Now nearly all of the data collection is done with ground-based automated sensing equipment or by remote sensing. In 1994, the Soil Conservation Service name was changed to the Natural Resources Conservation Service to better reflect the scope of the agency's purview. This writer participated in the Cooperative Snow Survey program for many years during the 1960's and 70's, while employed at Sierra Pacific Power Company.

In the 1960's SPPCo closed the Reno hydroelectric plant. It was located on Idlewild Avenue in Reno. Its flume was also removed.

In 1984 Sierra Pacific Power reorganized as Sierra Pacific Resources, a holding company. 1999 Sierra Pacific merged with Nevada Power from Las Vegas, creating NV Energy.

The New Year's Day flood of 1997 demolished Sierra Pacific Power's Farad diversion dam on the Truckee River. A year or two earlier 900 feet of the wooden Farad flume failed. This writer, together with other surveyors from Sierra Pacific, prepared detailed topographic maps for the reconstruction of the flume, as well as for a new dam. A new location for the diversion dam was proposed, if the new location fell within the company's existing water right. However,

CONTINUED ON NEXT PAGE ►



locating Sierra's water right within Brown's 1874 cadastral survey became challenging. After recovering the nearly non-existent 1863 California-Nevada Territory boundary, it became clear that Forman's township line did not close on that line, as his field notes clearly stated. The matter of whether Forman's monuments should be treated as points on a closing line was taken to the BLM for resolution. Foreman's western township line was held, as surveyed, ignoring the 1863 boundary. Retracing Brown's survey showed that it too was significantly flawed, but the 80-acre government lot containing the water right location was finally determined.

Design of a new dam for the Farad Powerhouse was completed, based on the water right location. The proposed dam is roughly 600 feet upstream from the original structure. However, litigation between the power company and insurance companies over coverage of the 1997 flood damage stalled construction. In 2001, the power company sold the powerhouse and related assets to the Truckee Meadows Water Authority (TMWA), together with all the remaining hydro plants on the Truckee River. But the insurance litigation prevented delivery of the Farad facility. The litigation was concluded in 2017.

20 years on, plans for the construction of a new dam, rebuilding the flume and the reopening the 118 year-old Farad Powerhouse have been shelved by TMWA. Nevertheless, the Farad Powerhouse is historically significant for its important contribution to the early development of western Nevada.

In 2000 the once proud engineering firm of Stone & Webster filed for bankruptcy. Founded in 1889, the company built everything from the MIT campus to large power generation stations all over the country, including Sierra Pacific Power's Valmy and Fort Churchill Stations. Mismanagement, a foreign bribery scandal and an investor lawsuit brought the company down. The Shaw Group purchased the firm at auction. It reemerged in 2003 as a subsidiary of the Shaw Group.

In 2014, the Bureau of Land Management began removal of the extensive ruins of the United Comstock Mines Company's former mill in American Flat. The mill ruins, which at one time were considered eligible for listing on the National Register of Historic Places, were deemed a hazard to public safety and demolished.

Nevada's water issues are far from unique, of course. There is presently a growing worldwide shortage of fresh water. Only about 3% of the earth's water is considered fresh and much of that is locked in ice. At the present, 1.1 billion people on the planet suffer acute lack of water and a total of 2.7 billion people find water scarce for at least one month each year. At the present rate of consumption, it is estimated that two thirds of the people on Earth will suffer water shortages by the year 2025.

As for the Truckee River Basin, its future too will be challenging. Water storage capacity in the Basin is less than twice the average inflow volume. The ability of the Truckee River Basin reservoir system to provide enough water over a prolonged drought was and will continue to be problematic, particularly in light of the rapid growth in the region. A recent Bureau of Reclamation report to Congress noted that the Basin contains every form of water use and every type of water user the American West has to offer. The diversity of those uses "has made the basin home to every type of water resources conflict."

The past is prologue.



# Lahontan Chapter Report

by Doug Larson, PLS, President - Lahontan Chapter

## Winter 2016-17

It is truly my honor to introduce the 2018 Board of Directors for the Lahontan Chapter 2018 Officers:

President Doug Larson, P.L.S. [dlarson@nvenergy.com](mailto:dlarson@nvenergy.com)  
President Elect Todd Enke, P.L.S. [tenke@lumosinc.com](mailto:tenke@lumosinc.com)  
Secretary Ken Mandryk, P.L.S. [kmandryk@eseconsultants.com](mailto:kmandryk@eseconsultants.com)  
Treasurer John Gomez, P.L.S. [johnngomez@qdconstruction.com](mailto:johnngomez@qdconstruction.com)  
Director Kevin Almeter, P.L.S. [kalmeter@woodrogers.com](mailto:kalmeter@woodrogers.com)  
Director Dan Church, P.L.S. [sierrasurveying@sbcglobal.net](mailto:sierrasurveying@sbcglobal.net)  
Director David Crook, P.L.S. [dcrook@LumosInc.com](mailto:dcrook@LumosInc.com)  
Chapter Representative Justin Moore, P.L.S. [justin@odysseyreno.com](mailto:justin@odysseyreno.com)

## Past Activity

### January Meeting:

As has become customary, our monthly meetings are held the 2nd Wednesday of the month at the Twisted Fork restaurant in Reno. Our first meeting of the year was special inasmuch as we were able to present a check to Mr. Jim Dorsey P.L.S. to help him in a time of need. We also took a few minutes to remember three members of our surveying community who had recently passed on: Mr. Dale Kulm P.L.S., Mr. Andy Daniels and Mr. Harry Ericson P.L.S. The new officers were also sworn in by the new State President Jerry Juarez.

### February Meeting:

Cancelled due to the conference in Las Vegas February-21 to February-24 2018.

### March Meeting:

March 14, at the Twisted Fork. Pat Tami gave a fascinating presentation on the goings on at NCEES regarding testing, comity, and other licensure issues. Nick Montoya, Jasen Solt and Kyle Killian were recognized for competing in the NSPS National Student Competition at the conference in Las Vegas. Also at the March meeting we were both proud and saddened to present Jim Dorsey's NALS life member award to his son Ted. Jim passed away March 11, 2018 before he could receive the award which was bestowed upon him at the conference. He will be missed profoundly. We also noted the recent passing of Doug Hopkins P.L.S. a founding member and 1977 NALS State President.

The Lahontan Board approved a \$500 donation to a new start-up Boy Scout Troop in the Carson Valley. The troop is to be led by our President Elect Todd Enke P.L.S.

NALS members Dan Church and Jason Castor participated in Career Days for Dayton, Sutro & Riverview Elementary Schools this past February 28th.

NALS members Doug Larson, Matt Gingerich, Jake Johnson and Seth Horm, Lance Smith and Brett Clarke had a table at a career day at North Valleys High School on March 1st.



# John Roy Brooke

## Rest In Peace



Reno - On Saturday, March 24th, we lost a great father, and Northern Nevada lost one of her great intellectuals when John Brooke died peacefully with his family by his side at the age of 83. He was preceded in death by his loving wife Donna, and is survived by his brother James Brooke, his sister Pamela Shirkey, his three children, Vickie, Eric and Molly, seven grandchildren, two great-grandchildren, and many nieces and

nephews, including Jeff Brooke and Mark Ronchetti who loved him like a father.

Born in Sacramento in 1934 to Mary and Royal Brooke, John Roy Brooke moved to the Truckee Meadows in 1947 where he graduated from Sparks High School in 1952 and married his high school sweetheart, then Donna Ronchetti. He entered the University of Nevada in Reno, earning a degree in Civil Engineering in 1960.

John's professional career spanned decades. In college, he worked as a land surveyor on the crews responsible for establishing the boundaries for many Reno area roads and power and telephone lines, including the telephone lines on Mount Rose and on Peavine Mountain.

He began his public service as City Engineer for Sparks, becoming Director of Public Works for the city, and finally City Manager of Sparks from 1967 to 1973. Among his accomplishments as City Manager, his push for funding to establish the Parks and Recreation Department for the City of Sparks was his proudest. Always progressive, one of his final acts as City Manager was to hire Stacey Piro as the first Director of this new department, significant because she then became the highest ranking woman official in local government.

Reporting on his resignation from the city, a 1973 article in the Nevada State Journal ended with a line that seems fitting here as well: "One can almost see John Brooke... removing his tie in his own controlled fashion, looking up to the sky and smiling broadly as he walks away from it all."

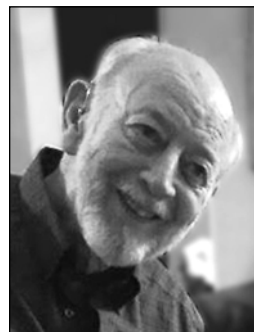
After his time with the city, John briefly went back to land surveying, then took the helm of the Northern Nevada branch of the State Contractors Board. Later, he was instrumental in several significant development projects including Lakeridge, Caughlin Ranch and Montrêux, for which he was Project Manager. As a civil engineer, John worked on several prominent local structures including the Fleischmann Planetarium, the Pioneer Theatre and many local roadways and bridges.

### Memories of John Brooke

So sad to hear the passing of John Brooke he was a good man and a Great Land Surveyor very nice to work with. Luckily, I was able to work with John when I was starting my survey career. This isn't the best picture of him but that is John sitting

on a typical Surveyors Chair (the instrument box) with his head down working away, this is one of only two times in my 40 plus years of surveying where we got to do a Solar Shot. These pictures are from around 1979 in Montgomery Pass surveying mining claims. That would be my Pop's Ralph Gump posing for an action photo. Now the other picture is John's nephew Jeff Brooke who was still in high school spending his summer off surveying with us (poor guy). Ralph the one supervising Jeff on digging out a stuck truck was really pissed off at me for talking him into climbing this hill. I still have my HP41 calculator which was a going away present from the company we worked at in 1982; John wrote an awesome surveying program inverse, traverse, coordinate storage and his intersection program many of us still use. Michael Ulving and Victor Erickson also had the privilege of working with John, he will be missed.

**-Mike Gump**



I met John in the mid 80s when I went to work at Omni-Means Engineering. He was always ready to give advice and assistance on proper survey procedures. He was also helpful by providing custom survey programs for the HP 41, making field calculations easier and quicker. Under his guidance I did my first solar shot, was given opportunities to take the lead on survey projects conducting control and field survey verifications. He became a mentor to me, encouraging me to become a PLS

in Nevada and then in California. While working with John I saw what it meant to be a Professional Land Surveyor and how one should conduct himself as a professional. After leaving employment at Omni-Means and continuing my journey as a Professional Land Surveyor I kept in contact with John. As time passed John became more of a friend getting together having a few beers talking stories and discussing surveying or different projects that he or I was involved in. I will always remember John as a man that was willing to help me to becoming a better surveyor and advance to the professional level. Later in life as a fiend that was always happy to see me and take time to BS and have a laugh. He is going to be missed by me.

**-Vic Erickson**

I have met and worked with many extraordinary people over the years in this profession but none as stellar as my uncle John. This is without bias. He is known to many as a man of great integrity, humor, kindness and intelligence. He was truly extraordinary.

John loved mathematics and science. He worked every night after dinner on surveying or math problems punching away at his HP-45 or later, his 41-CX. After Hewlett-Packard came out with the first hand-held calculators in the mid to early 70's, John bought an HP-45 and with great exuberance, put that thing through its paces. The 41-C, a hand-held with continuous-memory, turned out to be a life-long affair for him. He wrote many programs that he shared freely with the surveying community and which are still in use by many surveyors today. He was genuinely a kind and giving man.

I know many surveyors and engineers who learned a great deal from John. He had a primary love of surveying and he always

CONTINUED ON PAGE 40 ►



# Douglas William Hopkins Rest In Peace



Sparks - Douglas William Hopkins was born March 30, 1934 to Gail and Charles Hopkins in Spokane, Washington and died February 28, 2018 at Northern Nevada Medical Center in Sparks, Nevada.

Douglas served four active duty years in the Air Force and remained as a reservist for another twenty years before he retired as a Lieutenant Colonel.

While in the Air Force stationed at Stead Air Force Base he met his wife of 61 years, Marie Blackett. They had one daughter, Jennette Hopkins Mariluch.

Douglas graduated from UNR with a degree in civil engineering and worked for Washoe County for 34 years in engineering and land surveying.

He is survived by his wife and daughter, two grandchildren: Paul Mariluch and Ashley (Drew) Ousley, three great-grandchildren: Logan Mariluch, Brooke Ousley and Kylee Ousley, a sister: Marjorie Nicholson and seven nieces and nephews in Illinois.

A military service is scheduled for 12 noon, Friday, March 16, 2018 at the Northern Nevada Veterans Memorial Cemetery in Fernley, NV. Family and friends are all welcome. Walton's Sparks Funerals and Cremations was entrusted with arrangements.

*Published in Reno Gazette-Journal on Mar. 7, 2018*

⊗

# James "Jim" Dorsey Rest In Peace



It is with great sadness that the family of James Robert Dorsey "Jim" would like to inform you of his passing on March 11, 2018 at his home in Reno Nevada after a brief battle with cancer.

He was born December 10, 1936 in Los Angeles, California. Jim will be lovingly remembered by his wife of 61 years, Elsie; and his two sons: James Edward Dorsey (Kathleen) and Thomas Eugene Dorsey (Sue). Jim will also be fondly remembered

by his 3 Grandsons, 4 Great-Grandchildren; and 2 sisters: Judy Woodson Taylor and Sue May Witczak.

His Funeral Service was held on Saturday, March 24, 2018 at The

Immaculate Conception Catholic Church on 2900 N. McCarran Blvd, Sparks, Nevada.

*Excerpted from the Reno Gazette-Journal*

My association with Jim was the early days when I recruited him out of California to come to work for me as a deputy county surveyor. After a few years the big 'Clark County shake-up' put him in the development services department with several other of my staff and there was bitterness all round, and I lost touch with Jim.

I do know that he had extensive title background and had written 2 or 3 books on California wetlands, tidal and overflow lands, littoral and riparian rights, etc. In addition, James Dorsey was a former Chairman of the California Board of Professional Engineers and Land Surveyors and was the first LS to hold that title, at about the same time Nelson Myer became the first Nevada Board PLS Chairman.

I assisted Jim on research for several title company projects that he continued to take in Clark County after he retired, in those years while I was still in office. Nothing more than assembling records, or giving him my personal and professional knowledge about it.

Other than that we just shared private moments when we could at seminars he gave, or at other meetings. We always remained friends through all of the county power-play controversy and we maintained mutual respect for each other.

We were very close at the end because God intended it to be that way for both of our mutual benefit.

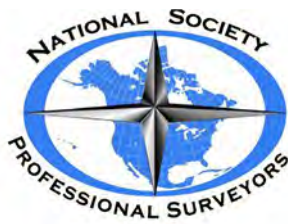
**-Brett Lane**

## Where to start?

I had the rare opportunity to spend the first half of my career in Las Vegas, where I met many great surveyors who've turned out to be good friends as well. But none were quite like Jim Dorsey. I recall going to one of the first seminars on my way to become licensed and I'll never forget the opening few minutes where Jim told a joke, as he's done many times. I thought it was so funny that I laughed out loud and quickly noticed the group glaring at me with a puzzled look. Let's just say the joke didn't... well you know. That was the first time I realized Jim's very different sense of humor and a close, long lasting friendship was born. Even though he and I were on opposite sides of the aisle he just loved talking about politics and I was the perfect person to rile him up. "I'm not one to push my beliefs on anyone and I hope you don't take offense, but..." If I had a quarter every time I heard that.

There is another subject he liked talking about more than politics and, of course, that was land surveying: anything about it, the current project he was part of, any project of the past he was part of, the newest technology, how the newest technology didn't teach what the surveyor needed to know, what's going on with NALS, how's so and so, when the next meeting was, how much material he had to put on a seminar, can you let everyone know I'm still available to put on a seminar. He absolutely loved being a teacher and being part of a land surveyor's journey. I think for most surveyors, there are only one or two people you can look back on in your career and honestly say this person was a big part of what you learned to become a land surveying professional. I can honestly say he was that person for me, that mentor, and best of all he was a good friend.

CONTINUED ON PAGE 40 ►



# NSPS Report

by Paul Burn, PLS, Former Nevada NSPS Director

## NSPS Board of Director's Meeting Spring Business Meeting – Las Vegas, Nevada February 21 & 22, 2018

The NSPS Board of Director's Spring Business Meeting was held at the Luxor Hotel and Conference Center in Las Vegas, NV on Wednesday, February 21 and Thursday, February 22, 2018.

For the 2018 NSPS Student Competition, each winning team was presented with the "Michael & Ann Besch" Award in recognition of Mike and Ann's long commitment to the education of surveyors. Ann personally awarded each team with their respecting award to a standing ovation. *(Please note: there is no report on WSDC meeting, or the ALTA Committee meeting, as I served as a judge for the Student Competition. So, this report will just be the two days of NSPS business)*

### DAY 1 (COMMITTEE REPORTS):

#### Opening Proceedings

#### Board Reports of more significance:

- CST Board – verbal report by Ron Torrence
  - Increased interest in examinations
  - Continued renewals by majority of certificate holders
  - Review and updating of all test questions by end of 2018
- NSPS Foundation – verbal report by Wayne Harrison
  - Continuing requests from Texas, Florida, Puerto Rico, and USVI
  - Over \$100K in grants given to 40+ applicants
  - SmartVent working with Foundation to sponsor website
  - Introduction of POB monument in addition to Final Point monuments
- Membership – verbal report by Wayne Harrison
  - Suggesting to states to offer new registrants first year free membership to entice future involvement
  - Lisa Isom gave a presentation on the NSPS Insurance Program
- Government Affairs – written and verbal report summary by Pat Smith
  - See written report for full text of committee activity

- on NSPS website (great reading!)
- NSPS Political Action Fund (PAC) – verbal report by Jon Warren
  - Challenge to all states to help raise \$100K by end of 2018
- Railroad R/W – verbal report by Bob Akins
  - Continuing efforts on railroad interaction with recent RR tragedies being highlighted
- State and Local Government – verbal report by David Holland
  - States need to start putting plans for updating geodetic requirements to 2022 datum soon
- ALTA/NSPS Land Title Surveys – written report submitted
- Unmanned Aerial Systems – written report submitted
  - Discussion of AUVSI website and pending legislation
- Youth Outreach – verbal report by Tommy Brooks
  - Committee continues to look for opportunities to promote survey to various groups
- Trig Star – verbal report by Tony Gregory
  - Program continues to grow but still needs more volunteers
- Workforce Development – verbal report by Emily Pierce
  - Efforts nationwide are building momentum, will need to continue push to see real results of surveying becoming better known within STEM
- Federal Emergency Management Agency (FEMA) – verbal report by Dan Martinez
  - Currently developing website for FEMA information clearinghouse for surveyors to exchange information
- International Federation of Surveyors (FIG) – verbal and written report by John Hohol
  - Two bidders for FIG 2022 – US & South Africa
  - Will attend Congress in May to present for awarding of 2022 bid

#### Motions Distributed for Consideration:

- Motion 1: Membership Request to APPAT (ExCom)
- Motion 2: Revisions – Article V, Section 6 (Bylaws Committee)
- Motion 3: Revisions – Existing Bylaws (Bylaws Committee)
- Motion 4 – Dues Increase (Akins / Burch)

All submitted written reports can be found here:

<http://www.nsps.us.com/page/Reports>

### DAY 2 (BUSINESS MEETING AND VOTING OF MOTIONS):

#### Executive Committee Reports:

- President – Opening comments, discussion of use of STEM monies





- President-Elect – Increased activity of committees but keep going
- Vice President – Thanks for support in election
- Treasurer – great amount of discussion and communication regarding the proposed dues increase
  - Expenditures have increased while membership has leveled off
  - Potential for financial windfall with FIG Congress in 2022 but will need funds to keep pace with spending
- Executive Director – quarterly report submitted

#### Old Business

- Motion – UAV Committee Sub-Consultant Contract (Withdrawn)

#### New Business

- Motion 1: Membership Request to APPAT (ExCom) - Passed
- Motion 2: Revisions – Article V, Section 6 (Bylaws Committee) - Passed
- Motion 3: Revisions – Existing Bylaws (Bylaws Committee) - Passed
- Motion 4 – Dues Increase (Akins / Burch) - Postponed (Final motion documentation can be found on NSPS website)

#### Key Director Ballot & Previous Award

The 2017 Fall NSPS Business Meeting Key Directors was presented to Emily Pierce and Joanne Williamson.

The recipient for the 2018 Spring Business Meeting Key Director by written vote is Rich Vannozzi.

#### Next Meeting:

To Be Held with the Maryland Society of Surveyors Conference, College Park, MD on October 17-20, 2018

I would encourage all Nevada surveyors to log on to the NSPS website from time to time, and read your email edition of “News and Views” on Wednesdays. As this is my last report, since I have stepped down as your Nevada Director, I want to thank you for your support. The many officers and members I’ve served for fourteen years have been very respectful and good to me, and please know how much I’ve appreciated our common service relationships. I wish every success to NALS, and its new Director Carl CdeBaca, as we all move forward in the integrity and honor of our profession.

Thank you.

Paul Burn, P.L.S.  
Former Nevada NSPS Director



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## 2018 GBC TEAM!



Jasen Solt, Kyle Killian, Nick Montoya, Sarah Walker, student advisor Jolene Hoffman, Laurie Pierce-Price, Victoria Blackburn

# WFPS Highlights

WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

# WFPS

The Western Federation of Professional Surveyors (WFPS) held a Board of Directors meeting on April 28, 2018 in Albuquerque, New Mexico.

## State Information:

**ARIZONA** - APLS has launched a new website which provides members new resources (AzPLS.org).

The Governor's move for deregulation has been a focus of APLS. The Arizona Board of Technical Registration has complied with the Governor's Executive Order to provide information and comparisons with similar boards in other states. The move to deregulate boards stemmed from the group ALEC.org which provides boilerplate legislation for states including the Occupational Board Reform Act.

**CALIFORNIA** - SB 2 went into effect on January 1<sup>st</sup> and requires a \$75 per parcel fee for the recording of certain documents which is being applied by most County Recorders to Record of Survey maps.

**COLORADO** - PLSC helps fund the website CP-DB.com which includes information on Colorado survey monuments.

The legislative bill for mandatory continuing education made it through the house but not the senate. Architects already have continuing education. Engineers are not in favor of continuing education but did not oppose the bill for surveyors.

PLSC has constructed a virtual sandbox as an interactive display for career fairs and other outreach events.

A state lobby day was held to celebrate National Surveyors Week. This included exhibits which provided outreach to the legislators and the general public. This was very successful and will be continued on an annual basis.

Legislation passed by the County Recorders that they no longer have to maintain hard copies. PLSC is working to have this reversed.

**HAWAII** - HLSA has invited WFPS to host the fall meeting as part of their fall gala. Immediate Past Chair Nancy Almanzan is working with HLSA to confirm the meeting.

## MONTANA -

Dick Smith reported that Montana is having an issue with archiving survey documents. As this seems to be an issue with several states, the Board discussed development of a resolution.

**Action Item:** Resolution regarding hard copy vs digital maps.

**NEVADA** - NALS has voted to donate \$2000 to the WFPS Scholarship & Relief Fund through the NSPS Foundation.

**NEW MEXICO** - PNM Resource Foundation has donated \$200,000 to the NMPS/NMSU endowment fund to maintain the survey program at NMSU.

The New Mexico state-specific exam is now a mailed exam instead of proctored.

**OREGON** - PLSO is going through a rebranding process. A new logo has been developed. One of the goals in the rebranding is to increase participation from public employees.

PLSO participated in Design Professional Day which was a state lobby day event.

The scholarship auction at the conference raised \$29,000. The raffle of commemorative rifle was very successful.

There is a move to dismantle QBS in Oregon. PLSO and ACEC is holding a joint meeting to discuss legislation. A resolution from WFPS on the importance of QBS would be helpful.

**Action Item:** Resolution regarding the importance of QBS.

**Action Items:** Ben Petersen to revise the article he provided to PLSO to be more general for all state associations. Dick Smith to update the white paper on benefits of WFPS to incorporate the article written by Ben Petersen.

**UTAH** - UCLS is working in conjunction with the County Reorders to amend legislation that was introduced by a private land surveyor outside of UCLS.

UCLS has established an Education Foundation which has been named after longtime educator Walt Cunningham.

The Surveys Historical Society Rendezvous will be held in Salt Lake City in 2019.





**WASHINGTON** - LSAW may be interested in a joint conference with WFPS in 2020.

Renton Technical College is working to put their second-year program online.

Prevailing wage is still a concern in Washington. The Governor is reviewing a bill that adopts CBA wages as the prevailing wages.

LSAW is in the process of amending their bylaws and working to get an exemption for surveyors regarding "Call Before You Dig" law.

Washington Department of Licensing is proposing an administrative code change that will require licensee to attest they have read the administrative code when they renew their license.

**CONFERENCE**

The 2018 Western Regional Survey Conference sponsored by APLS, NALS, UCLS, and WFPS was a great success. There were over 800 in attendance and 35 exhibitors.

**SCHOLARSHIP:**

The scholarship application and scholarship rules have been amended. Motion carried to approve changes to scholarship rules and application.

**WFPS areas of focus:**

**Developing and Maintaining Programs to Promote the Profession**

WFPS is committed to promoting the land surveying profession. To that end, WFPS is currently developing the following programs:

- **Youth Outreach – Land Surveying as a Career**
  - ✓ WFPS has budgeted funds to develop an after school/community program. The program will include 10 hours of curriculum that can be used by state associations and their chapters to promote land surveying as a career. The initial outline of the program is complete. If you are interested in serving on the committee that is developing this program, please contact the WFPS Executive Office.
- **STEM Outreach Flyer**
  - ✓ WFPS has developed a flyer to promote the land surveying profession as part of STEM education.

- ✓ WFPS state associations may contact the WFPS Executive Office to have the flyer customized with your association logo.

**Providing Resources to Benefit State Associations**

WFPS is dedicated to providing resources to state associations. Following are a few of the resources currently being developed:

1. **Speakers Bureau**
2. **Quarterly Book Reviews**
3. **Webinars**

**Serving as a Regional Voice**

WFPS has updated resolution 2005-01 which supports having a board of registration for land surveyors in each state. The Executive Committee reviewed the resolution and suggested minor modifications to strengthen the resolution. At the April 2018 Board of Directors meeting, the Board adopted Resolution 2018-01 to supersede resolution 2005-01. The final resolution, as adopted, is available on the WFPS website and will be sent to each State Association.

**WFPS Relief and Scholarship Fund**

The Executive Committee has worked with the NSPS Education Foundation to develop an MOU that will create a charitable fund for WFPS for relief efforts and scholarships. The fund will allow WFPS to solicit charitable donations and will provide higher interest rates. Motion carried to approve the WFPS/NSPS MOU.

**About WFPS - PowerPoint**

Get to know WFPS and how we serve the 13 western state surveying association. Visit the WFPS website, click "About WFPS" and download the WFPS PowerPoint.



## About WFPS

The Western Federation of Professional Surveyors (WFPS) was formed in 1979. The Board of Directors includes two delegates from each of the 13 western states. WFPS serves as a regional voice for Land Surveyors and meets quarterly to discuss practice issues affecting western state surveyors. For more information about WFPS and the state associations, visit [WFPS.org](http://WFPS.org)

**WFPS Executive Office**  
**T. (707) 578-1130 F. (707) 578-4406**  
**[admin@wfps.org](mailto:admin@wfps.org)**



# Torn from the Pages

## Engineers' Week

SURVEYING IS VITAL

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#### Studies Feared

Dean Blodgett emphasized the responsibility of the practicing engineer to inspire and encourage young people to accept a career in engineering. The theme and activities of Engineers' Week were designed by engineers to help encourage young people to enter the engineering fields.

National Engineers' Week has been sponsored by the National Society of Professional Engineers annually for the past 13 years. The week is always celebrated during the week of the birthday of George Washington, often considered one of the nation's first engineers.

The national society, with headquarters in Washington, D. C., has a total membership of approximately 53,000 members, all of whom are professional engineers licensed under the laws of the states and territories. The national society is composed of the various state societies, including the Nevada Society of Professional Engineers.

The Nevada Society of Professional Engineers, with chapters in Las Vegas, Ely, Carson City and Reno, has been active for a number of years in legislative, educational and public relations activities affecting the professional engineer.

Membership in the Nevada Society now stands at over 160. The organization is headed this year by John Webster Brown, Reno consulting civil and structural engineer.



John Brooke and Eugene Longfield of Longfield Engineers, a Reno engineering and surveying firm, demonstrate modern surveying practices. Brooke uses a special portable radio to maintain contact with other members of the survey party while Longfield uses a Wilde T-2 theodolite, high precision surveying instrument. The T-2 is internally lighted for night work and is accurate to one second of arc. Sights of 15 to 20 miles are normal for precise triangulation surveys with the T-2.

### HARD ROCK ENGINEERING



ts Will Help



# The Future of Surveying

by Carl C. de Baca, PLS

*This is a hypothetical situation – I want to make that perfectly clear. Any resemblance to actual people, places or projects is purely coincidental. I don't need a lawsuit, disciplinary action or to retain an attorney for simply projecting current trends into the near future. I am hoping that this little thought exercise will open some eyes, that's all.*

The time: 2020. The place: Reno, Nevada. A routine cease-and-desist letter prepared by a licensing board kicks off a lawsuit, affirms a recent Supreme Court decision and ends professional land surveying as we know it.

The facts are these:

Chet, a longtime hobbyist control-line and remote-control model airplane pilot purchases his latest toy, a DJI Mavic Air drone which comes complete with onboard GPS and Glonass and a gimbal-mounted 12-megapixel camera. In the process of mastering his new toy, Chet starts dabbling in aerial photography too. While doing some research on-line he discovers that shareware is available which would allow him to produce surface topography and ortho-rectified imagery easily. Chet is an assayer by trade and has an above average intellect. He finds that using the free mapping software is no challenge and soon he is making contours maps, 3-D viewsheds and color orthophotos. He spends another thousand bucks and buys a large format plotter and starts making poster-sized aerial maps for his friends.

Through connections in the mining industry of Northern Nevada, Chet ends up with an opportunity to fly and map an exploration project comprised of some challenging terrain in central Nevada and make some money doing it. The mapping he produces is first-rate in terms of appearance and the turn-around time was very pleasing to the mining company that hired Chet. Accuracy of the mapping was of course indeterminate since it had occurred to no one that ground control should have been set, and field-checks should have been performed. Chet knew nothing about such things and the folks at the mining company didn't either. All they know is that they got the mapping quickly and cheaply, and it appears to be on state plane coordinates since it correctly overlays GIS data that the mine has accumulated.

Soon the mining company needed more mapping at a different location – an active mine undergoing expansion and requiring a variety of construction projects. The mine employs a consultant/contractor acting as third-party surveyor. The mine's boilerplate contract language indicates that a Nevada licensed land surveyor must verify all excavation and fill volumes for payment to earthwork contractors. This consulting firm employed a Nevada PLS – let's call him Jones, to do this work. Typically, Jones performs an initial, or 'original ground' survey before earthmoving begins.

Unbeknownst to Jones, the mine has hired Chet to fly a large area, including the upcoming project site, prior to construction. Chet's mapping is provided to Jones as the 'original ground surface' and he is required, as is the contractor, to affirm that the surface is correct and will be the one used for all subsequent

volumetric computations. The earthwork contractor readily agrees and signs a letter saying so. Jones is hesitant. This isn't his first rodeo and since the provenance of the mapping is unknown to him, he holds out to perform field-checks of the topo. Jones decides to collect 4 hours of RTK data across the site in all the different types of terrain and insert this data into the mine-provided topo file. He can extract cut/fill data on each of his points and by this method he can get a feel for the overall mapping accuracy. If a uniform factor has to be applied to make the mapping match field data better, he will know about it up front and can make recommendations.

Jones performs his survey and inserts his data into the topo. The results are telling. The east side of the site is high from 0.5 feet to as much as 1.8 feet. The west side is correspondingly low by a similar amount. Points on steep gradients seem to vary greatly from flatter areas nearby. His overall conclusion is that the mapping is not suitable for volumetric purposes. No uniform factor can be applied to bring the mapping closer to the truth. Jones calls the mine's project manager and says as much. The PM, a mining engineer with no surveying experience and a brutal construction deadline looming, takes the message in, immediately rejects it and instructs Jones to use the surface anyway. Jones argues that he will not willingly use his stamp on any volumes computed from this topo base data. He insists that he perform his own topo survey before the project kicks off. The PM is having none of it and Jones and his firm are relieved of the project. (Sadly, the mine has no trouble finding a more compliant and cooperative survey consultant to replace Jones and his firm.)

Jones, by now having found out the source of the questionable topo, decides to report Chet and his unlicensed work to the Nevada Board of Professional Engineers and Land Surveyors (BPELS). He packages up the topo, his checks, his conclusion, his correspondence with the mine and files a formal complaint.

The BPELS accepts the complaint and empanels a group of local area surveyors to review the facts. They conclude a violation of Nevada Revised Statutes 625.040 (d) and (f) has indeed occurred.

## **NRS 625.040 "Practice of land surveying" defined.**

1. A person who, in a private or public capacity, does or offers to do any one or more of the following practices land surveying:

d) Determines the configuration or contour of the earth's surface or the position of fixed objects thereon by measuring lines and angles and applying the principles of trigonometry.

(f) *Municipal and topographic surveying.*

The panel delivers its report to the BPELS Compliance Officer, who in turn reports to the BPELS. At their next meeting the BPELS votes to write a 'Cease and Desist' letter to Chet, who immediately secures the assistance of a friend in Reno who happens to be a practicing attorney, let's call him Jack. Jack is a run-of-the-mill ambulance chaser but he does keep up with legal precedent and is well aware of the 2015 U.S. Supreme court case 13-534 in which the Federal Trade Commission sued the North Carolina Board of Dental Examiners for trying to prevent an individual from offering teeth-whitening services by asserting that teeth-whitening is part of practicing dentistry and therefore falls under the board's purview. The 6-3 Supreme Court decision hinged upon a technicality: that a board made up of active practitioners is

CONTINUED ON NEXT PAGE ►

## The Future of Surveying... continued from previous page

inherently susceptible to restricting free trade and therefore is not granted immunity from antitrust action. The FTC suit was upheld.

Jack looked at his friend and client's cease and desist letter and saw clear parallels. In his estimation a market was being unfairly closed to his client. He and Chet decide to counter the Nevada BPELS on the grounds that they are restricting free trade. Jack makes contact with the Federal Trade Commission and finds a sympathetic ear from the get-go. The FTC contacts the NV BPELS and threatens to sue if they don't rescind their letter to Chet. The BPELS declines to back down and the FTC files a lawsuit indicating that their attempt to prevent Chet from providing mapping services is an unfair restriction of free trade – in effect a violation of the Sherman Antitrust Act. And unfortunately for the BPELS, precedent has already been set via the aforementioned U.S. Supreme Court case.

In the aftermath of this legal kerfuffle, the NV BPELS finds itself no longer able to effectively prevent unlicensed purveyors of mapping services. Nevada contractors, sensing an opportunity, start asserting that grade-setters with GPS and machine-control technology are similarly immune from regulation. Surveyors from out of state no longer feel bound to apply for licensure to perform certain kinds of work within Nevada, since any attempt to rein them in would be a restriction of free trade. GIS firms with no licensees start offering what can only be called 'geodetic' services. Like a snowball rolling down a mountainside, the greater Surveying Marketplace becomes crowded with diverse entrepreneurs who produce great facsimiles of traditional survey work products, faster and cheaper than we do. This is great for the market and the consumer, as long as quality of the product is not looked at too directly.

In the time before this took place, and the year and a half between Jones' complaint and the FTC legal victory, NCEES, NALS, WFPS and NSPS all had their attention focused on workforce development and license mobility, not perceiving that a much more fundamental threat to the very essence of licensure was underway. After the NV BPELS – FTC lawsuit, the value of having a professional license in the west was greatly diminished because the needs of the marketplace became paramount, at least in the eyes of politicians and bureaucrats and the hacks we call journalists these days. Any attempts at mounting an effective defense of regulation boards, centered on protecting the public from unlicensed and unqualified practitioners, was muted, at best. The term 'missed opportunity' does not adequately convey the disaster that ensued once the BPELS lost its ability to regulate the practice of Land Surveying.

*Fortunately, this scenario has not played out yet – really it's just the product of the author's overactive imagination; dreams brought on by eating Indian food too late one evening and the restless sleep that took place afterward. But the whole thing is plausible to the point of being almost inevitable and all of the surveying facts cited have taken place in Nevada dozens of times in recent years with respect to mining and construction projects. There are plenty of 'Chets' out there, but for whatever reason we don't tend to report their unlicensed activities like we should. So far there hasn't been a 'Jones' sufficiently concerned to file such a complaint, (that I have heard of anyway). I have to believe that 'Jacks' are lining up around the block for opportunities like the one described herein.*

**Don't say you weren't warned.**



## John Roy Brooke... continued from page 32



consideration for the next surveyor to follow.

For a while, John wrote a portion of the state portion of the PLS test and taught surveying at UNR. He didn't just hand out grades but held his students to an elevated level. I've heard that CE students cringed at having to go through his surveying class, and I think that's a good thing.

Later, John was always interested in hearing about our current projects and keeping up with what was going on in surveying but when things were presented that had no definitive answer, he would laugh and say, "it's your problem now"! During the later years, when we would sit around with other surveyors having "intellectual" conversations, they would always take a turn for the humorous. John was a great intellectual, but he was also a lot of fun to be around.

John was married early to his high school sweetheart, my aunt Donna, who passed away a few years ago. They grew old together with a degree of love that can only be witnessed, not described. Together now, they were both among my favorite people. John imbued in me an integrity for this profession for which I will forever be in his debt. But, most importantly, he will be remembered for the all the love he has shown to all the people he crossed paths with over the years.

**-Jeff Brooke, nephew**



## James "Jim" Dorsey... continued from page 33

His land surveying career lasted over 50 years and most of it was in boundary, especially wetlands and title matters. He authored "Insuring Wetlands" and was a coauthor of "A Study of Title Problems on Swamp and Overflowed Lands". He presented papers and lectured on many subjects including boundary, legal descriptions, right-of-way, title issues and was involved with CLSA and ASCE. He served as an Expert Witness on many cases, Expert Examiner with the Professional Practices Exam Committee on Land Surveying and Chairman of the Land Survey Committee for NCEES, Land Surveyor member on California State Board of Registration for Professional Engineers and Land Surveyors and the first Land Surveyor to serve as President of that Board. He taught Legal Aspects of Land Surveying and the Fundamentals of Land Surveying for the Surveying Degree program at CCSN, served a turn as Chairman of WESTFED and was a long-time member of NALS. In 2004 he was awarded NALS Surveyor of the Year and was awarded Life Member of NALS this year.

One of the things I'll always remember about Jim is that whenever he could, he brought his lovely bride, Elsie along with him wherever he went. What a special love they had for each other! At his celebration of life service, I was very moved by the words of his eldest son, who said so many good things about his dad - how amazing his dad was at so many things but as good as he was as a person, a friend and land surveyor he was best at being a dad. I'll miss him. His sons can feel proud: their dad was every one of those things and more. -Jerry Jaurez





## ADVERTISER INDEX for this Issue

<u>Advertiser</u>	<u>Page No.</u>
Berntsen International .....	20
Carlson.....	20
Monsen Engineering Supply.....	Inside Front Cover
Office Depot.....	Inside Rear Cover
Summit Engineering Corporation.....	25
Surv-Kap.....	21
Vertical Mapping Resources .....	8
Wood Rodgers .....	21
Nevada Transit & Laser .....	Outside Back Cover

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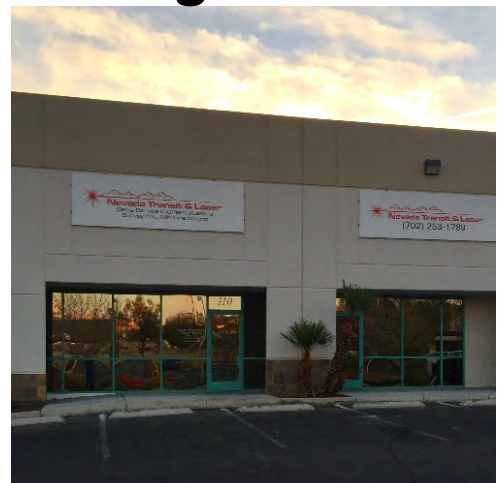


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