



Well Said

FALL 2017 • Newsletter of Arizona Water Well Association for our Members and Friends

The AzWWA Member Appreciation Meeting

Visit this amazing museum for free as a Thank You for supporting the Arizona Water Well Association!

The tour will be at the end of the business meeting.

Saturday, October 14, 2017
International Wildlife Museum
4800 W. Gates Pass Rd.
Tucson, AZ 85745

Agenda

8:30am Meet & Greet
9am Speaker—Norm Howard, Cotey Chemical
'Water Well Disinfection'

Business meeting will follow the speaker presentation

Any questions, email admin@azwwa.org or call 480-609-3999

REGISTRATION

Name: _____
Company Name _____
Address: _____
City: _____ State: _____ Zip: _____ Phone: _____
Email: _____

Number of people attending : _____

_____ Fax registration to 480-609-3939 or mail to:
950 E. Baseline Rd. #104-1025, Tempe, AZ 85283

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480-352-2041

Executive Administrator

Debbie Hanson Tripp....480-609-3999
950 E. Baseline Rd. #104-1025
Tempe, AZ 85283
Fax: 480-609-3939
Email: admin@azwwa.org

GOT NEWS?

Any upcoming or recent events?

Open Houses? Other Events?

Jobsite Photos? Other Photos?

Articles?

New Products or Services?

Something for sale?

Weddings? Births? Obituaries?

Contact Debbie Hanson Tripp at 480-609-3999 or via
Email admin@azwwa.org

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Arizona Water Well Association Scholarship Criteria



The **AZWWA** offers educational scholarships in the amount of \$1,000 per semester for the children and/or grandchildren of contractors who have been members of our Association for a minimum of 2 years or employees of said contractor who has a reasonable relationship with the Association.

Other qualifications of the applicant are:

- Has the support of his/her family. If the applicant is a child or grandchild of an employee of a contractor, the owner/manager must also support the applicant.
- Acceptance by aforementioned Arizona institution. The Committee will take into consideration any requests or attendance at schools outside of Arizona.
- Full time enrollment. The Committee will take into consideration requests for less than a full schedule.
- Maintain a 2.5 grade point average.

The above qualifications are in reference to university or junior college enrollment. However, the Committee will consider requests for trade school or other participation at reduced levels of financial support if such education is deemed beneficial to the family's business effort.

A completed Scholarship Application, including a resume, a letter of endorsement from the applicant's parents or employer and a transcript from the last educational institution attended is required.

The sum will be paid upon applicant's submittal of proof of registration at an Arizona institution.

For more information or questions, please contact our current Scholarship Chair or the AZWWA office. To request a Scholarship Application, please contact the AZWWA Administrative office directly.

Scholarship Chair
Fred Tregaskes
ftregaskes1@gmail.com
PH: 480-404-2788

AZWWA Office
Debbie Hanson Tripp
admin@azwwa.org
PH: 480-609-3999

AZWWA Summer Membership Meeting & Picnic Goldwater Lake, Prescott June 16, 2017

Once again, we had a great turnout for our Summer Meeting and Friday night Steak Fry at Goldwater Lake! It was great having Jesse Richardson, Jr., Policy and Research Advisor for the Water Systems Council, back as our Guest Speaker and as always, he gave a very information talk about what was happening in our area and other parts of the U.S. that might – or will – affect our industry.

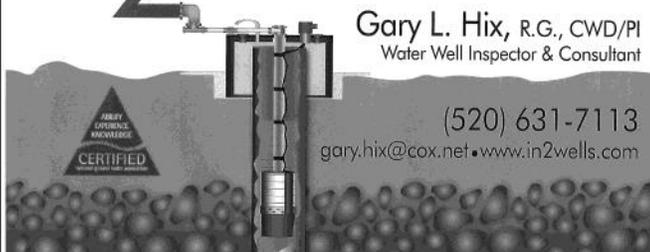
Bob Way, the Legislative committee chairman reported the association will need to hire a lobbyist to help with continuing education at the legislature next year. Jason Burrigh, with Tanner Well Service, was unanimously approved as the new secretary/treasurer. Also, it was approved to donate \$1,000 to the University of Arizona to assist with the printing of their updated publication, Water Wells in Arizona.



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How a California Groundwater Case Could Affect Nevada and the West

Reprinted from the Nevada Independent; Article by: Daniel Rothberg

Submitted by Jesse Richardson, Jr., Water Systems Council

In early August, 10 states urged the Supreme Court to hear a low-profile case that started in California's Coachella Valley but could have significant ramifications for water management in Nevada and the West. Writing for the states, Attorney General Adam Laxalt described a lower court's decision as "literally a watershed opinion washing away the authority and control that states have traditionally exercised over groundwater resources."

The case looks to clarify what rights Native American tribes have to groundwater on reservations. In 1908, the Supreme Court said tribes possessed a federal right to surface water, but lower courts have since clashed over whether or not those rights extend to groundwater.

Groundwater is a vital part of the West's water supply, but many basins throughout the region are pumped at unsustainable rates. More water is taken out than can be replenished. This is true in Nevada, where in some instances, total rights to water on paper exceed the annual supply.

For nearly 100 years, courts have differed and danced around the issue of whether reservation rights include groundwater. But in March, the Ninth Circuit Court of Appeals gave a definitive answer in the affirmative, extending groundwater rights to a California tribe in the Coachella Valley around Palm Springs. The three-judge panel said the federal government, in establishing reservations, had impliedly earmarked groundwater for tribal use. The court took the additional step of explicitly saying a tribe's federal groundwater rights preempt state law.

Tribes applauded the Ninth Circuit ruling in *Agua Caliente Band of Cahuilla Indians vs. Coachella Valley Water District, et. al.* And several attorneys who work on Native American resource issues said they expected to see a maelstrom of litigation as tribes act on the ruling.

But the decision left many questions unanswered, and that uncertainty worries arid states where water is scarce. Where do the states' water laws fit into the Ninth Circuit's decision? That is the central question in the amicus brief from Laxalt on behalf of attorneys general in Arizona, Arkansas, Idaho, Nebraska, North Dakota, South Dakota, Texas, Wisconsin and Wyoming.

Authority over water traditionally belongs to the states. They decide how water is regulated and allocated. States are concerned that losing any control over management could further endanger aquifers that provide drinking water and often support ranching, mining and farming operations.

New claims to unaccounted groundwater rights — rights that would preempt state law — could disrupt an already strained system, they argue. And the recent ruling might indirectly affect water rights on federal land that's been reserved for national parks or military bases. Some have even argued it could affect the Southern Nevada Water Authority's proposed pipeline project.

The case history

– May 2013: A Palm Springs-based tribe, the Agua Caliente Band of Cahuilla Indians, sues two California water agencies to assert a priority right to groundwater. The tribe, with more than 400 members and 31,000 acres, criticizes how the public agencies have managed the aquifer and said they want to play a greater role in its governance. The two agencies publicly question its motives, suggesting there might be a financial incentive.

- June 2014: The U.S. government joins the case and argues that the tribe's priority rights — under what is known as the "reserved rights doctrine" — extend to groundwater.
- March 2015: A district court judge rules that reserved rights include groundwater.
- March 2017: The Ninth Circuit upholds the ruling.
- July 2017: The agencies appeal to the Supreme Court.
- August 2017: Nevada, with nine states, files a brief urging the Court to hear the case.

About the reserved rights doctrine

The basis for federal water rights stem from a 1908 Supreme Court case, *Winters v. United States*. In the *Winters* case, the

(Continued on page 6)

court ruled that through establishing an Indian reservation, the federal government had impliedly allocated enough water necessary to fulfill the reservation's purpose. In a 1963 Supreme Court case, these rights were applied to all public lands, including national monuments and wildlife refuges. The court has refined the doctrine since then, but it has never conclusively answered the question of whether reserved rights include groundwater.

The Supreme Court hasn't entirely avoided the issue. In a 1975 case involving the Death Valley National Monument, the court said that the U.S. government could protect groundwater on federal land from over-pumping. (In the case, pumping threatened the pupfish at Devils Hole.)

The Ninth Circuit cited the case in its March opinion: "If the United States can protect against groundwater diversions, it follows that the government can protect the groundwater itself."

There were three significant findings in the appellate decision:

- 1) Tribes have a federal reserved right to groundwater on their land.
- 2) As federal water rights, they preempt conflicting state law.
- 3) The rights are not lost even if they haven't been used in the past.

What that means is up for interpretation. "It's not clear what that would mean, for state law to be preempted," said Leon Szeptycki, an attorney who leads a water policy group at Stanford's Woods Institute for the Environment.

The potential impact on Nevada and other states

Laxalt writes of "potentially devastating consequences" if the Supreme Court decides to let the Ninth Circuit decision stand. Giving preemption to federal rights could disrupt the state's ability to manage water and impact economies that have relied on groundwater for years, he argues.

Since almost all of Nevada's groundwater is allocated or over-allocated, he argues that the "longstanding and settled appropriation regime will be disrupted by new, unaccounted-for federal reserved groundwater rights claims that are suddenly asserted for the first time." The result is that the new claims could push out people who have already built communities or businesses around their water rights. "Existing groundwater users may lose their established right to use that water, or be subject to curtailment in the inevitable times of scarcity," he wrote.

Given that 85 percent of Nevada land is owned by the federal government, Laxalt said that the state includes a large portion of land where possible claims could be made. When the case was pending before the Ninth Circuit, two Nevada tribes signed onto a brief supporting the Agua Caliente tribe. The Agua Caliente case was also cited during a recent hearing on the water authority's proposed pipeline, which would convey billions of gallons of groundwater to Las Vegas.

A lawyer for the Confederated Tribes of the Goshute Reservation raised the Ninth Circuit ruling during a hearing on the 263-mile pipeline project that has been held up by several legal actions. Tribes could assert reserved rights in areas where SNWA would want to pump groundwater.

"There is a potential that it could apply to the pipeline project as well," said Howard Watts, a spokesman for Great Basin Water Network, which is leading the legal fight against the project.

Nevada's opposition to the Ninth Circuit ruling taps into a larger debate about the role that the federal government should play in managing land. When the attorney general announced the amicus brief, he framed it as "challenging federal overreach on groundwater rights."

In a press release, Laxalt said he was taking "necessary steps to clarify states' groundwater rights and ensure Nevada's best interests are being protected from unnecessary and unwarranted federal interference." Throughout the brief, Laxalt argued that favoring federal water rights would also undermine the state's ability to make its own choices. The ruling, Laxalt wrote, "has left the states with great uncertainty in an area of paramount sovereign importance."

Is the Supreme Court likely to hear it?

That depends on who you ask. Lawyers in the "yes" camp say that the Ninth Circuit decision has national implications and would settle a topic that has led to conflicting outcomes. In the past, state courts have reached differing conclusions on how these rights fit in with state water law. Wyoming's Supreme Court said tribes did not have a federal groundwater right. In a later case, the Arizona Supreme Court said there was a right, just within the framework of state law.

Others are skeptical. Monte Mills, an assistant professor at the University of Montana's Indian Law Clinic, said he thinks the Supreme Court will be reluctant to hear the case until the lower courts decide how much groundwater should be allocated to the Agua Caliente tribe. Supporters and opponents agree on one thing: if the Ninth Circuit opinion stands, a flood of litigation is coming.



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Drilling Team Rescues Two During Flood

Reprinted from Kingman Daily Miner (kdminer.com)

Story by Aaron Ricca

Amanda Kaufman contributed to this report



The Brown Drilling crew with the truck used for an impromptu swift-water rescue. From left to right, Jon Kaufman, Bill Lott, Derek Pendrod and Rafe Beacom. AMANDA KAUFMAN/Courtesy



The Ford Bronco after floodwaters receded. Photo courtesy of Mohave County Sheriff's Office

KINGMAN – A rained-out workday turned into a spontaneous swift-water rescue for a local well-drilling crew. July monsoons had already claimed at least 10 lives in Arizona, and thanks to four men from Brown Drilling, two people trying to brave a wash missed being added to the tally.

Co-owner Jon Kaufman and drillers Rafe Beacom, Bill Lott and Derek Penrod took time out of a 15-hour workday to describe via phone interview the rescue of a man and woman stuck in raging floodwaters atop of a Ford Bronco in a wash near Blake Ranch and North Stephan roads.

The downpour had forced Kaufman and crew to call it a day. When driving back from a refuel and coffee stop at the Petro gas station on Interstate 40 east of Kingman, they stumbled on the couple literally standing on the top of a full-sized and lifted 80s model Ford Bronco submerged by the flood. The crew knew they had to do something, were aware of the risks, but had no second thoughts about attempting a rescue. “I didn’t want us to become someone who also needed rescue,” he said. “But we needed to help them right then.”

Before they reached the flooded wash, Beacom and Penrod rushed to the hood of their International 4800 work truck. Lott was handed a cellphone and began shooting video of the rescue while Kaufman took the helm, edging closer to the water.

A YouTube video has been shared on Facebook and picked up by broadcast media in Phoenix. In the video, the couple on the Bronco have a ladder, and they pass it to Penrod, (red flannel) and Beacom (white T-shirt). Concerned that the strength of the ladder was too weak fully extended, Kaufman edges the truck, already

(Continued on page 9)

submerged in about three feet of water, to about six feet from the Bronco. A few inches closer and the drilling crew would be in need of rescue themselves. A little more than four minutes into the video, the couple slowly makes their way safely across the rickety ladder to the hood of the crew's truck. Kaufman and crew then back their truck away from the wash to safety.

Penrod identified the rescued man as Lance Gesser, an old acquaintance. The woman's identity was unknown. They haven't reached out to the crew since the rescue.

Mohave County Sheriff's spokeswoman Trish Carter said MCSO Search and Rescue was called and an Arizona Department of Public Safety Ranger helicopter was enroute, but called off the response when they learned of the drilling crew's rescue.

The drilling crew excitedly described what was racing through their minds that day. "The only thing I could think about was getting them off that truck," Penrod said. "We had a bit of trouble with some bungee cords (also used in the rescue) but once we got it under control, it went pretty smooth."

There were some tense moments between Penrod and Beacom when the ladder looked like it would collapse. "Both of our minds were figuring out how to get (the couple) onto our truck and do it quickly," Beacom said. "It was always in our minds, but we made it work." Lott was ready himself to join Beacom and Penrod, but there was no more room on their truck's bumper. "I was ready to jump out if need be," he said. "I'm the old guy, so they handed me the camera. We just needed to help those people."

Kaufman calmly exercised years of off-road driving experience, and his crewmates, to navigate toward the Bronco. "Rafe and Derek were on the front bumper and guided me in," Kaufman said. Penrod got a kick out of the excitement. "I think it should be on someone's bucket list," Penrod added. "It's a great feeling rescuing someone."

Amanda Kaufman, Brown Drilling co-owner and Jon's sister, brought the story to the Daily Miner's attention. It took a few days to facilitate a phone interview due to the crews extensive work schedule and remote drilling locations. Amanda will put her crew through swift water awareness training. They'll also put rescue equipment in company work trucks for any future events. "They might end up needing it themselves," Kaufman said of the company's work in desolate areas. "We're in the middle of nowhere most of the time. Mother Nature brings us strange things."

To watch the video of the actual rescue, go to the following link:
<http://m.kdminer.com/news/2017/jul/30/drilling-team-rescues-two-during-flood/>



Nevada Attorney General Joins Coalition to Defend Water Rights

By Sean Whaley Review-Journal Capital Bureau

Nevada Attorney General, Adam Paul Laxalt, is taking the lead for a 10-state coalition of Attorney Generals in filing a court brief defending state governments' ability to regulate groundwater usage.

The friend of the court brief was filed with the U.S. Supreme Court, asking it to review a 9th Circuit decision that Laxalt said threatens disruption to settled expectations to states nationwide.

The 9th Circuit ruling concluded, in conflict with multiple state-court decisions, that the federal government has broadly reserved rights to groundwater that preempt long-established state-law regulations, Laxalt said in a statement.

"By filing this brief, my office encourages the Supreme Court to take the necessary steps to clarify the states' groundwater rights and to ensure Nevada's best interests are being protected from unnecessary and unwarranted federal interference," Laxalt said.

The brief, in support of writs filed by two Southern California water agencies, asks the Supreme Court to clarify whether the federal reserved water right doctrine extends to groundwater and, if so, under what circumstances, so as to guide all states on managing groundwater resources.

The ruling at issue involves a dispute arising in the Coachella Valley in Southern California.

A Native American tribe sued in federal court claiming that, as part of its federal reservation of land, it has a priority right to use groundwater in the valley. Relying on Supreme Court cases involving implied reservations of surface water rights, the 9th Circuit Court of Appeals held that a priority right to use groundwater under federal reserved land is included as an implied right with the reservation, and that that right necessarily pre-empts state water law.

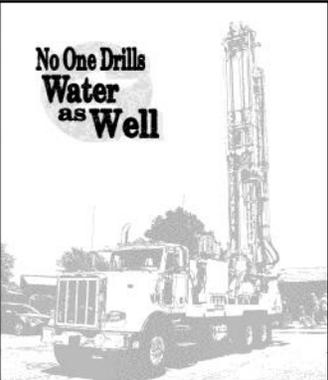
Arizona, Arkansas, Idaho, Nebraska, North Dakota, South Dakota, Texas, Wisconsin and Wyoming joined Nevada in filing the brief.

NOTE: Jesse Richardson's comment:

"This is a big one. The first groundwater case under the federal reserved water rights doctrine."

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Submitted by Mike Ball, ADWR

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Richard "Rick" Rogers, QP
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Ft. Collins, CO 80524
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Longmire Well Service, Inc.
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Willcox, AZ 85644
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866* (issued 4/18/2017)

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871* (issued 8/24/17)

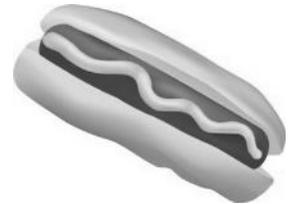
Hoover Drilling Co., LLC,
Tommy Hoover
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Another Great Chili Cook Off and Horseshoe Tournament



The winning chili was provided by Justin Lewis with Bill Johnson Equipment Co.

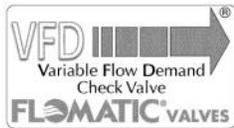
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(Continued on page 17)

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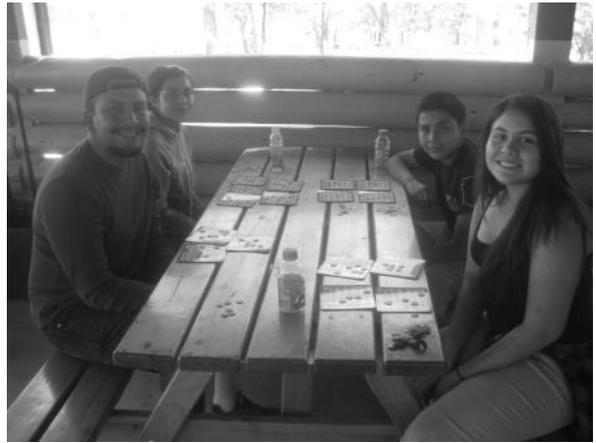
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Availability, Price of Silica Sand Challenges Water Well Contractors in the Southwest

By Mike Price

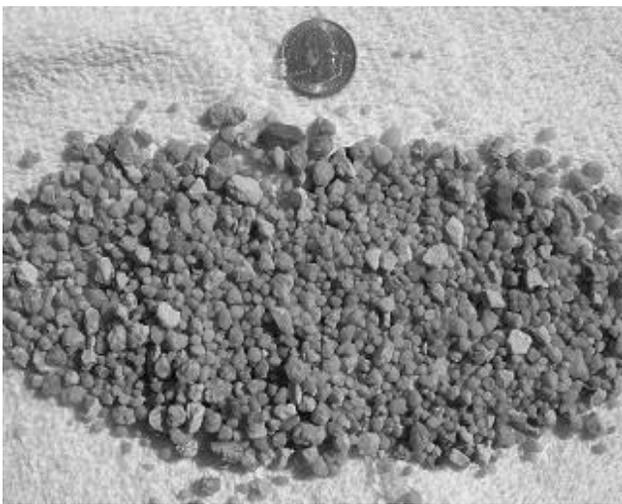
Reprinted from the *Water Well Journal*, a publication of NGWA

A wide range of quality exists from available sand sources used for water well filter packs in the United States. In the Southwest, there is a noticeable difference from the top-quality sand to the next one down.

The reliability of quality silica sand has been in decline in recent years in the Southwest, according to Marvin Glotfelty, RG, principal hydrogeologist for Clear Creek Associates LLC in Scottsdale, Arizona.

There are sometimes significant delays (more than a month in some instances) in getting material delivered to the well site, and the quality assurance of the material has been poor in some cases.

For many years, the top-quality source has been relied upon for installing large public-supply wells or industrial-use wells in the Southwest. The lower-quality sands are used more frequently in agricultural wells or other less-critical wells.



The photo at the left, provided by Glotfelty, who was the 2012 NGWA Foundation McElhiney Lecturer, shows top-quality material that has been occasionally delivered with inclusions of angular shale and dark minerals.

“I believe this is a reflection of the limited supply of the high-quality material,” he said.

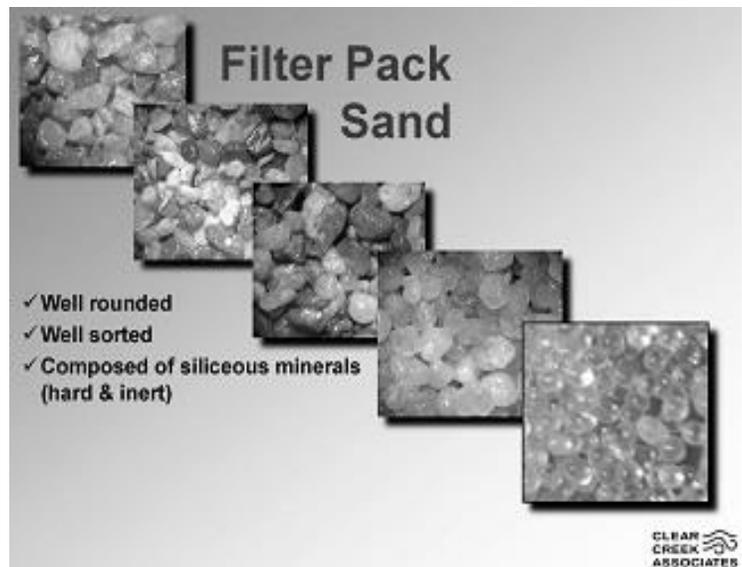
“As time goes on, we will have to either use more expensive options like the imported glass beads, or we will have to adjust our standards to accept poorer filter pack material. That second option will also cost us in the long run.”

The abovementioned glass beads, pictured in the bottom photo in the image at the right*, are manufactured in Germany and can be 10 times as much as silica sand.

This is not a viable option for most contractors

Rather, most contractors work with their sand supplier to forecast which jobs are on the horizon and the amount needed to get ahead of the lead time.

Ralph Anderson, Vice President of Arizona Beeman Drilling LLC in Gold Canyon, Arizona, and other contractors say lead times have increased since the oil and gas hydraulic fracturing boom began in the last six to eight years. Sand producers serve both the hydraulic fracturing and water well markets. The hydraulic fracturing market uses finer grades of sand than the water well market. The delay in lead times on the water well side may be due to the allocation of production resources being skewed toward the hydraulic fracturing market.



(Continued on page 23)

(Continued from page 22)

If the sand grade needed for the job isn't available, Anderson will see if the client is satisfied with a larger sand size. Adapting to a larger sand size isn't going to work in the environmental drilling market as monitoring wells require finer sand grades, which is also used in the hydraulic fracturing market.

Anderson also said the price of sand is now \$700 a cubic yard for what used to be \$300 before the boom (shipping cost included).

In the oil and gas drilling hydraulic fracturing market, the Wall Street Journal reports some predict the demand for sand may surpass supply by next year, giving way to a shortage that could last for most of 2018. Tudor, Pickering, Holt & Co. estimates the market will need 120 million tons of sand by next year, more than double the demand in 2014 at the pinnacle of the U.S. drilling boom.

Premier Silica LLC, acquired several years ago by Pioneer Natural Resources Co. and now called Pioneer Sands LLC, mines and processes sand from the Hickory formation in Texas and services numerous markets including the water well and hydraulic fracturing markets. Recent major capital projects at its flagship operation in Brady, Texas, have resulted in an increase in the capacity as well as the quality of its sands. As its overall level of mining activity and sand production increases, the amount of available coarse sand also increases.

Andre Fiedler, Sales Manager for Pioneer Sands, said the Hickory formation has a chemical composition of 99 percent silica. The higher the silica content of a sand, the lower the amount of dissolution of the filter pack potentially occurring during well development or well rehabilitation when an acid is used.

* In the image on the preceding page, also provided by Glotfelty — the second to the bottom photo is a top-quality sand from sources in Colorado and Texas. It is generally a well-rounded, well sorted, siliceous, aeolian (windblown) sand. The other three photos show sand quite a bit more angular, more poorly sorted, and containing more dark minerals (i.e., can be iron, manganese, and potential other constituents).

This article can be viewed with the photos in color at www.ngwa.org



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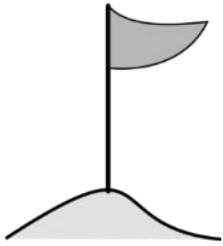
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Arizona Ranchers See Relief from Federal Water Extortion

By Julie Murphree, [Arizona Farm Bureau](#) Outreach Director

Reintroduced in the U.S. House of Representatives earlier this year by Colorado U.S. Representative Scott Tipton, the Water Rights Protection Act could bring U.S. ranchers much-needed relief from ongoing efforts by the federal government to extort privately held water rights from law-abiding citizens. Arizona Farm Bureau supports this important bill that will prevent federal land managers from forcing ranchers to choose between their privately held water rights and maintaining the health of their livestock.

Federal land managers in the West have increasingly demanded that the ranchers who work the land surrender their water rights to the government or leave. The Water Rights Protection Act is designed to prevent this in the future. “I find this practice by the U.S. Forest Service to be somewhat unbelievable and completely shameful,” said Arizona Farm Bureau’s First Vice President and southern Arizona rancher Stefanie Smallhouse. “One can only hope that these actions have been a result of a severe lapse in judgment by folks who forget in which country they live. I’m encouraged by this legislation and Arizona Farm Bureau will be asking our delegation for strong support in getting it passed.”

“It’s time to put a stop to federal strong-arming of ranchers by a government that owns the majority of the land for grazing west of the Mississippi,” added AFBF President Zippy Duvall said. “Water is the most valuable resource for every farmer and rancher. Unfortunately, the federal tactics we’ve seen in recent years have little to do with conservation and everything to do with big government and control.”

For America’s farmers and ranchers to continue to provide the food, fuel and fiber for the nation and the world, they simply must have access to water. This is especially crucial in the West. All citizens have a right to expect that their lawfully acquired water rights will be respected by the federal government.

If passed, the widely-supported Water Rights Protection Act (H.R. 2939) would bar the federal government from seizing state-granted water rights from ranchers and restore basic property rights to them. According to AFBF, the act echoes policy changes President Trump set forth in his executive order on Promoting Agriculture and Rural Prosperity in America, which further supports the protection of ranchers’ water rights. Arizona Congressmen Gosar and Schweikert are both co-sponsors of this bill.

The legislation would also:

- Prohibit agencies from demanding transfer of privately held water rights to the federal government in exchange for federal land use permits or other things;
- Maintain federal deference to state water law; and

Maintain environmental safeguards already in place.

Added Arizona’s Smallhouse, “This issue reaches beyond the ranching community into any arena where the federal government requires permitting for an individual/business or industry to move forward. Everyone should be concerned with this extortion-type tactic.”

Farm Bureau commends Congressman Scott Tipton’s leadership on the legislation, and urges Congress to act swiftly to bring America’s ranchers much-needed relief. The bill was introduced in the house and has been referred to the House Committee on Natural Resources and in addition the Committee on Agriculture.

What is a Crane?

By John Fowler, CSP, AZWWA Safety Director



On June 20th, the Advisory Committee on Construction Safety and Health (ACCSH) and OSHA had a public teleconference to discuss the postponement of the new crane regulations (1926.1400 Subpart CC) which had a scheduled enforcement date of November 10th of this year. OSHA proposed delaying the enforcement date until November 10th, 2018 and, although the date is not final, it will likely be postponed. Updates will be posted on the OSHA website <https://www.osha.gov/cranes-derricks/index.html> or you can contact OSHA with questions by emailing Dean McKenzie, Director, Directorate of Construction at mckenzie.dean@dol.gov.

There has been a lot of discussion about this new regulation and how it is going to effect the water well drilling and pump servicing industry. One of the most common questions is: Does OSHA consider a drill rig or a pump rig a crane? As is often the case with regulations, it is a little complicated, but I will explain why the answer is no to both.

In February of 1982, a two sentence OSHA Standard Interpretation for General Industry (1910) was written concerning the water well drilling industry. It reads “*Water well drilling, oil, and gas well drilling expose employees to similar hazards, therefore, employers engaged in drilling operations shall comply with appropriate General Industry Standards. This is an exception in classifying an industry when using the Standard Industrial Classification (SIC) manual but, is necessary for proper citing of water well drilling alleged violations.*” (2/26/82). If water well drilling is indeed covered by General Industry standards, then obviously the new crane regulations does not apply to water well drilling. However, this Standard Interpretation is not the last word on how to classify the industry and, because of the way it is worded, it might only apply to water well drilling and more specifically to drilling operations. It might not apply to monitor well drilling, for example, or even well rehabilitation. To further add to the uncertainty, in 2014 OSHA issued a Compliance Directive that stated that the drill rig is covered by the Construction Industry standards (I will cover later in the article). The debate about what Industry Standard water well drilling and pump servicing is governed by is for another day because, in my opinion, when looking at the way the regulations are written it is clear that neither a drill rig nor a pump rig should be considered a crane. Regardless of what industry they are considered part of.

To begin with, OSHA lists exclusions to the new crane regulations in 1926.1400(c) and the 11th exclusion is for a “Dedicated drilling rig” (1926.1400(c)(11). This clearly means that a “Dedicated drill rig” is not considered a crane and does not need to comply with the new crane regulations. But, does this exclusion cover the jibs and exploration arms that are used to move tooling and supplies around the drill rig table? Yes. OSHA writes what are called Compliance Directives (CPLs) which instruct OSHA compliance officers on how to interpret and issue citations on the different regulations. In 2014, OSHA issued Compliance Directive (CPL) 02-01-057 which is a directive specifically about the new crane regulations. It is full of good information and is a valuable resource if your operation uses cranes. On page 8 of that CPL OSHA states that “Dedicated drill rigs” are “Explicitly Excluded from Subpart CC”. The CPL goes on to state that the applicable regulation for the entirety of a dedicated drill rig is “1926.600, Motor Vehicles, Mechanized Equipment, and Maritime Operations”. This regulation has a lot of good information to know and understand, but nothing relating to cranes. In OSHA’s eyes a dedicated drill rig is a piece of mechanized equipment and is clearly not a crane.

Unfortunately, the same section of exclusions do not mention pump rigs, but if we look at the way that the OSHA regulations are written I think it is clear that pump rigs are excluded. OSHA defines a crane in 1926.1400(a) as “*power-operated equipment, when used in construction that can hoist, lower and horizontally move a suspended load.* “. This is a broad definition, but it is important to understand that those three criteria are what define a crane: Hoist, lower and horizontally move a load. Does a pump rig “hoist, lower and horizontally move a suspended load”? It can hoist and lower a load, but the equipment is not designed to horizontally move a suspended load. In fact, several pump rig operator manuals specifically forbid horizontal movement. And it is not just OSHA who has a crane definition that clearly excludes pump rigs. The American Society of Mechanical Engineers (ASME) publish recommendations for a variety of activities including crane operation and inspection. OSHA incorporates many ASME recommendations directly into the new crane regulations. The ASME B 30.5 definition of a crane is equipment with a “*rotating superstructure, with a power plant, operating machinery, and boom.... Its function is to lift, lower and swing loads at various radii.*”(B30.5-0.2.1) A pump rig (and for that matter a drill rig) does not have a rotating superstructure or swing loads at various radii and should not be considered a crane.

(Continued on page 37)

Another way to determine if pump rigs should be considered cranes is to look at the requirements to become a certified operator and determine if those requirements are relevant to pumoperator the operator must demonstrate his “Use of, and the ability to calculate (manually or with a calculator), load/capacity information on a variety of configurations of the equipment.” (1926.1427(j)(1)(i)(B)) Pump rigs don’t have the different configurations like cranes do. While some pump rigs do have load rating plates with capacities for different lay backs (distance from the center of the rear outriggers to the center of the well), they don’t have load charts like a crane does. They don’t have load charts for different working areas, different outrigger configurations or different boom angles. The practical or “hands on” test for a certified crane operator is supposed to test an operator’s “Operational and maneuvering skills.” (1926.1427(j)(2)(ii)) Pump rigs hoist loads, but don’t maneuver a load like a mobile crane does when moving a load from one location to another. However, keep in mind that when looking at well servicing operations it is the equipment and not the activity that determines whether or not the operator needs to be certified. For example, if a mobile crane is being used for well servicing in place of a pump rig the operations would most likely be covered by the new crane regulations.

The new crane regulations might at first seem like a burden, but at the end of day the intent is to ensure that crane operators are competent and can calculate capacities. When a crane fails it has the potential to not only injure or kill the operator, but innocent bystanders as well. However, OSHA has clearly exempted “dedicated drill rigs” from the new crane regulations and, as I have explained, pump rigs do not fit the OSHA or ASME definition of a crane. Even though the new regulations do not apply to our drill and, in my opinion, pump rigs it is important to keep in mind that we still need to thoroughly inspect our equipment and that, while operators of drill rigs and pump rigs don’t need to be certified operators, they do need to be well trained.

John is Safety Manager for National EWP and can be reached as follows:



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Thursday, February 8, 2018

7:30 am	Registration Opens
7:30 am – 8:00 am	Continental Breakfast
8:00 am – 9:00 am	<u>Seminar</u>
9:15 am – 10:15 am	<u>Seminar</u>
10:30 am -11:30 am	<u>Seminar</u>
11:30 am – 12:30 pm	Lunch on your own
11:00 am – 3:00 pm	Exhibitor setup
12:30 pm – 1:30 pm	<u>Seminar</u>
1:45 pm – 2:45 pm	<u>Seminar</u>
3:00 pm – 6:00 pm	Hospitality Meet & Greet in Exhibit Hall; Beverages Available
5:30 pm – 6:00 pm	Bidder sign up for Auction
6:00 pm – 8:30 pm (?)	Buck Lively Scholarship Auction/Raffle Food & Beverages Available

Friday, February 9, 2018

7:30 am – 9:00 am	Continental Breakfast
8:00 am – 9:00 am	<u>Seminar</u>
9:15 pm – 10:15 pm	<u>Seminar</u>
9:00 am – 1:00 pm	Exhibit Hall Open
11:30 am – 12:30 pm	Buffet Lunch in Exhibit Area
12:30 pm – 3:30 pm	Exhibit Teardown
12:30 pm – 1:30 pm	<u>Seminar</u>
1:45 pm – 2:45 pm	<u>Seminar</u>
3:00 pm – 4:00 pm	<u>Seminar</u>

Saturday, February 10, 2018

8:30 – 10:00 am	Mountain States Groundwater Board Meeting
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CONTACT US FOR MORE INFORMATION:

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1757 E BASELINE RD #125, GILBERT AZ 85233 •



*Arizona Ag Holding Co & Organitec's
Calcine© Water Treatments:*



MAKING WATER WORK FOR YOU!



Arizona Water Well Association
950 E. Baseline Rd. #104-1025
Tempe, AZ 85283

Events Calendar

October 14, 2017

**AzWWA Membership Meeting
International Wildlife Museum
4800 W. Gates Pass Rd.
Tucson, AZ
8:30am—?**

December 5-7, 2017

**National Ground Water Convention
Nashville, TN For more information go to
<http://groundwaterweek.com/>**

February 8 & 9, 2018

**Mountain State Ground Water Expo
Aquarius Casino Resort
Laughlin, NV
www.mountainstatesgroundwater.com
info@mountainstatesgroundwater.com**