

**RECLAMATION**  
*Managing Water in the West*

Winter 2018

# *Plains Talk*

NEWS FROM THE GREAT PLAINS REGION

## **Inside this Issue:**

**Hurricane Harvey Prep -  
Choke Canyon Dam**

**WYAO Total Solar Eclipse**

**Standing Rock Rural  
Water Project Delivers**



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*Plains Talk* encourages employee submissions, and assists with developing ideas. Questions about stories or photographic essays should be directed to the *Plains Talk* editor, at 406-247-7610.

**Cover: Hurricane Harvey from space. photo credit: NASA.**

**Back cover: New floating ramp at Goose Bay Marina on Canyon Ferry Reservoir, Montana.**

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As data standards are agreed to and passed down, the KBID data will be extracted, edited and imported into AGOL, which will be accessible agency wide.

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GP recognizes Kurt Anderson with the 2017 GP Engineer of the Year Award.

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Flood control benefits were not included in the original project authorization at Choke Canyon Dam and Reservoir, which means there is no allocated flood control pool, as commonly found at many Reclamation reservoirs.

# Standing Rock Rural Water Supply System Delivers Water



(L to R) Operations Superintendent Standing Rock Water Tom Ridley, Steve Willard, DKAO Project Engineer Tom Thompson, DKAO Area Manager Arden Freitag, Councilman Frank White Bull, Councilman Kory McLaughlin, Councilman Charles Walker, Director Standing Rock Water Randy Bailey, Standing Rock Sioux Tribe Chairman Dave Archambault, South Dakota Governor Daugaard's Representative Steve Emery, Bartlett and West Senior Project Manager Doug Mund.

By Patience Hurley, DKAO

The Standing Rock Sioux Tribe, along with the Bureau of Reclamation, completed the Standing Rock Rural Water Supply System pipeline

connecting the North Dakota and South Dakota portions of the project.

“Construction of the Water Treatment Plant, the new water intake near Mobridge, South Dakota, and many miles of



Tom Thompson inside the Standing Rock Rural Water Supply System water treatment plant explains the advanced water filtration system.



Turning the valve is Standing Rock Sioux Tribe Councilman Charles Walker. He is the son of the late Ralph Walker who served for many years as the Director of the Standing Rock Rural Water System and was an avid advocate for getting water to all the people of Standing Rock.

pipe, ensures safe, clean and reliable drinking water for the people of Standing Rock,” said Standing Rock Sioux Tribal Chairman, Dave Archambault.

A public Valve-Turning Ceremony to celebrate this major milestone of the project was held August 24, 2017, in front of the Standing Rock Sioux Tribe Rural Water Office in Fort Yates, North Dakota.

“Projects like these demonstrate the benefits of investments in infrastructure to meet the current and future needs of the Tribe,” said Dakota Area Office Manager, Arden Freitag. “This project completes a major effort to stabilize the water supply for the communities on the northern part of the reservation, replacing the Fort Yates Intake that failed in 2003 and an aging water treatment plant.”

Prior to the valve-turning ceremony, Tom Thompson, the project engineer, visited several locations throughout the Standing Rock Rural Water Supply System to observe testing on the final stretch of pipeline constructed connecting the South Dakota side of the System to the



Tom Ridley (left) and Tom Thompson (right) discuss the computer program that monitors the newly operational Standing Rock Rural Water Supply System. This interactive computer program provides real-time information on each of the System components.

North Dakota side. Tom Ridley, Operations Superintendent with Standing Rock Rural Water, was conducting the

**“Projects like these demonstrate the benefits of investment in infrastructure to meet the current and future needs of the Tribe.”**

**- Arden Freitag, Dakota Area Office Manager**

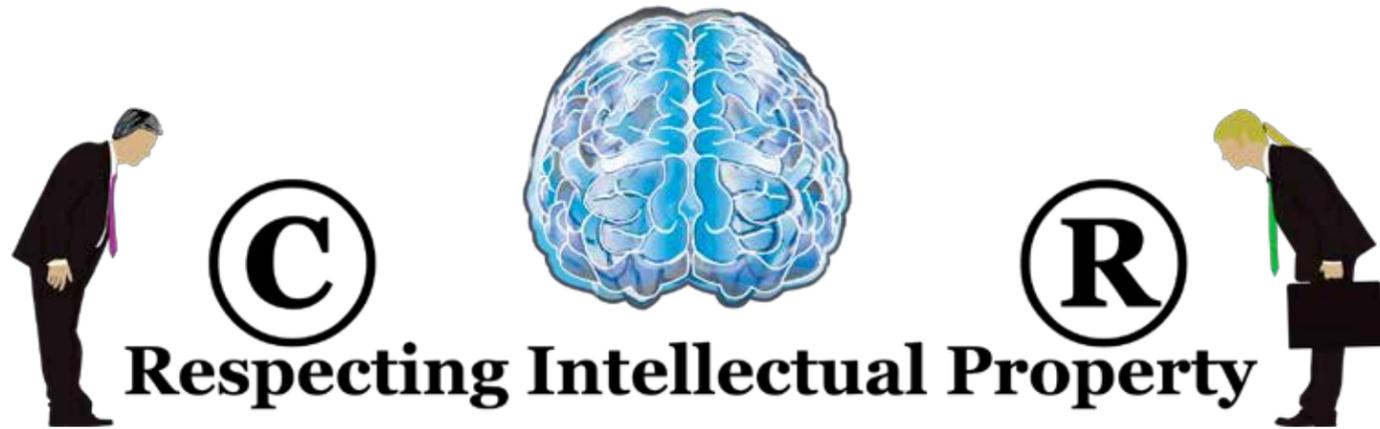
System test and closed off the valve from the old Fort Yates Water Treatment Plant and filled the water tank north of

Fort Yates from the newly completed pipeline system. As the SCADA system for the final connection was installed, the old intake and water treatment plant located in Fort Yates, North Dakota were shut down and the new system began serving water to the majority of people on the Standing Rock Indian Reservation. The old water treatment plant will be decommissioned in the coming months as the new water treatment plant becomes fully operational serving the Fort Yates community.



Standing Rock Rural Water Supply System water treatment plant. Left to right is Tom Ridley and Tom Thompson.





Have you ever just opened a web browser and grabbed an image or video that was perfect for your report or presentation? Did you copy and paste a great paragraph or line from one of your favorite internet bloggers that summed up your thoughts and fit perfectly into your training talk? Did it slip your mind to get permission and give proper credit? Were you aware that by using media assets like that without permission is committing a crime? That's right, you just became a criminal by infringing upon someone else's intellectual property. The penalties and fines associated with this scandalous crime can actually be pretty stiff and could even result in jail time. While it is increasingly convenient to pop open a web browser, click a search and find that perfect image, the reality is most images and musings on the internet are covered by copyright protections that require permissions from the content originator for a license to use their work.

Copyright and licensing are legal rights and protections for content creators that define how others can view and/or use their original creations. These rights and protections are important for defending the intellectual property and encouraging creativity of the original

respecting both the media asset and the creators by using content with authorization.

You may remember a few years back when a street artist named Shepard Fairey created "Hope," a poster in support of then Presidential Candidate Barack Obama that was a derivative work from a photo taken by freelance photographer Mannie Garcia for Associated Press (AP) in 2006. Ultimately, that poster became the focus of media attention and a high profile court case.



Illegal use of intellectual property can lead to jail time.

creators by enforcing proper credit for creative efforts and recognizing the importance of their ideas. No author or artist wants to lose credit for the work that they perform or the creativity of their ideas. Creativity has integrity and is bound by ethics, licensing imposes those ethics and safeguards that integrity. It only takes a moment to follow licensing guidelines and check for copyright. Be responsible and promote creativity by honoring and

This poster grabbed international recognition not only as a single piece, but as a part and/or focus of many other derivative creations in response, parody or with respect to the poster. Photographer Mannie Garcia retained rights to the original photograph as per conditions described in his contract with AP maintaining the image as part of their collection. While Garcia continues to be proud of the art created by Fairey, he did not approve of

Whether these inserts are free or not, we cannot feign naivety when it comes to copyright and licensing the source materials. It is our responsibility to research, obtain and abide by the copyright or license agreement to ensure fair use of the original materials. There is a common misconception that noncommercial or nonprofit use of media assets is always acceptable.

the intellectual property being used without expressed permission. This is the part that should grab your attention as a content developer. Both a civil and criminal adjudication of Fairey's actions found him in violation of copyright infringement resulting in a civil settlement with shared rights of the image, a criminal sentence of community service, and a \$30,000 fine.. All for the use of one image in a derivative work without permission. That is no slap on the wrist, and was actually recommended that Fairey serve jail time! This very public example of illegal use of a media asset should highlight the need to obtain proper license to use media assets and always credit the originator of each piece.

We all want to create presentations with an inspirational experience that wow our intended audience. As federal workers, we do our best to accomplish this with graphics, video, audio and dynamic transitions into our presentations.

Whether these inserts are free or not, we cannot feign naivety when it comes to copyright and licensing the source materials. It is our responsibility to research, obtain and abide by the copyright or license agreement to ensure fair use of the original materials. There is a common misconception that noncommercial or nonprofit use of media assets is always acceptable.

It isn't! These items may be easy to obtain by a simple right click and save as, but there is still a need to obtain permission from the asset creator. Fair use is a legal term and is judged case by case. For all of us that are government professionals, understanding the fair use of media assets and their license limitations is critical. Understanding how to navigate copyright and licenses allows us to be creative without plagiarizing or infringing on a protected copyright and jeopardizing ourselves and the government with the possibility of legal recourse. I am going to use this article to give you a push in the right direction when it comes to giving proper credit and licensing a media asset. Remember, this is not legal advice, it is only a suggestion on how to navigate using media assets.

use of a copyright covered item is violated when the material is used without proper licensing and permission. This is true whether there is a monetary charge for the created project or not. A simple review of restrictions and obtaining proper permissions can help any content developer stay within legal bearings when navigating fair use.

The method in which licensed content can be used and distributed is dependent on the type of license and attributes attached to it. Some agreements allow for a modification of the original work. This ability to modify allows for things like color changes, size changes, or any other adjustments needed to fit into an overall design specific project. Some license agreements will specify what modification can be made

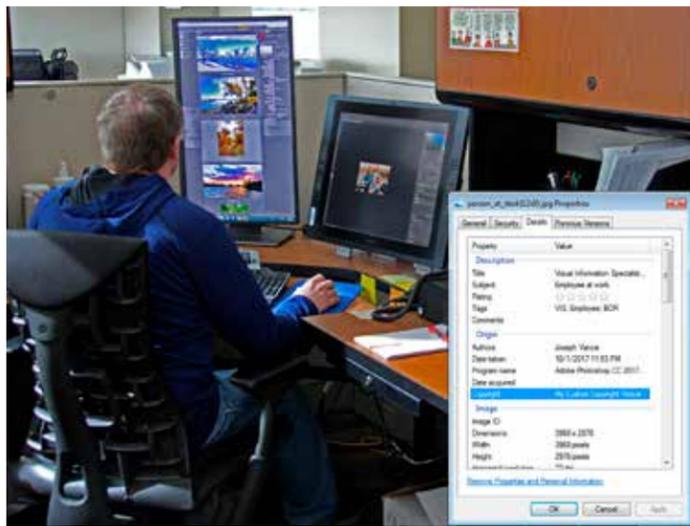
in order to refrain the designer from making derivative works. A derivative work is taking elements of the original work and rearranging them, whole or in part, with other works to create an entirely new work to satisfy project needs. A quick illustration of this idea would be



**WAIT!! Before you distribute that poster, or show that video in your presentation, do you have all the following included for each media item:**

- Licensing documentation organized and easily searchable.
- Appropriate credit and items attributed.
- Pertinent source information easily available for reference (media author/date of creation/gear used/locations/crew/etc.)
- Contact information for content creators readily available.
- Point of source acquisition should be listed.

acquiring a licensed sound or song and then adding a vocal or speaking track to it, to insert it within a presentation. A large portion of materials allow for full manipulations like this, however, many content providers stipulate for name credit for the original work or an attribution must be added to the derivative design acknowledging that it is not an original standalone work.



Modern searches for imagery generally allow for easy access to pertinent image information. In most cases a person can right click on an image and view the image properties. Most images that have an official copyright or have licensing terms will list it within properties, as can be seen in the image on the left.



The image on the right does not appear to have a copyright listed, however the image does list a title for the image and the author of the image, so further research can be done to identify if the image is royalty and copyright free.

These licensing agreements apply to any and all uses of any original or derivative work of an item that holds a copyright or license for the lifetime of the content author plus 70 years, and can be extended if inherited or purchased by a third party. The legal and responsible solution is to get explicit permission every time, all of the time.

Works created by government employees and officials during the course of their duties are generally not considered to be subject to copyright or licensing restrictions unless used outside of the United States by foreign municipalities and citizens. There are restrictions in place that the average content provider need be aware of when using federal government works that supersede normal copyright

and licensing restrictions. These restrictions include how federal government specific logos and trademarks are used that may imply government endorsement of a product or cause. There is also a good chance that some content within the government work is subject to a copyright or license agreement which would require the license be observed and respected. The federal government work designation does not apply to works of state and local governments. Works of state and local governments may be protected by copyright and have strict licensing rules.

Today's modern approach to sharing ideas, imagery and other forms of content immediately on social media platforms and instant messaging applications sometimes blur

the lines of what content creators have as intention for their original works and licensed use of that content. Content providers are finding it to be exponentially difficult as the culture of memes and screen grabs saturate these platforms. There are many complications to copyright and licensing standards that can create some lasting impositions when used in any form of public or private distribution. The professional content developers are the one's held most responsible for licensing to date. However, it only takes one illegal use of a media piece without fair use attached to engage in a lawsuit and legal repercussions. It makes for a more effective and responsible project when all aspects of creation and content use follow licensing and copyright protections.



# Reclamation's Huntley Project Office Honored



You might think that a building constructed in 1918 was already "historic," but this summer the Bureau of Reclamation's Huntley Project Office made it official by being listed on the National Register of Historic Places. This unassuming building in the small rural community of Ballantine, Montana, packs a lot of history for its size.

The Reclamation Act was passed into law in 1902 to fund irrigation projects for the arid lands of the American West. This law enabled the creation of the U.S. Reclamation Service (now known as the Bureau of Reclamation). In 1918, the Huntley Project Office was built to serve as the

functions of operation and maintenance; and harkens to a time when our newly constructed irrigation projects were transforming the West.

The Huntley Project Office was listed on the National Register on June 5, 2017, nearly one hundred years after its construction. The nomination was completed by Reclamation's Montana Area Office to fulfill a commitment made under the National Historic Preservation Act. The office is still in active use by the Huntley Irrigation District serving irrigators as it has been for the last century.

administrative center for one of the earliest irrigation projects in the nation, and the third irrigation project in Montana.

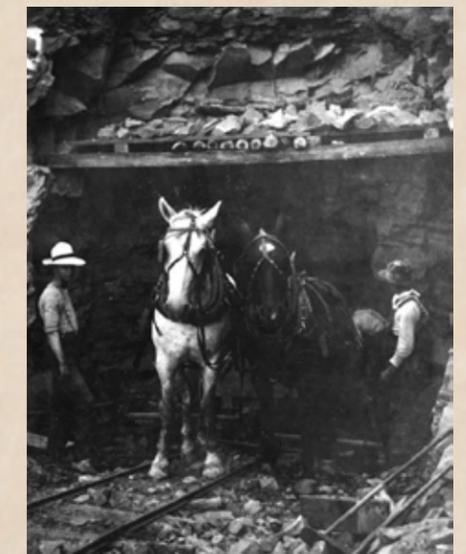
The office is a simple utilitarian rectangular-shaped hipped roof building clad with drop siding, with a concrete vault extending from the rear elevation. The simple design with minimal decoration is in keeping with Reclamation's practice of constructing basic, functional buildings with little or no ornamentation. This project office represents Reclamation's essential



Huntley Project engineering staff in front of the construction office on May 14, 1907.



Huntley as seen on November 15, 1908.



Horse drawn trolley at tunnel portal during Huntley Project construction.



# Quagga Mussels

## Discovered at Green Mountain Reservoir, Colorado

By James Bishop, ECAO

Bureau of Reclamation scientists discovered quagga mussel veligers (larvae) in Green Mountain Reservoir on August 18th and a laboratory contracted by Colorado Parks and Wildlife confirmed the discovery on August 29th. While quagga and zebra mussels have plagued waters across the United States for some time, the Aquatic Nuisance Species (ANS) inspection program run by Colorado Parks and Wildlife (CPW) has

been successful in preventing any mature infestations in the state. Quagga veligers have been identified in multiple Colorado waters before, such as in Lake Pueblo in 2007, which has since been cleared with no signs of ANS. However, to date no adult populations have been able to take hold in Colorado, a well-earned point of pride for CPW.

This success begs the question: what happened at Green Mountain? To be fair, protecting Colorado's waters was always a thorny challenge. With the

state's immense popularity among tourists, boaters included, it is a virtual certainty that out-of-state boaters have and will unwittingly ferry ANS across state lines. CPW was proactive in developing and implementing a robust inspection program and committed \$4.5 million annually to its efforts. Unfortunately, the tax revenue which supported the program was lost when an oil company won its lawsuit against the state in 2016 and was no longer required to pay certain severance taxes derived from oil and gas extraction. This



Illustration of quagga mussel damage to infrastructure at Lake Mead.



unexpected loss of revenue left the ANS inspection program in the lurch, and numerous associated agencies – to include CPW – were left scrambling to fill in the funding gaps as best they could. While state legislation to generate the revenue the program requires has been proposed, its fate remains uncertain.

The precise vector for the Green Mountain Reservoir is unknown, but CPW implemented their containment protocols immediately, inspecting and placing a seal on all exiting boats that will prevent them from entering another body of water unless the boat has been decontaminated by a certified professional.

These common-sense measures on the part of CPW have been complimented by Reclamation's efforts to obstruct locations where unauthorized boat launches are known to occur. However, given the reservoir's lengthy perimeter and close proximity to private lands, preventing unauthorized boat launches is a challenge. To date, the Green Mountain Powerplant crew has installed boulders at all the locations along Federal lands vulnerable to furtive boaters. Additionally, the Green Mountain crew worked with Forest Service and CPW to post signs in shallow waters of the reservoir immediately adjacent to private lands where unauthorized boat launches are suspected.

The Eastern Colorado Area Office (ECAO) has requested funds for a decontamination station at Green Mountain Reservoir in its fiscal year 2018 budget proposal. In terms of monitoring, CPW has instituted a testing schedule in line with its ANS protocols. The protocols will last until the reservoir shows no signs of adult or larval quagga mussels or the worst-case scenario materializes ... an adult infestation.

The threat to facilities across Reclamation remains ever-present. Monitoring, effective recreation partnerships, and a state agency with the authority to detain and fine boaters remain the best weapons at Reclamation's disposal as ECAO staff endeavor to maintain the prodigious contributions of the Colorado-Big Thompson and Fryingpan Arkansas projects to the citizens of Colorado.



Placing boulders at Green Mountain Reservoir to prevent unauthorized boat launches.



Area showing potential access point for unauthorized boat launches at Green Mountain Reservoir.



Workers move boulders into place at Green Mountain Reservoir to prevent unauthorized boat launches.





Los Alamos School group at Pilot Butte Reservoir, which is 10 miles below the Wind River Diversion Dam.

**By Jay Dallman, WYAO**

A total eclipse of the sun was observed on August 21, 2017 along a 60-mile-wide band crossing the state of Wyoming from the northwest to the southeast. The last total eclipse appearing in the United States occurred in 1979 and last time one was viewed in Wyoming was back in 1918. The next total eclipse in the U.S. will be in 2024 and the next opportunity to see one in Wyoming will be in 2092. The 2017 solar eclipse spanned the entire U.S.



University of Wyoming astronomical group set up at Boysen Reservoir.



from the west coast to the east coast. The next total eclipse to span the entire country will be in 2045.

Wyoming residents were joined by a large number of out-of-state visitors who were drawn to the clear skies for the August eclipse. There was minimal light pollution and ample viewing space along the path of totality in the Cowboy State. By some estimates, the population of Wyoming more than doubled and perhaps almost tripled on the day of the eclipse. When the long anticipated celestial event arrived, as promised, it did not disappoint. The centerline of the path



Long line of vehicles leaving Boysen Reservoir following the eclipse.

of totality passed through the southern outskirts of Casper and very near the Wyoming Area Office (WYAO). At the

centerline in Casper, totality was observable for 2 minutes and 28 seconds. The shadow of the moon on the earth swept by the area at more than 1,700 miles per hour. During totality, a few bright stars and planets could be seen in the darkened sky. The temperature dropped around 15 degrees and some viewers donned jackets or sweaters. Many reported hearing crickets chirping as if it were evening and a round of shouts and cheers was heard at the moment totality was reached.



Reclamation employees at the Wyoming Area Office test their solar eclipse glasses.

The Wyoming Area Office worked with our managing partners to develop temporary campsites and viewing areas. Extra portable restroom facilities, traffic control and law enforcement personnel were added for the event.

Three of Wyoming's State parks located on Reclamation



surface adjacent to our reservoirs were in the path of the eclipse. In a four day period leading up to and including the day of the eclipse, Glendo State Park estimates they accommodated more than 45,000 visitors. Normally they get about 39,000 visitors during the entire month of August. Boysen State Park saw roughly 40,000 visitors compared to a normal August total of 16,000. Guernsey State Park hosted nearly 32,000 visitors during the same period which tripled their normal August visitor count.

Several educational institutions set up instrumentation to



**Colorado Springs Astronomical Society group at Glendo Reservoir.**



**Los Alamos High School banner at Pilot Butte Reservoir.**



**Overflow parking at Glendo State Park.**

view and record the eclipse. In most cases, in addition to teaching students, they offered advice and assistance to the general public. The University of Wyoming astronomical team set up at Boysen Reservoir, the Colorado Springs astronomical group set up at Glendo Reservoir, and the Los Alamos High School set up at Reclamation's Pilot Butte Reservoir.

Los Alamos High School participated in the Citizen CATE (Continental-America Telescopic Eclipse) Experiment. Citizen CATE's goal was to capture images of the inner solar corona using a network of 68 telescopes operated by citizen scientists, high school groups and universities. Normally the bright photosphere, or solar surface,

overpowers the Sun's faint, wispy outer atmosphere called the corona. The corona can only be observed when the photosphere is covered up, in this case, by the moon.

CATE planned to produce a scientifically unique data set:



**Overnight campers and day use visitors stake out their viewing areas at Glendo Reservoir.**

high-resolution, rapid cadence (one photo every 10 seconds) white light images of the inner corona for 90 minutes along the 2,500 mile path of totality.

By all accounts, the eclipse was spectacular. For many it was a once in a lifetime experience. Reclamation's managing partners commented on how well-mannered the visitors were. They were generally orderly and considerate and in many cases were credited with taking away more trash than they brought in. Many of the first time visitors to Wyoming commented on the wonderful experiences they had and said they would like to return to Wyoming soon for another visit.





# GP PHOTO CONTEST



## First Place

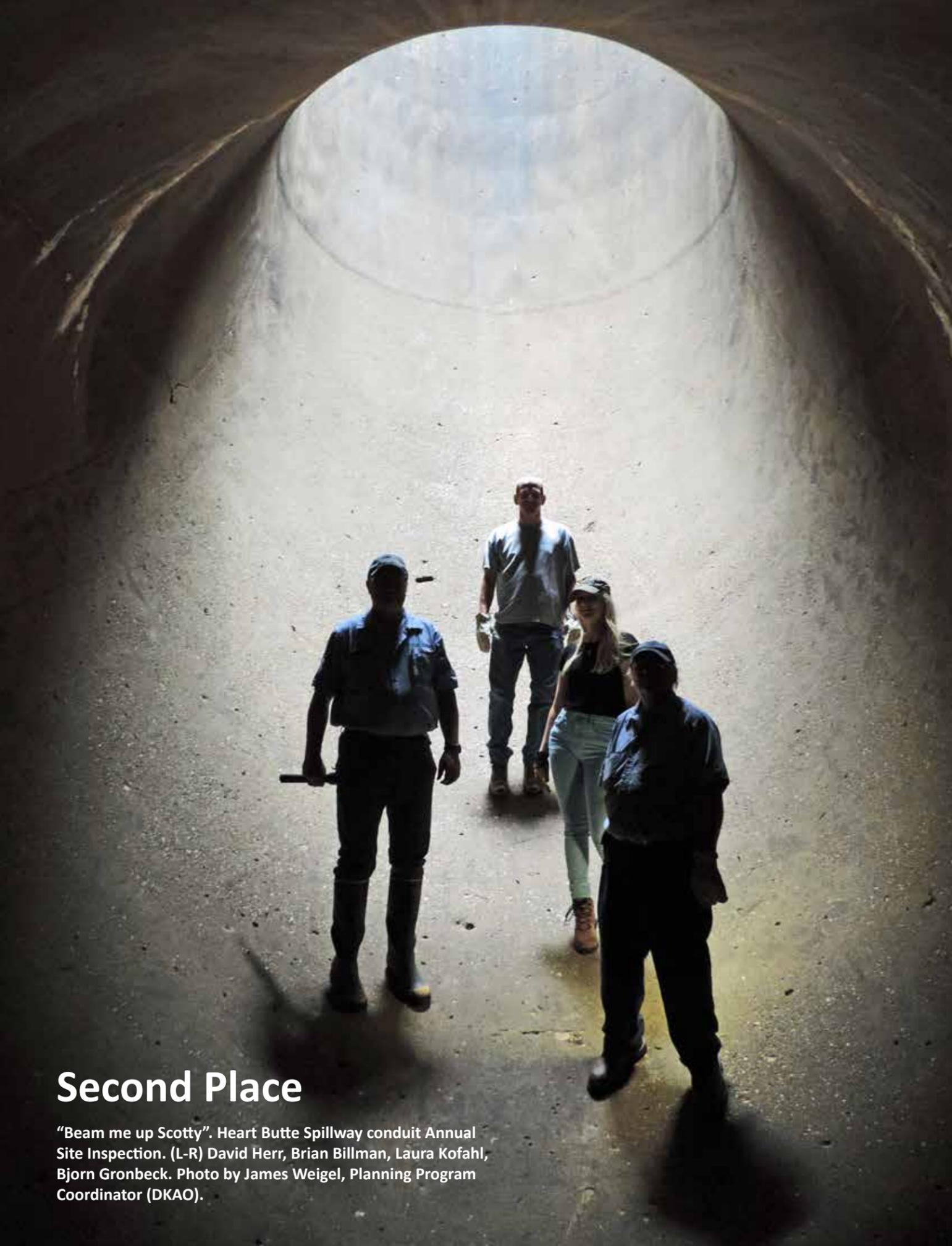
Adam Northup descends down the Yellowtail spillway in a glory of light. Photo by Jeff Ticknor, Civil Engineer (RO) & Nathan Morgan, Civil Engineer (WYAO).

The 2017 GP Photo Contest produced 116 photo entries showing the diverse activities, facilities, people, and wild-life in the Great Plains Region. More than 160 votes were cast for 56 assorted photos, but top honors go to four photographers and their great images.

Jeff Ticknor, Civil Engineer (RO) & Nathan Morgan, Civil Engineer (WYAO) win first place with their photo of Adam Northup descending down the Yellowtail spillway in a glory of light. James Weigel, Planning Program Coordinator (DKAO) earns second place with his photo “Beam me up Scotty”, which shows the Heart Butte Spillway conduit Annual Site Inspection. Third place goes to Shelly Wayne (spouse of Michael Wayne; mechanic at Buffalo Bill Dam WYAO) with her photo of Buffalo Bill Dam in Cody, Wyo. on a frigid February day.

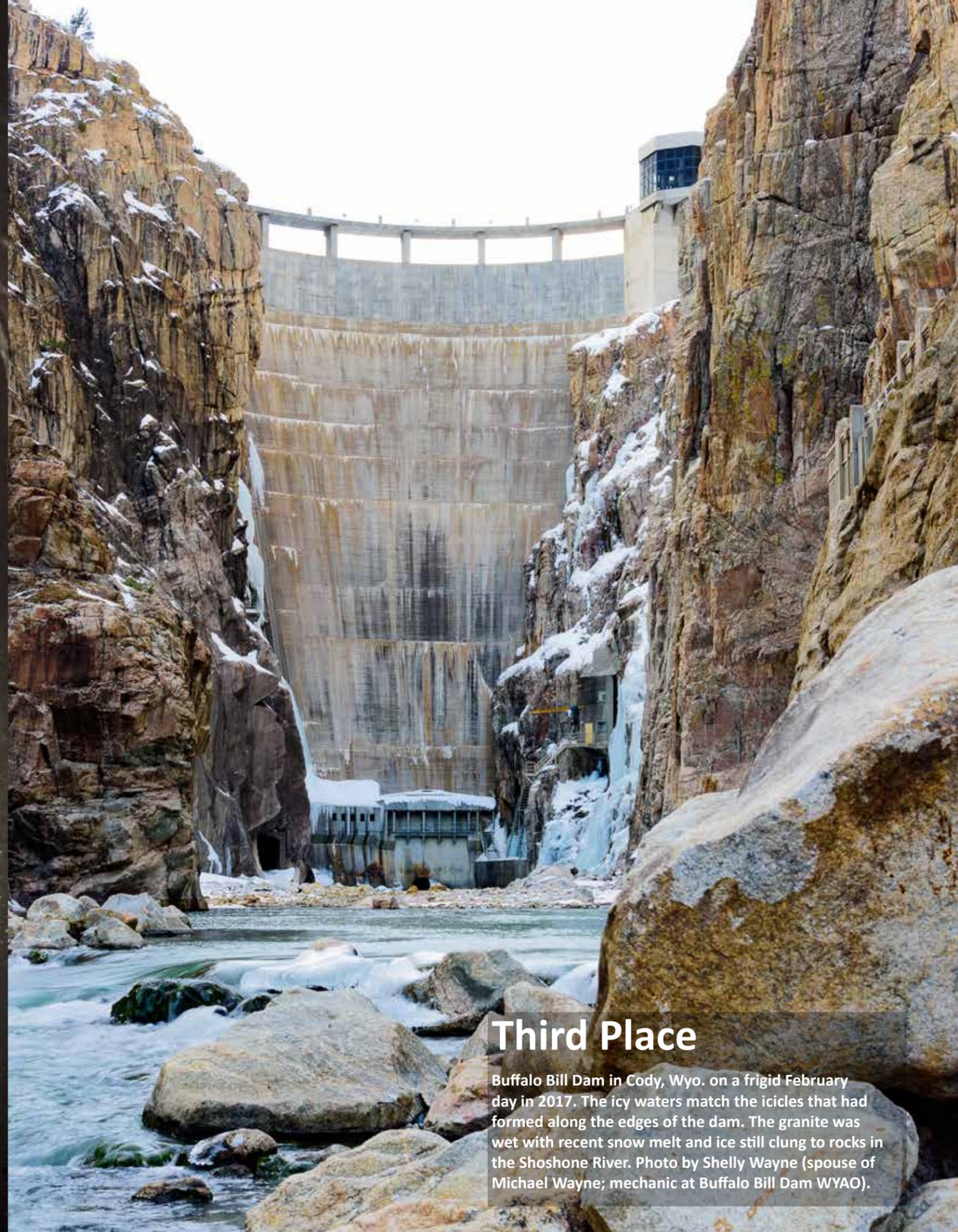
Keep an eye out for all photo contest images in a variety of Reclamation publications, including the GP Region Calendar, Plains Talk Magazine, presentations and in our multimedia gallery on the Internet at [www.usbr.gov/gp/multimedia](http://www.usbr.gov/gp/multimedia).

Thank you photographers for the great images! And thank you everyone who took the time to view the photos and vote.



## Second Place

"Beam me up Scotty". Heart Butte Spillway conduit Annual Site Inspection. (L-R) David Herr, Brian Billman, Laura Kofahl, Bjorn Gronbeck. Photo by James Weigel, Planning Program Coordinator (DKAO).



## Third Place

Buffalo Bill Dam in Cody, Wyo. on a frigid February day in 2017. The icy waters match the icicles that had formed along the edges of the dam. The granite was wet with recent snow melt and ice still clung to rocks in the Shoshone River. Photo by Shelly Wayne (spouse of Michael Wayne; mechanic at Buffalo Bill Dam WYAO).



# Federal Acquisition Certification (FAC) Program

## What You Should Know!

By Renee Parra, GPRO

### FAC-C / FAC-COR / FAC-P/PM

Federal Acquisition Institute (FAI), established in 1976 under the Office of Federal Procurement Policy Act, facilitates and promotes career development and strategic human capital management for the acquisition workforce. FAI supports more than 50 comprehensive training courses in traditional and distance settings that range from the entry-level “Shaping Smart Business Arrangements” to team training such as “Performance Based Acquisition” and focused topics

on “Risk Management” and “Earned Value Management” to prepare men and women for leadership in the acquisition workforce in which they serve.

“There are two very important certification programs that have been introduced to the Federal acquisition workforce in the last 11 years,” said Chan Worley, Chief Contracting Officer for the Great Plains Region. “In tandem with this program, appropriate construction services staff are in compliance with and maintains currency with the second program - Federal Acquisition Certification for Contracting Officer Representatives (FAC-COR) Program.”

The authority for the Federal Acquisition Certification programs begins with the Executive Office of the President and flows down through the following policy makers:

- Office of Management and Budget (OMB)
  - Office of Federal Procurement Policy (OFPP)

OFPP Policy Letter 05-01, Developing and Managing the Acquisition Workforce was built on the success of DoD’s Defense Acquisition Workforce Improvement Act (DAWIA) by broadly defining the acquisition workforce and closely aligning civilian (non-DoD) and defense acquisition workforce requirements.

“This Policy Letter establishes the government-wide framework for creating a federal acquisition workforce with the skills necessary to deliver best value supplies and services, find the best business solutions, and provide strategic business advice to accomplish agency missions.”

- The FAC-C program was enacted in Jan 2006
- The FAC-P/PM program was enacted in Apr 2007
- The FAC-COR program was enacted in Nov 2007

OFPP provides acquisition policy to all Chief Acquisition Officers (CAOs) and Senior Procurement Executives (SPEs) to implement at the Department Level.

The SPE for DOI is Megan Olsen, Office of Acquisition and Property Management (PAM).

The PAM office is responsible for implementing OFPP policy, and if applicable, issuing supplemental policy to the Bureaus. The PAM office has the final approval authority for all initial FAC-C and all initial FAC-P/PM applications.

Due to sheer volume, authority to approve initial FAC-COR applications, as well as all program Achievement applications, resides with the Bureau Procurement Chiefs (BPCs).

Mr. Brian Heath from the PAM office serves as the Agency Career Manager (ACM), appointed by the SPE.

On 9/1/16, the PAM office launched the DOI Federal Acquisition Certification and Appointment Programs Google site <https://sites.google.com/a/ios.doi.gov/doi-federal-acquisition-certification-and-programs/home?pli=1> The Google site is a 1-Stop-Shop for DOI policy related to the FAC programs and rolls all three

FAC programs plus Leasing Certifications and Certificates of Appointment (COA) into one document. It also includes the new requirement for annual ethics training for all FAC certifications (may be used towards Achievement requirements).

### FAC Program Overview

The FAC programs establish general education (if applicable), training, and experience requirements.

FAC-C, FAC-COR, FAC-P/PM (coming soon: Lease



### Contracting (FAC-C)

The Federal Acquisition Certification in Contracting (FAC-C) Program is for contracting professionals in the Federal Government performing contracting and procurement activities and functions. The purpose of this program is to establish general education, training, and experience require-

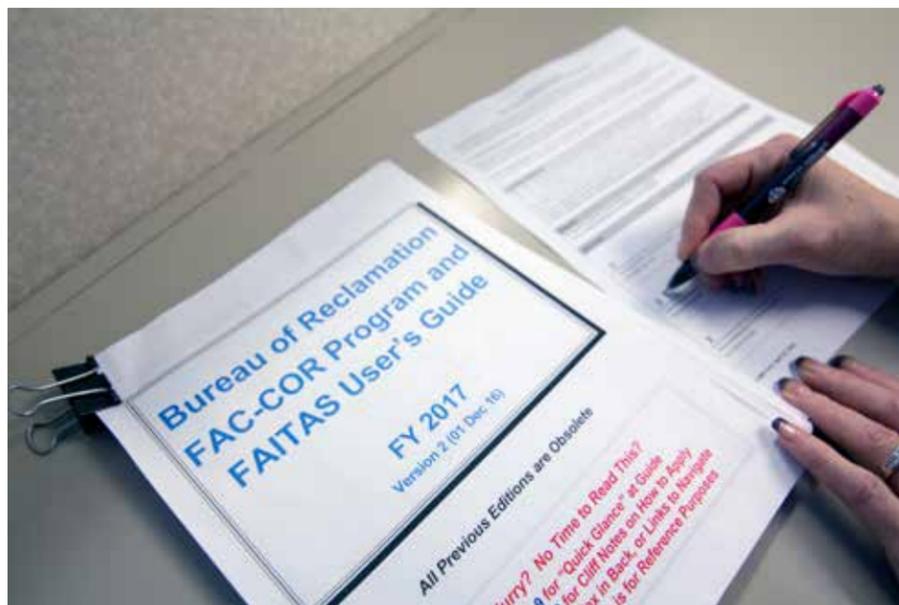
ments for those contracting professionals. The FAC-C applies to all executive agencies, except the Department of Defense (DoD). The certification is mandatory for Contracting Officers and

must be at a level commensurate with their Contracting Officer Authorization (COA) warrant level. It is also required for persons performing procurement analyst policy functions as a significant portion of their duties, regardless of job series. Reclamation currently has approximately 129 FAC-C

FAC-C Requirements			
Requirements for:	Level I	Level II	Level III
<b>Experience*</b>	1 years of contract work experience based on the Contract Specialist (GS-1102) Qualification Standard	2 years of contract work experience based on the Contract Specialist (GS-1102) Qualification Standard	4 years of contract work experience based on the Contract Specialist (GS-1102) Qualification Standard
<b>Education**</b>	Baccalaureate degree from an accredited institution or 24 semester hours of business-related college courses	Baccalaureate degree from an accredited institution or 24 semester hours of business-related college courses	Baccalaureate degree from an accredited institution and 24 semester hours of business-related college courses

Certification)

Each certification has three levels and the official DOI system used for tracking requirements and applying for all of the FAC programs is: The Federal Acquisition Institute Training Application System (FAITAS) pronounced “Fayh-taz”; or “Fajitas”



Requirements for Experience	Level I	Level II	Level III
Requirements for Experience	1 year of contract management with the 11021 Qualification Standard	2 years of contract management with the 11021 Qualification Standard	3 years of contract management with the 11021 Qualification Standard
Education	Acquisition degree from an accredited institution or 3 years of contract management	Acquisition degree from an accredited institution or 2 years of contract management	Acquisition degree from an accredited institution or 1 year of contract management
Training	<ul style="list-style-type: none"> <li>11021 Course</li> <li>Contract Mgt. 101</li> <li>Contract Mgt. 102</li> <li>Contract Mgt. 103</li> <li>Contract Mgt. 104</li> <li>Contract Mgt. 105</li> <li>Contract Mgt. 106</li> <li>Contract Mgt. 107</li> <li>Contract Mgt. 108</li> <li>Contract Mgt. 109</li> <li>Contract Mgt. 110</li> <li>Contract Mgt. 111</li> <li>Contract Mgt. 112</li> <li>Contract Mgt. 113</li> <li>Contract Mgt. 114</li> <li>Contract Mgt. 115</li> <li>Contract Mgt. 116</li> <li>Contract Mgt. 117</li> <li>Contract Mgt. 118</li> <li>Contract Mgt. 119</li> <li>Contract Mgt. 120</li> <li>Contract Mgt. 121</li> <li>Contract Mgt. 122</li> <li>Contract Mgt. 123</li> <li>Contract Mgt. 124</li> <li>Contract Mgt. 125</li> <li>Contract Mgt. 126</li> <li>Contract Mgt. 127</li> <li>Contract Mgt. 128</li> <li>Contract Mgt. 129</li> <li>Contract Mgt. 130</li> <li>Contract Mgt. 131</li> <li>Contract Mgt. 132</li> <li>Contract Mgt. 133</li> <li>Contract Mgt. 134</li> <li>Contract Mgt. 135</li> <li>Contract Mgt. 136</li> <li>Contract Mgt. 137</li> <li>Contract Mgt. 138</li> <li>Contract Mgt. 139</li> <li>Contract Mgt. 140</li> <li>Contract Mgt. 141</li> <li>Contract Mgt. 142</li> <li>Contract Mgt. 143</li> <li>Contract Mgt. 144</li> <li>Contract Mgt. 145</li> <li>Contract Mgt. 146</li> <li>Contract Mgt. 147</li> <li>Contract Mgt. 148</li> <li>Contract Mgt. 149</li> <li>Contract Mgt. 150</li> </ul>	<ul style="list-style-type: none"> <li>11021 Course</li> <li>Contract Mgt. 101</li> <li>Contract Mgt. 102</li> <li>Contract Mgt. 103</li> <li>Contract Mgt. 104</li> <li>Contract Mgt. 105</li> <li>Contract Mgt. 106</li> <li>Contract Mgt. 107</li> <li>Contract Mgt. 108</li> <li>Contract Mgt. 109</li> <li>Contract Mgt. 110</li> <li>Contract Mgt. 111</li> <li>Contract Mgt. 112</li> <li>Contract Mgt. 113</li> <li>Contract Mgt. 114</li> <li>Contract Mgt. 115</li> <li>Contract Mgt. 116</li> <li>Contract Mgt. 117</li> <li>Contract Mgt. 118</li> <li>Contract Mgt. 119</li> <li>Contract Mgt. 120</li> <li>Contract Mgt. 121</li> <li>Contract Mgt. 122</li> <li>Contract Mgt. 123</li> <li>Contract Mgt. 124</li> <li>Contract Mgt. 125</li> <li>Contract Mgt. 126</li> <li>Contract Mgt. 127</li> <li>Contract Mgt. 128</li> <li>Contract Mgt. 129</li> <li>Contract Mgt. 130</li> <li>Contract Mgt. 131</li> <li>Contract Mgt. 132</li> <li>Contract Mgt. 133</li> <li>Contract Mgt. 134</li> <li>Contract Mgt. 135</li> <li>Contract Mgt. 136</li> <li>Contract Mgt. 137</li> <li>Contract Mgt. 138</li> <li>Contract Mgt. 139</li> <li>Contract Mgt. 140</li> <li>Contract Mgt. 141</li> <li>Contract Mgt. 142</li> <li>Contract Mgt. 143</li> <li>Contract Mgt. 144</li> <li>Contract Mgt. 145</li> <li>Contract Mgt. 146</li> <li>Contract Mgt. 147</li> <li>Contract Mgt. 148</li> <li>Contract Mgt. 149</li> <li>Contract Mgt. 150</li> </ul>	<ul style="list-style-type: none"> <li>11021 Course</li> <li>Contract Mgt. 101</li> <li>Contract Mgt. 102</li> <li>Contract Mgt. 103</li> <li>Contract Mgt. 104</li> <li>Contract Mgt. 105</li> <li>Contract Mgt. 106</li> <li>Contract Mgt. 107</li> <li>Contract Mgt. 108</li> <li>Contract Mgt. 109</li> <li>Contract Mgt. 110</li> <li>Contract Mgt. 111</li> <li>Contract Mgt. 112</li> <li>Contract Mgt. 113</li> <li>Contract Mgt. 114</li> <li>Contract Mgt. 115</li> <li>Contract Mgt. 116</li> <li>Contract Mgt. 117</li> <li>Contract Mgt. 118</li> <li>Contract Mgt. 119</li> <li>Contract Mgt. 120</li> <li>Contract Mgt. 121</li> <li>Contract Mgt. 122</li> <li>Contract Mgt. 123</li> <li>Contract Mgt. 124</li> <li>Contract Mgt. 125</li> <li>Contract Mgt. 126</li> <li>Contract Mgt. 127</li> <li>Contract Mgt. 128</li> <li>Contract Mgt. 129</li> <li>Contract Mgt. 130</li> <li>Contract Mgt. 131</li> <li>Contract Mgt. 132</li> <li>Contract Mgt. 133</li> <li>Contract Mgt. 134</li> <li>Contract Mgt. 135</li> <li>Contract Mgt. 136</li> <li>Contract Mgt. 137</li> <li>Contract Mgt. 138</li> <li>Contract Mgt. 139</li> <li>Contract Mgt. 140</li> <li>Contract Mgt. 141</li> <li>Contract Mgt. 142</li> <li>Contract Mgt. 143</li> <li>Contract Mgt. 144</li> <li>Contract Mgt. 145</li> <li>Contract Mgt. 146</li> <li>Contract Mgt. 147</li> <li>Contract Mgt. 148</li> <li>Contract Mgt. 149</li> <li>Contract Mgt. 150</li> </ul>

holders (12 in GP Region)

The FAC-C contains three levels of certification that allows for appropriate education, training and experience for contracting professionals managing a range of contract vehicles, from low-risk contracts (such as supplies) to high-risk, complex acquisitions (such as Information technology IT systems). Each level has specific education, training, and experience requirements. The FAC-C shall be recognized by all federal civilian agencies as evidence that an employee meets core requirements to perform contracting functions.

“We in GP Region are in full compliance with all entry requirements for newly

assigned staff as well as the continuation education requirements necessary for the contracting staff to maintain currency,” said Worley.

Agencies covered by the FAC-C program may require additional training and experience beyond the basic FAC-C requirements. DOI for example, requires all FAC-C holders to complete one hour of ethics training annually based on the required maintenance cycle and tracked in FAITAS with a copy of certificate of completion; the required ethics training may count toward maintenance training. BOR requires all warranted officers to take: Simplified Acquisition Procedures (or equivalent) – 40

CLPs and Commercial Items – 16 CLPs. Additional training is training in support of the agency’s mission or the requirements of a contracting officer’s specific position.

To maintain a FAC-C, contracting professionals are required to earn 80 continuous learning points (CLPs), including 2 ethics, every two years, beginning with the date of their certification. Acquisition career managers (ACMs) monitor the continuous learning requirements for individuals holding FAC-Cs to ensure they meet these requirements. It is the contracting professional’s responsibility to ensure that his/her continuous learning requirements are met. If the FAC-C holder allows their certification to lapse, it will be revoked by FAITAS and the individual must obtain BPC approval to re-apply for certification.

**Contracting Officer’s Representative (FAC-COR)**

The Federal Acquisition Certification for Contracting Officer’s Representatives (FAC-COR) program is for acquisition professionals in the Federal Government performing contract management activities and functions. Contracting Officer’s Representatives (CORs) play a critical role in ensuring that contractors meet the commitment of their contracts. They ensure proper

development of requirements and assist Contracting Officers in managing their contracts. The purpose of this program is to establish training and experience requirements for those acquisition professionals. The FAC-COR applies to all executive agencies, except the Department of Defense (DoD).

CORs are an essential part of the acquisition workforce, which procures more than \$500 billion of goods and services annually. They are the “eyes and ears” of the contracting officer. CORs serve many functions, primarily monitoring contract performance and compliance, providing technical direction to contractors, administering payment and property, and for Reclamation, serving as a “sponsor” to contract personnel requiring DOI Personal Identity Verification credentials. The current active roster for Reclamation is about 550 CORs (almost 1 in every 10 BOR employees). There are 44 in the GP Region.

The FAC-COR contains three levels of certification that allows for appropriate training and experience for Contracting Officer’s Representatives managing a range of various contracts from low-risk to high-risk and complex acquisitions (such as major acquisitions and Information Technology (IT) systems). The FAC-COR shall be recognized by all

federal civilian agencies as evidence that an employee meets core requirements to perform Contracting Officer’s Representative management functions. All Bureau of Reclamation initial applications, including changes in level, require 8 CLPs every two years (Level 1), 40 CLPs every 2 years (Level II & III).

**Program and Project Managers (FAC-P/PM)**

The Federal Acquisition Certification for Program and Project Managers (FAC-P/PM) program is for acquisition professionals in the Federal Government performing program and project management activities and functions. Program and Project Managers (P/PMs) are critical in developing accurate government requirements, defining measurable performance standards, and managing life-cycle activities to ensure that intended outcomes are achieved. The FAC-P/PM focuses on essential functional and technical competencies needed for P/PMs. It does not include agency-specific competencies. The purpose of this program is to establish general education, training, and experience requirements for those acquisition professionals. The FAC-P/PM applies to all executive agencies, except the Department of Defense (DoD).

FAC-P/PM level III

certification is mandatory for those project or program managers who are listed as the PM on an Exhibit 300. OFPP suggests agencies consider applying FAC-P/PM to: Individuals with significant involvement in one or more phases of the acquisition investment process (design, development, implementation, modification, maintenance, evaluation, disposal), managers with authority and responsibility for overseeing multiple phases of the acquisition investment process, individuals with responsibility for leading cross-agency or acquisition investment programs for a major portion or all of the investment life-cycle, or individuals responsible for leading, coordinating, managing integrated project teams for acquisition investments.

To maintain a FAC-P/PM, PMs are required to earn 80 CLP’s (including 2 Ethics) every 2 years regardless of the level they hold. There is one BACC for the Bureau of Reclamation managing this program. If you would like additional information or guidance, go to Mark Sinkiewicz, 303-445-3453, msinkiewicz@usbr.gov; for additional information or guidance for the FAC-C or FAC-COR programs, contact Renee Parra, 406-247-7856, or rparra@usbr.gov.

# And in the Darkness, Bind Them: The West's Bid for One Big Electric Grid

By Jonathan Thompson, High Country News, July 24, 2017

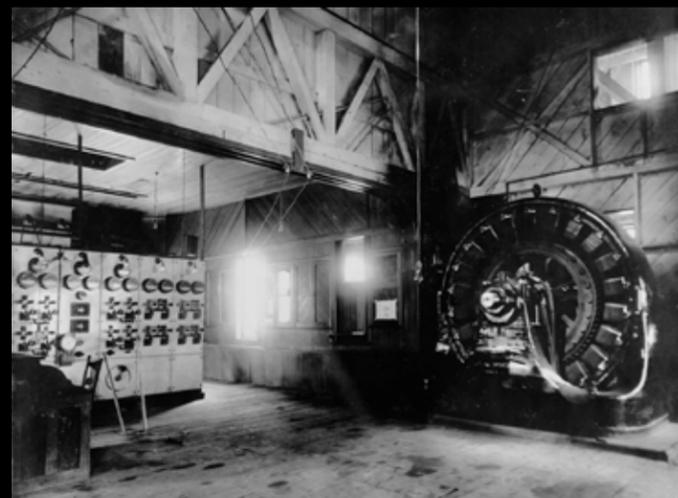
On a few sunny days this spring, California's solar and wind power plants generated so much juice that grid operators had to throw it away, or curtail generation.

The sun was shining, the wind was blowing, but the generators were shut down. The state lost enough electricity from January through June to power 50,000 homes for six months.

The flood of clean power displaced natural gas generation on the California grid. But even as all that extra power was tossed away, utilities in neighboring states burned coal for their air conditioners and televisions. It's as if California avocado growers with a bumper crop had to watch their fruit rot on the trees, while folks in Colorado suffered a guacamole shortage.

The problem is not that there's too much renewable power; the problem is that the electrical grid is divided up in a way that makes it hard for different utilities to share power. Now, a growing cadre of renewable energy advocates, engineers and utility officials are working to fix that.

We often describe the Western electrical grid as if it's a single, unified, vast machine comprising



The switchboard, left, and generator, right, in the Ames Hydroelectric Plant in 1895.

1,000 power plants and high-voltage wires that reach across nearly 2 million square miles. We imagine electrons zipping at the speed of light from wind plants in Wyoming to laptops in California. Not quite.

The grid is physically interconnected but operationally balkanized, broken up into 38 distinct islands, or balancing authorities. Critics compare it to a train with a separate driver for each car, or a creature whose every organ is controlled by a separate nervous system. It's clunky and slow, suited to outdated power sources and antiquated modes of power consumption.

"The current system is too balkanized in its operations, too costly to consumers and too inefficient in its use of power and transmission infrastructure to be successful," says Carl Zichella of the Natural Resources Defense Council. The only way to take advantage of the increasing amount of renewable energy sources, and to abandon fossil fuels, he says, is for all the separate balancing authorities to come together as one.

One of the initial seeds of the Western electrical grid was planted near the boisterous mining town of Telluride, Colorado, in 1891, when an alternating current was sent from a water-powered generator across three miles of copper wire to a motor in a high mountain mine. The planter of that seed was neither engineer nor inventor. He was Lucien L. Nunn.

The Ohio-born Nunn headed West in 1880, first



landing in Leadville, Colorado, then in Durango. When his restaurant flopped, Nunn and his companion and business partner, Malachi Kinney, headed to Telluride. He had studied law in his youth, and legal services were in high demand in mining country. Before long, he had his own practice.

In 1889, one of his clients, the St. Louis-based owner of the Gold King Mine (not to be confused with the Gold King Mine near Silverton, which famously blew out in 2015), asked Nunn to whip the venture into shape. The mine had tapped some rich veins, but the cost of hauling coal up to its lofty perch to power the mill's steam engines ate up the profits.

The logical solution was to use hydro-power to power the mill's crushers, stampers and sorters. But the mill sat at 12,000 feet above sea level, 2,000 feet above the nearest viable stream. Nunn couldn't move the water to the mill. Maybe, however, he could find a way to move the water-generated power. So he brought in his younger brother, Paul, an engineer, to help.

For \$50,000 in gold, they hired Westinghouse and company to build a 3,000-volt alternating current generator powered by water piped from a fork of the San Miguel River, connected by three miles of copper wire to an identical motor in the mill.

To keep the operation going, Lucien Nunn hired young men, opening the Telluride Institute to train them. Each student put a pin on a map, indicating where he hailed from, earning the moniker "pinheads." One of the pinheads' challenges was to match electrical supply with demand, otherwise known as "following the load."

Other mine managers in the area liked what they saw, and the Nunns installed more generators to send the power of the area's cascading streams to the mines, and then linked the generators to each other to provide redundancy and to make it easier to follow the load. This made it one of the nation's first electrical grids, and it had a transformative effect. In 1901, the U.S. Treasury Department credited the Nunns' Telluride

Power Company with making San Miguel County a mining powerhouse.

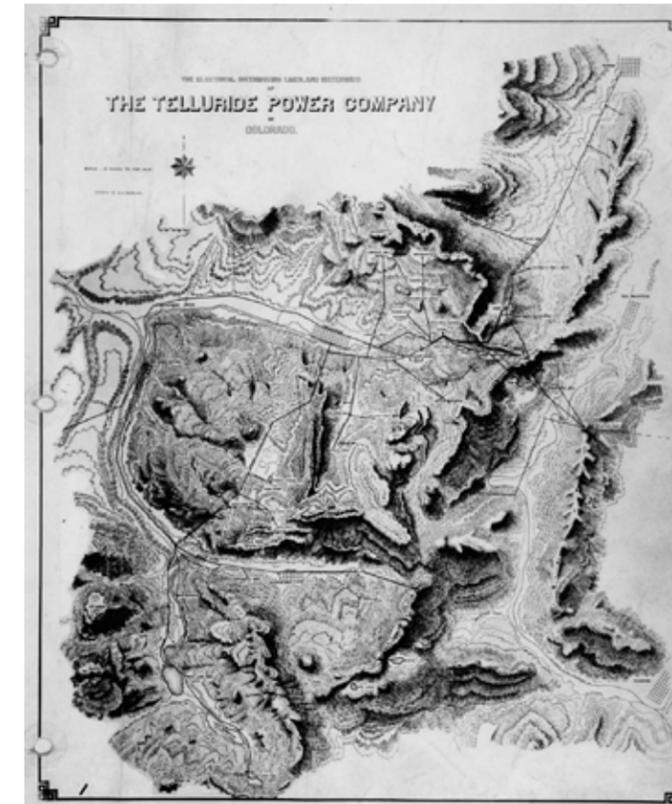
Telluride Power's grids grew, and rival utilities put up their own grids. In the ensuing decades, corporate behemoths swallowed up the Telluride Power Company and other local independent utilities, combining them to create "super power systems" that served tens of thousands of customers each.

By the early 1950s, most of the West was electrified, and the monopoly utilities had become corporate and political powerhouses, hell-bent on getting people to devour more electricity. The West's population boom made it easy for the monopolies to rake in more customers and cash, but the growth also threatened to overwhelm their respective grids, which remained isolated from one another.

In 1952, the U.S. Bureau of Reclamation proposed a new path forward with its "Study of Future Power Transmission in the West," a blueprint for an overhaul



Lucien Nunn, who founded the Telluride Power Company in 1891. Credit: Deep Springs College.



This map shows the electrical distribution lines of the Telluride Power Company in San Miguel County, Colorado c. 1900.



and enlargement of the Western electrical grid. The Bureau envisioned a fleet of gargantuan coal-fired power plants constructed near the Interior West's coal deposits. These centralized plants would then send juice hundreds of miles over high-voltage transmission lines to the "electrified homes" of Phoenix, Los Angeles and Las Vegas.

At the time, hydropower supplied more than half of the West's electricity, while coal provided just 10 percent. Under the Bureau's plan, coal-fired generation would increase by 3,000 percent and dominate the region's energy mix. The plan's authors also urged the utilities to tie their dozens of isolated networks into a single integrated Western grid. That way, when a drought diminished the hydropower from, say, Hoover Dam, the Columbia River system's dams could send electrons southward.

The Bureau study's vision of a coal-dominated grid had been realized. But the big, unified, networked grid? Not so much. Physically, the grid was integrated, but the unity didn't extend into the operational realm. Instead, 38 separate entities, each with its own team of pinheads, operate their own portions of the grid.

#### Supply and demand

For most utilities, particularly in the desert Southwest, the line delineating net demand is shaped kind of like a duck, with its belly sagging around midday, when demand is low and solar generation



The control room of California ISO, where modern day "pinheads" keep tabs on the state's high-voltage transmission grid. Credit: Rolf Schulten/Getty Images.

high, and a long, steep neck stretching back up in the late afternoon as folks kick on their air conditioners and solar drops off.

Pinheads don't like ducks. If the belly dips too low, there's a risk of over-generation, so the pinheads have to force power providers to shut down their plants, as happened in California this spring. But they still have to keep a whole fleet of backup generators – most often natural gas-fired – on hand and "spinning" to follow the demand curve back up that steep neck. That process creates a lot of emissions, and, as the neck gets longer, it becomes less and less sustainable.

It's one of the ugly realities of the pinhead's job: they must always have enough generating capacity around to meet the peak of the demand curve, even if that peak only lasts an hour per day.

An integrated grid, as its proponents envision it, would allow multiple utilities to share that generating capacity. It would tear down the borders between balancing areas, bridge the rifts between the now-distinct grids with new infrastructure, if necessary, create a centralized power market and put a single team of pinheads in charge of "following the load" of the entire West, with a huge fleet of generators at their disposal. Operators could then send excess California-generated solar power to New Mexico to meet that state's demand peak, and pump Wyoming wind power California's way to keep up with the late-afternoon air-conditioner rush.

A sort of integrated Western grid "lite" is already in operation, giving a sense of how the big grid would work. In 2014, the California Independent System Operator, or CAISO, which runs most of the state's grid, joined up with utility giant PacifiCorp to form a centralized market where they could buy or sell power in real time to make up for unforeseen supply-and-demand imbalances.

When California has extra solar, the market allows other participants to buy it far more cheaply than coal or natural gas, allowing neighboring utilities to displace some fossil fuel generation. The Energy Imbalance Market, as it's called, or EIM, has so far saved participants \$173 million, according to CAISO,

and helped California avoid major solar curtailments.

Yet the real-time EIM is a mere shadow of a truly integrated grid, because it applies only to imbalances, which make up just about 5 percent of the wholesale electricity market.

The bulk of the market is made up of day-ahead trades, where pinheads use sophisticated models to forecast the following day's net power demand on an hour-by-hour basis, then commit generators to ramp up accordingly. An integrated grid would take the EIM model and apply it to all power purchases. It would radically transform the way the Western grid works, and CAISO estimates that it would save participants more than \$1 billion per year.

For the most part, the current Western grid is technically ready for integration. Western politics, however, have thus far hindered the move to de-balkanize.

Conservative Western politicians worry about giving up control: Put them on the same grid with California and they might be nudged into complying with the Golden State's green agenda and high renewable-energy requirements. Coal-fetishizing lawmakers also are concerned that it would deal the death blow to their favorite fossil fuel. Their concerns are well founded, as the centralized market would put cheaper solar, wind and natural gas power in direct competition with the dirty old coal plants.

California Sierra Club chapters, meanwhile, worry the state's green goals could be diluted by sharing energy with coal-heavy regions, since that would also open up new markets for coal-power sales. And it's also possible that an Arizona utility might

purchase cheap solar from California, but use it to displace its own solar generation and keep its coal plants running, thus resulting in no net reduction in emissions.

But integrated grid proponents, and a number of independent studies, point out that coal-generated power is currently more expensive than other forms of power, thanks to cheap natural gas and a greater abundance of renewables. In the East, where regional grids and markets are the norm, coal is steadily losing ground. Even without an integrated grid, nearly every major Western coal plant has seen its generation decrease in recent years as utilities choose to draw from cheaper, more flexible generating sources.

The integration effort is moving ahead, albeit slowly. Most of the utilities that are involved in the EIM are eager to take the next step toward full integration. California lawmakers are hoping to ease neighboring states' concerns about loss of control by restructuring CAISO's board to include members from other states.

"The trend away from high carbon fuels is clear, and we believe irreversible," Zichella says. "Regional integration accelerates this trend."

The bold vision and courage to create an integrated grid, the 1952 Bureau of Reclamation study noted, "are needed to provide more power for the West, to conserve our natural resources and to keep America great."

Jonathan Thompson is a contributing editor at High Country News. He is currently writing a book about the Gold King Mine spill. Follow @jonnypeace.



Workers pose in 1891 with the new 100-hp Westinghouse synchronous alternator at the Ames power plant, near Ophir, Colorado. The plant was the first commercial system to produce and transmit alternating current (AC) electricity for industrial use.



**Accurate  
Detailed  
Accessible  
Structured**

**D  
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A  
The Movement  
for More ...**

By Alex Duwe, NKAO

As technology and procedures evolve, staying on top of data management is important to Reclamation. The usefulness of Geographic Information System (GIS) is becoming more prevalent on a daily basis, and the transition between old and new can be achieved with careful planning and organization. The transition to a central cloud-based GIS is upon us with the move to ArcGIS Online (AGOL). The need and interest is there, to have a complete comprehensive GIS of all Reclamation data, and the processes and standards are also evolving to make that a reality moving forward.

The Nebraska Kansas Area Office worked successfully with Frenchman Cambridge Irrigation District (FCID) to move data to a GIS. A comprehensive audit for Kansas Bostwick Irrigation District (KBID) No. 2 is ongoing with the NKAO Realty Specialist and GIS Specialist reviewing data of more than 160 sections

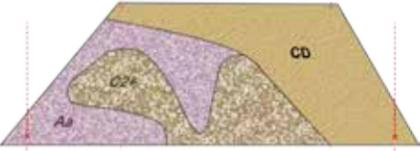
of land. The original AutoCAD drawings will be edited and revised to form a final master file which will be agreed on by both Reclamation and KBID.

Reclamation will have a solid foundation to begin the process of transferring KBID data into a GIS, once the audit is complete. It will be included with all Reclamation interests including facilities, land, and transportation and recreation data. As data standards are agreed to and passed down, the KBID data will be extracted, edited and imported into AGOL, which will be accessible agency wide. The end state for the transition is to complete data entries for all irrigations districts within NKAO.

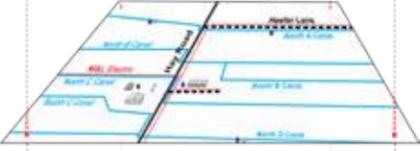
Through the process of auditing, editing and creating a new database, the finalized products will be beneficial for all irrigation districts in NKAO. The benefit of extensive work on mapping and gathering Reclamation data will be increase productivity, accuracy and accessibility.



**Geology**



**Development**



**Ownership**



**Land Use**

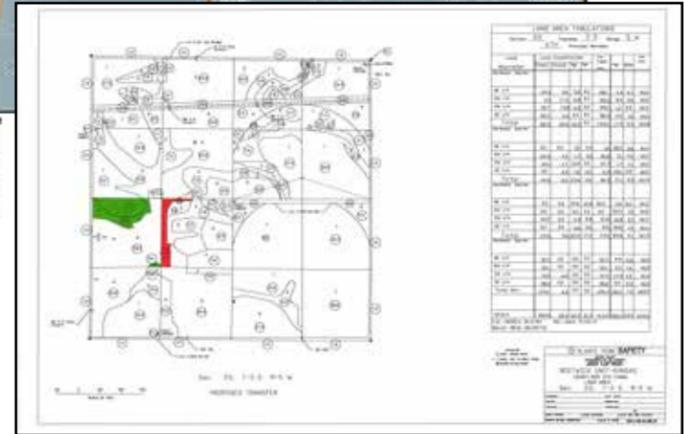


**Actual Terrain**




OBJECTID*	SHAPE*	Class_Number	Acres	Owner	Section	Township	Range
28	Polygon	1	44.63188	<N/A>	<N/A>	<N/A>	<N/A>
29	Polygon	ROW	7.568876	<N/A>	<N/A>	<N/A>	<N/A>
30	Polygon	2	4.750325	<N/A>	<N/A>	<N/A>	<N/A>
31	Polygon	<N/A>	1.388089	<N/A>	<N/A>	<N/A>	<N/A>
32	Polygon	<N/A>	22.140145	<N/A>	<N/A>	<N/A>	<N/A>

Updated GIS map showing Bostwick Unit-Kansas, Courtland 5th Canal land area. Lower right, original map - Bostwick Unit-Kansas.



- ◆ Slips, trips and falls constitute the majority of general workplace accidents.
- ◆ They cause 15% of all accidental deaths, and are second only to motor vehicles as a cause of fatality.
- ◆ Please take notice of all safety information distributed by BOR Safety Officers and management personnel.





# OPERATION: GOLDEN COYOTE



Soldiers patrolled in Humvees on the Fruitdale access road and encountered a grenade simulator and a smoke grenade in a burn barrel. Soldiers were injured and laying along the road. Unharmed soldiers dismounted Humvees, provided security and called in Air-Medivac. A UH60 helicopter landed and medivac injured soldiers. Soldiers used blank ammunition to aid in the realism of the training activity. All blank ammunition was fired from vehicles on the road or from soldiers on foot near or on road.

### By Patience Hurley, DKAO

Reclamation and the South Dakota Army National Guard (SDARNG) are in year four of a five year agreement permitting the Guard access to Reclamation lands at Belle Fourche Reservoir in Western South Dakota to conduct Operation Golden Coyote.

Golden Coyote is a military training exercise that ran from June 10 through June 24 this year.

Soldiers camped in Reclamation's Fruitdale Recreation Area on the north side of State Highway 212, while troop training was conducted between North Canal and the Off Road Vehicle Area. More than 200 soldiers performed dry span bridging and improved ribbon bridge training activities as part of the 2017 exercise.

Each year Operation Golden Coyote includes different units from around South Dakota,

surrounding states, and several foreign countries. As part of the exercise, they take time to participate in the "We Love Our National Guard" day.

This year, Christine Bestgen, an American Gold Star Mother was a featured speaker. Gold Star Mothers are those having lost a son or daughter in military service. The American Gold Star Mothers honor their fallen children through being of service themselves to



The SDARNG's 189th Medivac unit participated in Convoy Lane Training at Belle Fourche Reservoir as part of leadup training for the Golden Coyote Exercise.

veterans and patriotic events like "We Love Our National Guard" day.

Ms. Bestgen lost her son Dennis five years ago while he was serving in Afghanistan with the SDARNG's 200th Engineer Division. This year,

the 200th Engineer Division trained during Operation Golden Coyote at "Forward Operating Base Orman," so this was a particularly special event where Ms. Bestgen was able to honor her son. In addition to Operation Golden Coyote, the SDARNG's local

842nd Engineering unit trained at Belle Fourche Reservoir assisting Reclamation and the Belle Fourche Irrigation District on heavy maintenance projects. The 842nd utilized bulldozers, scrapers and

backhoes to replace deteriorated culverts on Owl Creek Road, install new culvert on Middle Point Road, shape and gravel new parking lots at South Canal Inlet and the Warm Water Slough Area, neatly stockpiled delivered rip rap for the Gadens Point rip rap project, and began reclaiming the sediment retention pond below Orman Dam. If weather permits, the 842nd will continue to reclaim the sediment retention pond during future weekend exercises.



Soldiers from the 200th Engineer Division conducting Dry Span Bridging and Improved Ribbon Bridge training activities on Reclamation lands at Belle Fourche Reservoir as part of the 2017 Golden Coyote Exercise.





# Great Plains Region Engineer of the Year 2017



**Kurt Anderson**

Kurt's engineering career began with the United States Forest Service (FS) in Chadron Nebraska. His time with the FS focused on electrical and mechanical designs for new and renovated structures throughout the nation.

Kurt participated in national team to develop standard designs for numerous facilities and helped develop the mechanical and electrical designs for the next generation of air-tanker bases for fighting wildfires. He also worked for the Army Corps of Engineers (COE). While designing small electrical and mechanical systems for COE, he began to work more closely with construction and architect-engineer (A/E) contractors to ensure construction was completed on time and within budget.

In 2011, Kurt accepted a position with the Bureau of Reclamation in Billings Montana. In 2014, he was instrumental in managing a design effort for a recreation

site on Canyon Ferry Reservoir in Montana, in order to get the project back on track, ensure construction, and ensure the \$10 million project could be awarded that fiscal year. The candidate's excellent efforts resulted in a successful project, and Goose Bay Campground/Marina is now an attractive recreation facility and a popular destination for campers, boaters, and anglers.

After working in the Construction Services group for four years, Kurt was promoted to the position of Supervisor of the Billings Division of Construction Services. In 2015, he was promoted to Regional Construction Engineer. He is responsible for all construction activities in the Great Plains Region including dozens of water resource rehabilitation projects, Safety of Dams activities, and power plant rehabilitations with a value in excess of \$50 million annually.



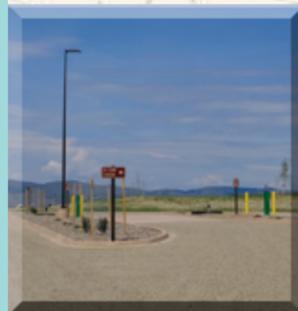
Berthed boats at marina.



Group Shelter.



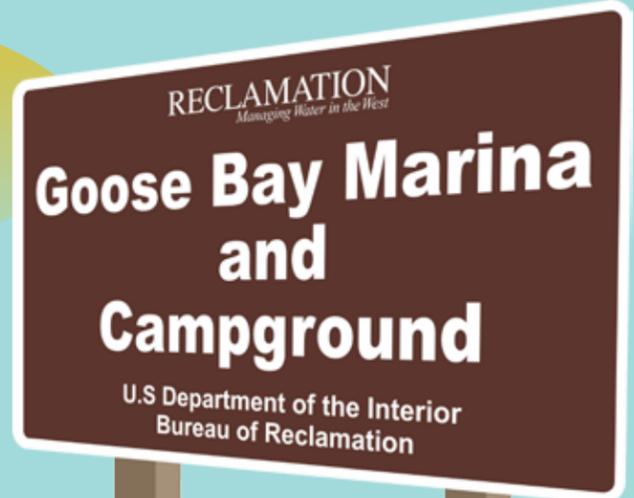
Big group shelter.



RV dump station.

## From Concept to Reality

Construction of the Canyon Ferry recreation site was completed in time for a concessionaire to be in place for the summer season. The site plan below was presented at public meetings and is overlaid with images of the finished facilities.



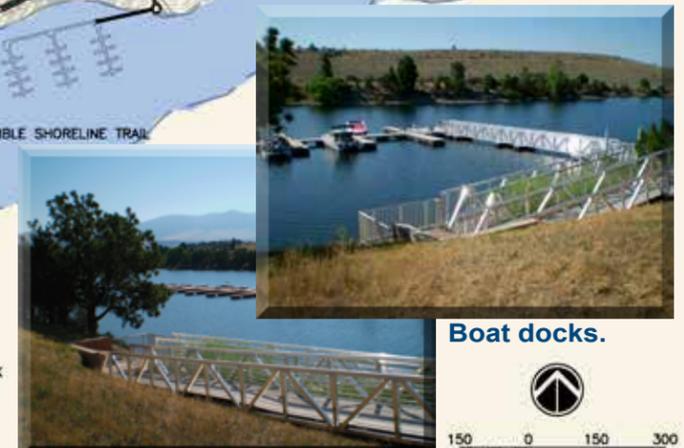
Store.



Fuel station.

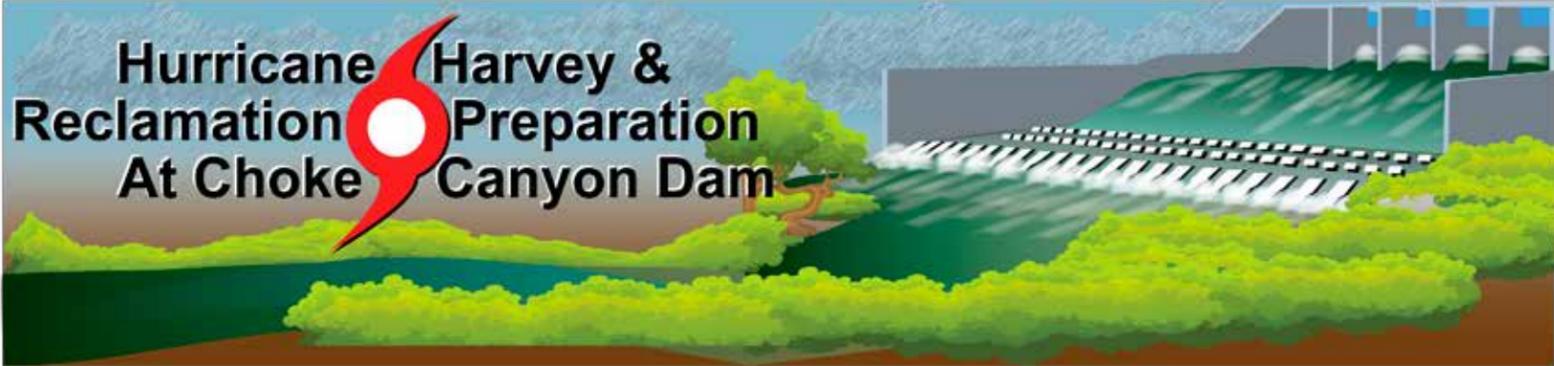


Shower house.



Accessible ramp to boat docks.

Boat docks.



By Matt Warren and Adam Milligan, OTA0

Prior to the arrival of Category 4 Hurricane Harvey along the Texas shoreline, Reclamation’s Oklahoma-Texas Area Office (OTA0) actively prepared for potential impacts to Choke Canyon Dam and Reservoir (Nueces River Project, TX). Choke Canyon Dam is a modern

Reclamation owned dam that is operated and maintained by the City of Corpus Christi (City). It is located between San Antonio and Corpus Christi, Texas.

Flood control benefits were not included in the original project authorization at Choke Canyon Dam and Reservoir, which means there is no allocated flood control pool, as commonly found at many Reclamation Reservoirs. As

a result, Reclamation has complete oversight responsibility for all decisions about operations and releases from Choke Canyon Dam once the reservoir is full. When this occurs, OTA0 is required to make controlled spillway releases into the downstream river channel. In preparation for Hurricane Harvey, OTA0 reviewed its Choke Canyon Reservoir Operations Model, which was created as a tool to aid in determining appropriate spillway gate operations by estimating the reservoir elevation based on river inflows and anticipated releases. Data input and output for this model requires coordination with several agencies to ensure Reclamation receives timely on-the-ground observations and/or forecast data.

Additionally, Reclamation must ensure that other agencies and authorities receive timely information regarding operational changes at Choke Canyon Dam. As conditions in the Gulf of Mexico deteriorated with the

development of Hurricane Harvey, OTA0 ensured 24-hour contact information was accurate and available. Furthermore, pre-determined loss of communication procedures were reviewed with appropriate on-site entities. Prior to landfall, OTA0 directly communicated with the Corpus Christi Weather Forecast Office and West Gulf River Forecast Office to verify procedures were in place for receiving and sending vital information, such as reservoir forecast and spillway gate operation data.

Reclamation specifically coordinated closely with the City to review the Standing Operating Procedures (SOP) and the Emergency Action Plans (EAP) for high flow events (i.e. Surge Operations). These pre-planned documents are crucial for implementing operational requirements and guidance for dam and public safety. Reclamation and the City communicated with one another over the weekend and both were ready to engage with local emergency managers and other authorities who are responsible for issuing public warnings and/or issuing evacuations to the



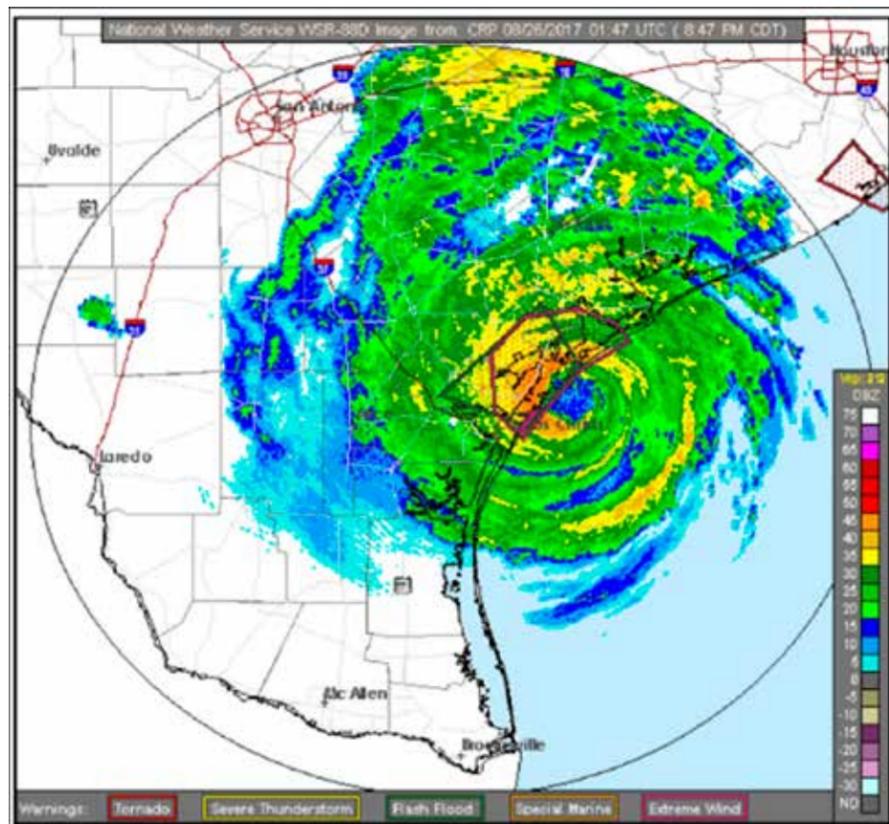
National Weather Service projected track of Hurricane Harvey.

population at risk.

Fortunately, many of these agencies recently practiced their response to Choke Canyon Dam surcharge operations in a Reclamation hosted Functional Emergency Management Exercise (i.e., simulated movement of personnel and equipment for emergency procedures) earlier this year and subsequently are familiar with pre-determined procedures. Additional preparation from OTA0 included reviewing stream gage information maintained by the United States Geological Survey and reviewing the plethora of available data and tools for monitoring Hurricanes through official

government websites.

Reclamation and many other agencies and authorities were prepared to respond to the operations of Choke Canyon Dam as Hurricane Harvey made landfall on August 25, 2017. However, the heaviest rainfall was immediately east of Choke Canyon’s drainage basin resulting in minimal inflows and no significant impacts at the Dam. Unfortunately, the story was very different for many who were impacted by the devastating storm as it moved east and out of Texas. As recovery efforts continue, our heartfelt support extends to all individuals affected by this hurricane season.



National Weather Service radar. August 25, 2017.



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