Safety Matters
Amazing People Accomplishing Important Work
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Safety Matters is published annually by Reclamation’s CPN Regional Public Affairs Office.
We want to hear from you. Please contact us at mcoffey@usbr.gov.
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Cover Photo: Yakima Basin Integrated Plan helix engineers Bob Schieffer, Brandt Demars, and Jason Wagner, on site at the Cle Elum fish passage facility inside the helix structure during the inaugural “wet-test” operation. Photo by James Reeves, 2023 Federal Columbia River Power System award winner for the professional photography category.
Welcome to our eighth issue of the Safety Matters magazine. Reflecting on 2023, I am so proud to be a part of the Columbia–Pacific Northwest Region, especially of the people dedicated to our essential mission: supplying water and power to our customers while retaining our safety-first value. I am grateful for each of you. It is because of you we succeed year after year.

Inside this issue you will find many successes and accomplishments of the CPN Region during the year. The first article introduces Jarrod Yates, Columbia Cascades Area Office’s new Safety Officer as he develops in his role to oversee the safety program for the area office. I also note the Hungry Horse crane replacement and the challenges involved in keeping our facilities modernized. Finally, the InReach article strikes at the CPN’s core commitment towards safety by ensuring workers have the necessary equipment to communicate when working in remote areas.

I believe this year reinforced our commitment to safety for one another by using all the tools available. The CPN’s hybrid work environment for employees incorporated a blend of telework, in-person, and virtual meeting technology to allow greater employee interaction. Great job!

I again want to express how humbled I am as I serve alongside each of you as we accomplish great work. Please join me in enjoying and sharing the safety stories from the region.

Jennifer Carrington
Meet Jarrod Yates, Columbia Cascades Area Office’s new safety manager

By Jarrod Yates, CCAO Safety Manager

I was born and raised in Yakima, Washington, on our five-acre family farm. After high school, I joined the Army and soon after deployed to Iraq, along with my two older brothers.

After retiring from the military, I returned to Yakima and joined the Operator’s Union, which helped me find pipelining jobs in the oil fields. I first went to North Dakota, and later, Oklahoma.

After several years, I started missing my family and applied for jobs in Yakima. Before long, I found a job opening at the Yakima Field Office. Working for the Bureau of Reclamation felt like a way to give back to an organization that was responsible for providing my family’s farm with water, as irrigation was the heart-line of everything we did on the farm.

In 2016, the YFO hired me as a craftsman because of my construction background and heavy equipment skills. As a craftsman, I worked on various habitat restoration and dam improvement projects. It was an honor to work on Schaake Habitat, Hyatt Dam, and Conconully projects where my talent as a heavy equipment operator and my safety culture merged. Projects like log revetments installation combine heavy equipment/excavator/backhoe and personnel/utilitymen on the ground to create a close quarters environment, which made me realize the importance of practicing good safety habits.

I recognized that I wanted to expand my skillset to include coordination of safety efforts and to elevate my credentials for leadership.

I completed the Columbia–Pacific Northwest Region’s Aspiring Leaders Program and the John Keys Program in 2019. In 2023, I graduated with a bachelor’s degree in general studies with an emphasis in history and leadership. Leveraging my skills as a heavy equipment operator and foreman in the oilfields across the Great Plains and the safety knowledge gained from the YFO, I applied for the CCAO Safety Manager position. Applying for this position felt right and a way to give back to those I worked with side by side. As a journeyman operator and a foreman, your role is to look after the safety of the personnel on jobsites; although, I learn everyday my experience in construction set the foundation for the beginning of my career in safety!

In my personal time, I love spending time with family and friends, time at my cabin, or running Jeep trails with my dog, Shea. I am truly fortunate to be part of the Reclamation family. I would not be where I am today without the mentorship of a few individuals at YFO who saw something in me. They encouraged me to strive for the next chapter in my Reclamation journey. They know who they are. Thank you for believing in me!

My favorite quote: Never ask someone to do something you wouldn’t do yourself.
Now that you know a little bit about Jarrod Yates, this article highlights one of the projects he oversees as the safety manager for the Columbia Cascades Area Office—the construction of fish passage at Cle Elum Dam.

Jarrod strives to prevent safety mishaps at jobsites by educating employees about current and updated safety procedures, advocating for employees who are exposed to hazardous elements, and working with supervisors and managers to ensure every project can be safely executed.

When on site at Cle Elum Dam, Jarrod checks on environmental factors like the weather forecast. The construction site hosts many types of heavy machinery and cranes, so wind, snow, ice, rain, and extreme heat are important considerations for the safety and health of all crew members. Jarrod also verifies that site-specific hazards are properly marked and identified. For example, he ensures boundaries are properly barricaded and taped off, and construction crews are aware of crane swing areas and open pits or trenches.

As the safety manager, Jarrod must have a thorough understanding and knowledge of safety regulations and guidelines such as Reclamation Safety and Health Standards; FIST 1-1, Hazardous Energy Control Program; job hazard analyses; position hazard analyses; and personal protective equipment.

Additionally, monthly joint safety meetings are held to communicate changes or to discuss issues that need to be addressed. These meetings provide Reclamation construction inspectors, engineers, superintendents, and foreman an opportunity to be heard or to shed light on safety issues and best practices throughout the CEFP project.

Jarrod says that safety to him is a culture that he embraces and truly believe in, and that people are irreplaceable. Since his tenure began as the CCAO Safety Manager in 2023, there have been zero mishaps or time losses from the CEFP project. “Safety is what brings all of us home at the end of the workday to our families and loved ones,” he says.
Meet Julie Weymouth—
New safety training and tracking specialist

By Shawn Smith,
CPN Regional Safety Manager

In October 2023, Julie was promoted as the new Safety Training and Tracking Specialist for the Columbia–Pacific Northwest Region. She has been in the Regional Safety Office since 1998. In her new position, she assists the area and project office safety managers and Regional Office employees with their safety training needs.

Not exactly new to the federal government

Julie’s first federal position was at the Boise Interagency Fire Center (now the National Interagency Fire Center) as a clerk typist.

She worked there for less than a year before being promoted with the Internal Revenue Service. Julie worked for the IRS for six years. The IRS was in the federal building in downtown Boise and, fortunately, the Bureau of Reclamation was also a tenant in the federal building. Being a friendly person, Julie became acquainted with some Reclamation employees. BOR’s Training Officer, Gerry Langen, got to know her and suggested she apply for a job opening in his office. She applied and started with Reclamation on December 29, 1991.

After working in the training office for a few years, Julie decided to go back to school to get her bachelor’s degree in environmental health science. She worked part time in human resources for the Snake River Area Office as she completed her education. After a couple of years, she transferred to an opening in the Regional Safety Office working for Nelson Ross because some of her classes were safety related.

Early on in her safety career, Julie went to several safety courses such as the National Safety Council’s Defensive Driving Course, OSHA’s
respiratory protection, hearing conservation, etc. Having these courses under her belt provided her the opportunity to teach safety courses throughout the Columbia-Pacific Northwest Region. Teaching was a challenging new skill, but it didn’t take long for Julie to get comfortable presenting in front of groups.

**Safety Changed her Life**

It’s hard to have a job in safety without it becoming a passion. Julie talked about it with everyone whenever she had the opportunity. In fact, Julie shared a memory about her oldest son Luke when he was about 10 years old. Their conversation ended with Luke stating, “Mom, I don’t think I ever want to drive.” Julie admitted she may go a “little” overboard when safety is a topic, but it’s hard not to when she hears about accidents and fatalities and how they could have been prevented.

**Julie’s Family and Personal Interests**

Julie has been married to her husband, John, for 29 years. They have two sons, Luke and Noah. She also enjoys her large extended family: five siblings and John’s six, combined with spouses, nieces, and nephews. The holidays are always fun.

Julie and her family love to camp in Idaho’s wonderful forests and have an annual family camping trip each August in McCall. This is a highlight of her summer since she gets to spend time with her brothers, sisters, nieces, nephews, John, Luke, Noah and, of course, and all of the dogs!

Besides spending time with family, Julie enjoys reading and spending time in her yard gardening. She also rehabs baby squirrels (yes, you read that correctly!). At the beginning of the year, she had three squirrels in the house. They were released early March in her backyard. Julie admits, “We were all looking forward to that!”

**In Closing**

Julie says, “I love working in the Regional Safety Office. I work with amazing people! Everyone in my office has a passion for safety. For anyone needing safety assistance, please email or give me a call. I’m happy to help.”

One of Julie’s rescue squirrels, Brody, at five weeks old.
In the early 1980s, the Bureau of Reclamation and Bonneville Power Administration were authorized to fund the construction of new fish screens and fish ladders on major diversion dams throughout the Yakima basin. Diversion dams divert water from a river, and in Reclamation’s case, for irrigation and power production.

Prior to Reclamation involvement, fish screens were constructed and maintained by federal and state fisheries agencies and installed on some diversions as early as the 1920s. By the 1980s, existing fish screens and ladders were at the end of their life span and did not meet modern fish passage criteria.

As part of the project, Reclamation established a local construction office to work on fish screen and fish ladder design, contracting, permitting, and inspection requirements. The project included replacing antiquated fish screens and ladders with modern technology. A new shop was constructed at the Yakima Field Office, so staff could perform operations and maintenance on the drum screens. Some of the drum screens are 18 by 20 feet, so the new shop had to be large enough to accommodate the project.

In 1984, the first Reclamation-owned fish passage site was constructed at the Sunnyside Diversion Dam. Sunnyside has a canal that diverts up to 1,300 cubic feet per second for the Sunnyside Valley Irrigation District. Fish passage construction at other diversion dams in the Yakima basin was completed by the mid-1990s.

YFO now has the largest fish passage program in Reclamation. They have 20 employees that perform O&M on more than 18 fish ladders and 40 fish screen sites on water diversions throughout the Yakima basin.

During the irrigation season, YFO staff conducts daily, weekly, and monthly inspections and any necessary maintenance of mechanical and electrical systems on the fish screens and ladders. The staff ensures proper operation according to site-specific, standard operating procedures.

**Most fish screens in the Yakima basin are “rotating drum” screens that turn continuously to avoid becoming plugged with debris.**

Debris removal is a significant O&M activity. During the spring runoff, the river carries massive amounts of material from small branches to large trees downstream. These can clog waterways, depositing sediment and blocking fish passages. In the fall, large amounts of aquatic vegetation die off and break free, clogging fish screen and fish ladder trash racks. It’s imperative that the fish ladders stay clear of debris for safe fish passage to occur.

YFO O&M Supervisor II, Kris Butler, said their biggest safety concerns have to do with the access to the fish ladders. Some of the
ladders are accessed by taking a cable car across the river. When flows reach a certain level, employees are restricted from accessing some sites.

Kris said, “The work that we do falls under both our position hazard analysis and job hazard analysis to identify and mitigate hazards.

We stay in contact with our hydrology department to check river flows and expected high water events. We also monitor the weather and address any changes in conditions before we start work.”

YFO staff are trained to use appropriate personnel protective equipment on the work being done. That may include life jackets, gloves, eye protection, hearing protection, chainsaw chaps, steel toe boots, hardhats, fall protection, and high-visibility vests. Because most of their annual maintenance occurs during the winter when there are snow and ice to deal with, they also wear cold/wet weather clothing.

When the irrigation districts water down the canals in the fall, YFO Fish Biologist Patrick Monk and the Yakama Nation fisheries will stand up a team to remove any fish that may have made it past the headgates to the screen site (after the headgates have been closed). Because salmon, steelhead, and other fish species migrate year-round in the Yakima River, the fish ladders are only shut down for major floods or emergency repairs. Patrick works with staff and other agency partners to evaluate fish survival at fish screens and diversion dams and makes recommendations for operations and facilities to improve fish survival while meeting project operating objectives.

During shut down, O&M staff start annual maintenance. They first lock out the canal’s headgates. They remove all screens (this includes both the rotating drum screens and the belt screens). Staff inspects them for damaged seals, damaged screen mesh, or any missing or damaged hardware. If a screen is damaged to the point that it cannot be fixed in the field, it is brought to the YFO shop and rebuilt (see Figure 1). They check for damage or wear to the structures and facilities and correct as necessary. They also inspect the fish bypass system, which is designed to return the fish back to the river.

The O&M process for the Yakima basin fish passages is arduous, and the fish passages depend on the hard work of YFO staff. The fish thank you!
Completed in 1953, Hungry Horse Dam sits 10 miles northeast of Glacier National Park on the south fork of Flathead River. This landscape is home to a variety of wildlife, including bears, moose, elk, bighorn sheep, mountain goats, wolves, and mountain lions.

In 2022, the Hungry Horse Field Office addressed a series of major repairs, including hydro-generator and turbine overhauls, excitation system upgrades, and a digital governor installation. Successful execution of these tasks hinged on the reliability of the facility’s five cranes.

In November 2021, contractors initiated the replacement of five 70-year-old cranes. Due to their age, the cranes did not comply with current national crane standards. State-of-the-art cranes, featuring modern technology such as cameras, electrical bus work (powering the crane), guard rails, and fall protection, were introduced to replace the aging equipment.

The installation of two, 290-ton cranes before the completion of the building presented challenges in this demanding project, prompting engineers to devise intriguing approaches. Extensive planning and coordination were necessary to determine the methods for cutting apart the old cranes and removing them from the powerhouse. This was the most difficult part of the project.

The process for cutting the cranes required a critical lift plan, meaning the crane operation involved additional risks. In this case, the critical lift was in place because of the cranes’ sizes,

“The Great Replacement”
at Hungry Horse Dam

By Julie Weymouth, Safety Training & Tracking Specialist
weight, and high susceptibility of damage to the building and surrounding equipment. Additionally, the operator had limited visibility. He was outside the powerhouse working the hook through the hatch in the roof to the inside of the facility.

The 125-ton gantry crane on top of the dam was cut into pieces and removed. The replacement crane was installed in sections. The other two cranes were small, and their replacement went smoothly.

During the entire process, daily activities continued throughout the plant. This required establishing proper construction zones and safe work practices and included demarcating walkways and coordinating hot work operations (e.g., welding) and aerial boom movements to minimize foot traffic through the area while these tasks were taking place. Personnel also monitored the air when gas-powered equipment was used. Gas and diesel engines emit carbon monoxide, which is an odorless, poisonous gas.

Completed on time in 2023, this project spanned just over two years. It provided a valuable experience for Hungry Horse employees who collaborated efficiently with the contractor on this large-scale endeavor, prioritizing safety above all, contributing to zero mishaps.

Section of old crane being removed.

Section of new crane being hoisted into place.

On the completion of the HH dam in 1953, it stood at a height of 564 feet, ranking as the third largest and second highest concrete dam in the world at that time.
Inspection process at Teton Dam tunnel served as a valuable learning experience

Johnathon Owsley, Civil Engineer at the Heyburn Field Office

In October 2023, civil engineer Johnathon Owsley (Heyburn Field Office), and general maintenance mechanic Mike Guardipee (American Falls Dam), were scheduled to inspect the Teton Dam power tunnel. The tunnel had not undergone inspection since the retrofit of the pumping station in the late 1970s, following the Teton Dam failure. Johnathon recounts the story of the inspection.

Mike and Jonathan planned to inspect the 2,700-foot-long tunnel, measuring 13.5 feet by 6.75 feet. Their strategy involved securing the side gate intake structure to prevent water inflow, draining the water on the downstream side, and subsequently examining the power tunnel from the discharge pipe.

Due to the complex nature of this area and the uncertain atmospheric conditions, such as oxygen levels, the tunnel was classified as a permit-required confined space, or PRCS.

A confined space is a defined as a space that is large enough for entry, has restricted entry and exit points, and is not intended for continuous occupancy. According to Section 14 of the Reclamation Safety and Health Standards, which focuses on Confined Spaces and Permit-Required Confined Spaces, the term “permit-required confined space” is used to identify a confined space that exhibits one or more of the following characteristics:

1. Contains or has the potential to contain an atmospheric hazard
2. Has the potential to engulf an entrant
3. Has an internal configuration that could trap or asphyxiate an entrant
4. Contains other recognized serious safety or health hazards
Because the tunnel is considered a PRCS and spans 2,700 feet, Mike, Joe Mauer (Ririe Dam general maintenance mechanic work leader), and Jonathan visited the site multiple times in the spring to work out the inspection details. It was determined that we needed to be trained in confined space awareness.

To avoid the cost and complications of training our staff in confined space rescue, we contacted the local fire department to inquire if they could serve as our rescue team on the inspection day (as PRCS entries mandate the availability of a rescue team). The Madison County Fire Department showed keen interest in assisting us.

Reclamation agreed to cover the expenses for the fire department’s retraining of their staff in respiratory protection and confined space rescue. The fire department supplied the rescue plan as required for PRCS. Additionally, Reclamation authorized the fire department to utilize the tunnel for extra training once the inspection concluded.

A PRCS permit was created, which outlined specific details such as dates, times, names of authorized entrants, attendants, and entry supervisor, as well as hazards and conditions of the space. Given the tunnel’s length, verifying adequate airflow throughout was crucial. Continuous monitoring of the atmosphere to maintain oxygen levels between 19.5% and 23.5% was necessary. The permit specified air flow testing at five sample locations within the tunnel upon entry and every 100–150 feet, with documentation during the inspection.

The entry plan comprised of two entrants: Jonathan and Mike. Jonathan inspected the tunnel for issues such as cracking, delamination (where concrete fractures into layers), and concrete erosion, while Mike monitored air flow, atmospheric conditions. Both communicated with entry attendant Joe Maurer via radio.

The Madison County Fire Department had an ambulance and a confined space rescue team onsite, consisting of three, two-person teams. To address potential radio communication issues, the rescue plan included using the teams as “human repeaters,” each carrying a portable radio to rebroadcast the signal along different sections of the pipeline.

Unfortunately, the intake gate didn’t seal, leading to the cancellation of the inspection. Despite this setback, it served as a valuable learning experience. Guardipee and Owsley plan to conduct the inspection in the fall, incorporating lessons learned. This time, they’ll dewater the front of the intake area and the downstream area to better assess the intake gate and tunnel’s condition. With groundwork already laid, they anticipate a smooth inspection process.

Discharge area after pumping water out.

Location map of where the 2,700-foot-long tunnel inspection occurred.
In August 2021, the Reclamation Safety and Health Standards released Section 43, *Lone Worker and Remote Worker Safety*. This new RSHS section requires offices to develop and implement a program for tracking employees who work or travel alone or who work in remote locations with limited or non-existent communication.

Many offices and facilities throughout the CPN Region were already utilizing satellite emergency notification devices, or SEND, for their employees. However, most of those devices were nearing obsolescence.

The Regional Safety Office began researching SEND and, with the help of many Regional Office groups, chose the Garmin inReach GPSMAP 66i satellite devices. Over 70 devices were ordered to replace the existing ones. It is crucial that employees have reliable communication when working in remote locations and, most importantly, if a medical emergency occurs.

In May 2023, the Regional Director signed memorandum [Accounting for Employees Conducting Field Work at Facilities or Locations with Limited or Non-Existent Cellphone Radio Communications.pdf](https://usbr.gov). This memorandum states supervisory responsibilities for employees’ field-related work in remote locations and whether the issuance of a SEND is appropriate.

RSHS Section 43 states that field-related work must be reviewed by the supervisor during the planning phase. Supervisors also may consider whether travel routes may have limited or non-existent communication. In addition, supervisors must perform the following actions:

- Account for their lone and remote workers in the field or at remote sites.
- Maintain a daily check-in process for lone and remote workers.
- Identify available emergency services during the risk assessment and/or job hazard analysis process.
- Make a determination if the field-going employee will be within a limited emergency services response area.
- Develop a contact plan and emergency services response plan in collaboration with field-going employees.
- Immediately notify their manager if an employee has missed their check-in time.
- Ensure employees comply with the applicable lone worker and remote worker safety program.

Employees need to understand their responsibilities before traveling to remote locations with limited or non-existent communication. When cell service is limited or unreliable, employees are required to check out an inReach device and follow the procedures in the May 2023 memorandum.

The CPN Region has a contract with the Bureau of Land Management’s Mission Support Communication Center. The MSCC is a dispatch center that monitors employees who have checked out an inReach device. These devices allow text communication from anywhere in the CPN Region.
The May 2023 memorandum requires employees to provide specific information to the MSCC before leaving the office by calling or emailing. This ensures that the MSCC knows when the employee is leaving, when they’re expected back, their destination, etc.

A SEND User Guide was created to help employees set up their inReach device, as the process can be tricky to navigate. This detailed, 91-page guide contains instructions with screen shots to ensure employees can correctly set up their devices with their contact information in the preset messages, along with editing other settings within the device.

Regarding lone and remote worker safety, Regional Safety Manager Shawn Smith said, “It’s imperative our employees have reliable communication when working in the field to update their supervisor on travel status, delays, or to summon help if needed. Noah worked with employees throughout the region to ensure their devices were uploaded correctly. He put a great deal of time developing the CPN SEND User Guide which will be used for many years. Thanks to Noah, the SEND program is working effectively.”

For more information, please visit RSHS Section 43 and the Region’s Accounting for Employees Conducting Field Work at Facilities or Locations with Limited or Non-Existent Cellphone Radio Communications memorandum.

Columbia–Pacific Northwest Safety Journals are now available!

In June 2017, the University of North Carolina presented their safety culture assessment results for the CPN Region. A major recommendation from the assessment was for the CPN Region to utilize a participatory process that engages employees in improving our safety culture.

The safety journals provide this employee engagement by recognizing and rewarding individuals who proactively educate, communicate, and participate in safety. As one of Reclamation’s core values, safety supports the overall mission with a goal to sustain a lasting and meaningful safety culture in the CPN Region.

The journals are a collection of safety-related activities designed for employees to engage and share self-selected safety topics with their co-workers. The Board of Directors supports the safety journals as an approved work activity to help reinforce the commitment to safety.

How does it work?

1. Volume 1 must be completed before you can start Volume 2. If you completed Volume 1 prior to December 2022, you could complete Volume 1 a second time and receive a STAR Award of $225 again!

2. If you have already completed volume 1 in the past, you can go right to volume 2. Complete Volume 2 and receive a STAR Award of $350.00.

3. Normally, a journal must be completed between January 1 and December 31 of the same year. However, for this round only, we are allowing you to complete either or both journals between January 1, 2023, and December 31, 2024.

4. Completed journal(s) must be submitted by the end of each calendar year, with payment expected in February of the following year.

Example: If you complete & submit a journal on October 21, 2023, the journal will be processed December 31, 2023, along with all other submitted journals for that calendar year. Your STAR Award will be processed by February 2024.

Completed journals are to be mailed to Shawn Smith at CPN-1900.

Prefer to complete your journal electronically?

Both safety journals can be found by visiting the following link - Columbia–Pacific Northwest Region | Bureau of Reclamation (usbr.gov)

Like the hardcopy journal?

Contact your local safety office or email Shawn Smith at smsmith@usbr.gov.