



Aethon Proposes to Dump Polluted Waste into Madison Aquifer

They're baaccck! That's right, Aethon Energy is back before the Wyoming Oil and Gas Conservation Commission (WOGCC) trying again to get approval for their previously rejected proposal to inject 20,000 barrels per day of polluted oil and gas wastewater from the Moneta Divide field into the Madison Aquifer. Because this is a freshwater aquifer, Aethon is required to request an aquifer exemption, which allows industry to pollute an aquifer for industrial purposes and exempts it from any further protections under the Safe Drinking Water Act.

The facts remain that both the Wyoming Water Development Commission, the DEQ, and the Wyoming Geological Survey previously noted that the Madison Aquifer has the best potential for developing high-yield wells in the future and is critically important for citizens in the Wind River and Bighorn Basins.

wastewater into a potential drinking water aquifer.

Back in 2011, Encana initially proposed exempting the aquifer for wastewater disposal. We successfully fought the proposal for several years working through the WOGCC and the Environmental Protection Agency (EPA) systems to ensure the rules and public hearing process for an aquifer exemption were followed. In March of 2013, the WOGCC, after a long discussion and debate, voted 3 to 2 to allow Encana to proceed; fortunately, that was not the end of the story because the EPA has final

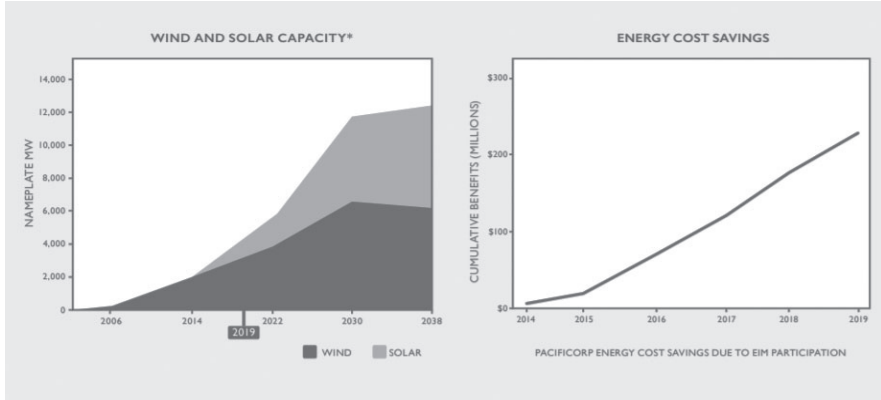
The Wyoming Department of Environmental Quality recently rejected Aethon's proposal to increase their disposal of polluted wastewater into surface streams flowing to Boysen Reservoir and the Wind River because of impacts to those water bodies and tributary streams. So, Aethon's strategy is to try and get permission to dump their polluted

approval of all aquifer exemptions. Due to serious procedural concerns and objections filed by Powder River and our allies, the EPA sent a detailed letter to the WOGCC the following month explaining that the commission had failed to follow the process of exempting a freshwater aquifer from the Safe Drinking Water Act.

....continued on page 11

Public Service Commissioners Question Rocky Mountain Power Energy Plan

In an unprecedented manner, the Wyoming Public Service Commission (PSC) just wrapped up an extensive "investigation" of Rocky Mountain Power's 20-year energy plan released in October 2019. Called an Integrated Resource Plan (IRP), the plan lays out results from company modeling runs and analysis that selects the mix of supply-side resources that presents the lowest cost and the least amount of risk to customers. Through its investigation, the PSC determined that the IRP had deficient flaws, rendering it unusable for future proceedings. In response to these deficiencies, the PSC directed the company to jump through many more hoops and conduct new analysis in its upcoming 2021 IRP. The PSC will also carry out a review on whether new regulations are needed to give them additional authority to review IRPs in the future.



help inform the PSC about the environmental risks of carrying on with a generation mix that is heavy on coal. We supported Rocky Mountain Power's plans to gradually and carefully phase out the most expensive coal units on its system and replace that coal generation with a mix of renewable energy and battery storage.

The PSC, however, had other motives, including pushing the company to consider carbon capture technologies that would prolong the life of already uneconomic coal units with expensive pollution controls fraught with technical challenges. The PSC also questioned the grid reliability consequences of phasing out coal plants; this was in spite of Rocky Mountain Power conducting the most robust reliability analysis ever done in an IRP. Commissioners questioned the use of battery storage, claiming the technology to be unproven.

Powder River intervened in the investigation to protect the interest of our members to have the lowest possible power rates and to

Another key intervener in the proceedings was the Coalition of Local Governments, representing county commissioners and other local

....continued on page 11

Message from the Chair



Dear Powder River members and friends,

As 2020 draws to a close, I find myself wishing it would hurry up, as if the end of the calendar year would somehow put a stop to the unpredictable jolts that have disrupted everyday life these past nine months. Of course, this wish is delusional. The pandemic endures, and (at this writing) infections are spiking in Wyoming. The opposing sides on the political battlefield over which the disease spreads have become more deeply entrenched and clamorous. New cases, more fatalities, and sharpened political attacks: all are rising, and each new eruption blindsides me. To switch metaphors, I have felt at times as if I have been living in a popcorn machine, the day's events totally unpredictable. Anticipating disruption, I remain poised for the next "pop," the next alarmingly explosive surprise.

I am not without refuge, however. The mountains and plains of our state—especially during this glorious Fall—ground me in the more predictable transitions of the natural environment. Fortunately, I have been spared living in an area hit by raging wildfires or destructive winds. And so, I find solace in putting the garden to bed, walking under the gold and russet canopy in the park or amidst the singing grasses along a mountain creek, sampling the array of squash, gourds, jams, and potatoes at the farmer's market, scoping the snow accumulating on the peaks, or tuning into the "V" of geese honking their way south. My senses drink in these soothing sights, odors, and sounds, and I relax into their familiarity. There are surprises here too: a flicker sonorously sharpening his beak on a neighbor's metal chimney, a brilliant red maple poking through a stand of yellow cottonwoods, a grey squirrel running along the path, a gigantic green apple stretching her jaws. But these surprises delight rather than alarm.

Powder River is another refuge for me. Although buffeted by the wider challenges, our staff has responded nimbly, and they and our board of directors remain dedicated to our organization's goals. Most impressively, our members are a constant source of support, raising their voices and offering assistance when needed. It is a comfort for me to know that the changes which we are experiencing within the organization take place within the context of a reliable tradition. Treasured board members and staff retire, and new people join our ranks. We honor and gratefully thank those board members who are departing—Judy Leggett, Roger Davidson, and Kevin Lind—and who have given so much over the years, and we look forward to their continued participation as enduring Powder River members. We wish Hesid Brandow the best, as she retires from the staff to pursue writing and other creative endeavors. We appreciate Hesid's fine work, especially on the *ad valorem* tax issue, solar energy (including community solar), as well as her memorable videos. And we welcome into the full-time ranks Michele Irwin, who as a contract organizer, spearheaded the excellent series of webinars, "Reclaiming and Growing Wyoming's Future."

Finally, no review of Powder River's milestones would be complete without marking the 30th anniversary of Jill Morrison's tenure with PRBRC. To mention all Jill's accomplishments would require a special issue of the *Breaks*. Those with long memories will recall her persistently effective work on CBM wastewater, Fortification Creek, and oil and gas bonding. But it is her brilliant leadership which I have most fully admired while working with her this past year. Jill's ability to simultaneously write successful grants, track legislative committees, mentor staff, communicate with the press, meet with a sub-committee, develop strategies with affiliates, write to donors, all the while staying focused, knowledgeable and helpful, have impressed me the most. Shannon Anderson said it best, "this a woman who doesn't give up. She puts her all out there for all of us, our members, on any number of issues. She is knowledgeable (her brain is practically an encyclopedia of information on energy in Wyoming), insightful, strategic, and she understands the value of helping those that often don't have a voice...She is respected by all of her adversaries, numerous allies and funders, and our members. As many people have told me over the years, just imagine what Wyoming would be like without Jill Morrison."

With gratitude,

A handwritten signature in cursive script that reads "Marcia Westkott". The ink is dark and the signature is fluid and personal.

Powder River Basin Resource Council (Powder River) is a grass-roots organization of individuals and affiliate groups dedicated to good stewardship of Wyoming's natural resources. Powder River was formed in 1973 and stands for the preservation and enrichment of our agricultural heritage and rural lifestyle; the conservation of Wyoming's unique land, minerals, water and clean air consistent with responsible use of these resources to sustain the livelihood of present and future generations; and the education and empowerment of Wyoming's citizens to raise a coherent voice in the decisions that will impact Wyoming residents' environment and lifestyle.

Powder River is a member of the Western Organization of Resource Councils (WORC). WORC member groups are Dakota Resource Council, Dakota Rural Action, Idaho Organization of Resource Councils, Northern Plains Resource Council, Oregon Rural Action, Western Colorado Congress, Western Native Voice and Powder River Basin Resource Council.

The services provided by Powder River include public education, community organizing and lobbying as permitted on behalf of its membership. Powder River is a non-profit, 501 (c)(3) tax-exempt organization.

Membership dues: \$30 for individuals, \$50 for families and \$20 for students and senior citizens. Powder River is dependent on contributions for its work; contributions, large and small, are welcomed.

Active Affiliate Organizations

- Alliance for Renewable Energy (ARE)
- Clark Resource Council (CRC)
- Cheyenne Area Landowners Coalition (CALC)
- Pavillion Area Concerned Citizens (PACC)
- Ranchers & Neighbors Protecting Our Water (RNPOW)
- Sheridan Area Resource Council (SARC)

Board of Directors

Chair.....Marcia Westkott
Vice Chair.....Joyce Evans
Secretary.....Christy Gerrits
Treasurer.....Stacy Page
Judy Leggett, Wayne Lax, Roger Davidson, Shiva Polefka, Gillian Malone, DJ Purcell, Joan Tellez & Bob LeResche

Staff

Executive Director-Jill Morrison
Executive Administrator-Stephanie Avey
Staff Attorney-Shannon Anderson
Communication/Dev. Dir-Robin EH. Bagley
Organizers-Hesid Brandow & Pennie Vance, Sheridan, Monika Leininger, Lander and Michele Irwin, Green River.

Powder River Offices:

Main Office:
934 North Main St
Sheridan WY 82801
Ph: (307)-672-5809
Fax: (307) 672-5800
Email: info@powderriverbasin.org
Web: powderriverbasin.org

Lander Office:
958 Lincoln
Lander WY 82520
Ph: (307)-286-5531

Powder River Breaks

Editor: Robin EH. Bagley
Layout: Stephanie Avey
Photos by Powder River staff and members.

Lander Climate Action Network Heads to City Council

Powder River has recently been working in collaboration with Lander residents, Wyoming Outdoor Council, and National Outdoor Leadership School (NOLS) to follow in the footsteps of other communities across the state that are decreasing their carbon emissions and promoting smart investments in renewable energy. Through this partnership, the grassroots, non-partisan group Lander Climate Action Network (LCAN) has formed with a mission to reduce greenhouse gas emissions in Lander through a commitment to environmental sustainability, community engagement, and economic viability.

LCAN has formed goals and objectives to increase the sustainability and resilience of the Lander community. These goals include a partnership with the City of Lander to conduct research, help find funding opportunities to complete a baseline emissions inventory, establish a citizens' advisory group, create emission reduction goals, and formulate a city-wide climate action plan. LCAN has met with city



Katie Oram of LCAN presents to the Lander City Council about options for reducing carbon emissions.

councilors individually to garner support and recently was invited to present at a city council meeting.

On Sept. 22, LCAN gave a presentation introducing themselves, their mission and vision, and how other cities in the region, comparable in population and resources, have gone carbon neutral. Other cities like Whitefish, MT; Hailey, ID, and Laramie were highlighted to show how climate-conscious efforts have reduced costs of city facilities and have maximized the effectiveness of taxpayers' dollars.

"I think this is definitely needed here," said City Councilor Chris Hulme. "I think we definitely need to take up these folks with their time and energy that they want to put into the city's future."

LCAN will revisit the city council in the coming weeks to support a mayoral proclamation on climate action and will continue to work closely with the city to meet LCAN's goals and mission. Powder River will continue to assist and support these efforts.

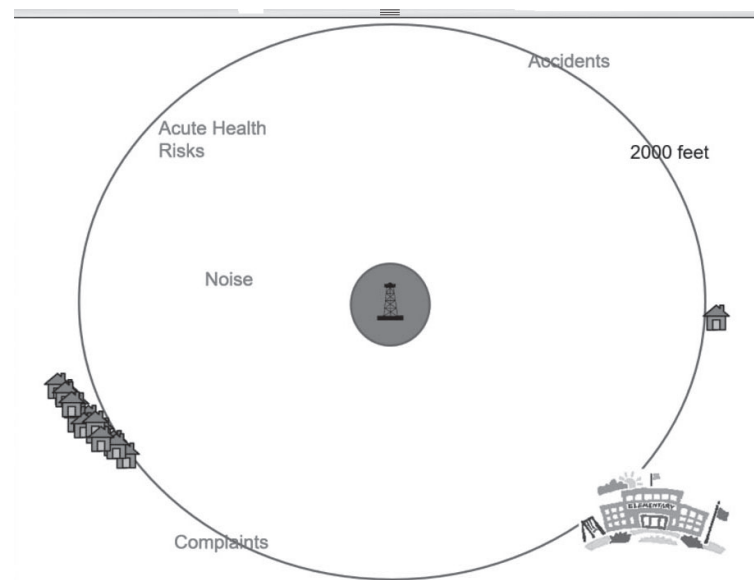
**Monika Leininger
Powder River Staff**

CALC's Panel Shines Light on Oil & Gas Air Pollution Research

The Cheyenne Area Landowners Coalition (CALC) held its 2020 Annual Meeting and provided an online panel discussion of air quality experts reviewing the impact of oil and gas air pollution on public health and safety. Panelists included leading researchers on air quality Dr. Lisa McKenzie, an assistant research professor at the Colorado School of Public Health, and Dr. Robert Field, a senior research scientist at the University of Wyoming. The panel was moderated by Laramie County Commissioner Linda Heath. The experts discussed how exposure to nearby oil and gas development can be concerning to public health and well-being.

Field shared research he has conducted in the Upper Green River Basin near Pinedale on oil and gas pollution and illustrated the impacts of wintertime ozone resulting from dense drilling sites in the area during cooler winter temperatures.

"We can look out the window, and we can see the smoke, for example, at the moment, but one of our problems is when we deal with toxic air pollutants that may be invisible, odorless and tasteless," said Field.



McKenzie's research has instead focused on the health impact of oil and gas development within 2,000 feet of homes, schools, and businesses. "Asthma, congenital heart defects, low birth weights, preterm birth, cardiovascular disease indicators, people with these conditions are more likely to be living nearer the oil and gas well sites than further away from them," McKenzie said.

Both experts agreed that Wyoming's oil and gas well pad setback distance of 500 feet from homes, schools, and other structures might not fully protect public health. McKenzie highlighted key studies that are being

used to shape oil and gas policy reform in Colorado, including an increase in setback distances. Both studies identified that acute, short-term health risks begin to increase at approximately 2,000 feet from oil and gas well sites and rapidly increase as that distance becomes shorter.

"I personally would prefer to see no oil and gas wells in residential areas," Field said. "If they are there, then the 2,000-foot setback is, for me, an absolute must."

To view a recording of the online panel, check out CALC's new website at cheyennelandowners.org.

**Monika Leininger
Powder River Staff**

Wamsted, Schlissel: Glenrock's CO2 Capture Facility Hopes are Based on Wishful Thinking

Glenrock Energy wants to invest in a carbon dioxide (CO2) capture facility at PacifiCorp's Dave Johnston Unit 4 coal plant in Converse County. The facility would inject CO2 captured from the coal plant into the ground to force more crude oil out, a process known as enhanced oil recovery (EOR). However, Glenrock's proposal is based on questionable assumptions and unrealistic projections about the viability of retrofitting the unit, which the utility is planning to close in 2028.

For starters, the company, led by CEO Terrence Manning, claims that the cost to retrofit will be just \$480 million, a figure that has no relationship to reality given that it is 71 percent lower than the cost of the only other power plant carbon capture and storage unit in the U.S., the recently mothballed Petra Nova facility near Houston, Texas.

In recent testimony before the Wyoming Public Service Commission, Manning asserted that the facility would capture 100 percent of the CO2 produced at the site. This, too, bears no relationship to reality, as the Petra Nova plant has only been able to capture roughly 80 percent of its CO2 emissions. Even that 80 percent figure overstates Petra Nova's net effectiveness in capturing CO2, since it does not include the emissions from the separate gas plant built to power the CO2 capture equipment. Factoring in those emissions pushes the Texas plant's capture efficiency down to about 70 percent.

Beyond the issues of cost and running efficiency, there are serious doubts about whether there is money to be made from using captured CO2 for enhanced oil recovery activities in Glenrock's oil fields. Recent events call into question this business model.

NRG Energy, the operator of the Petra Nova carbon capture plant, in late July acknowledged that they had put the facility into "mothball" status this spring because low oil prices meant that the economics of using captured CO2 to produce additional oil no longer held. The mothballing of Petra Nova occurred after NRG wrote off almost its entire \$300 million investment between 2016 and 2019 due to low oil prices.

In addition to these challenges, there are unanswered questions about Petra Nova's performance during its first three years of operation — it was shut down for an average of 99 days a year. In addition, NRG produced roughly two-thirds less oil than projected using the CO2 captured at Petra Nova.

NRG had said repeatedly that the Petra Nova project would boost oil production at its West Ranch oil field to roughly 15,000 barrels

NRG had said repeatedly that the Petra Nova project would boost oil production at its West Ranch oil field to roughly 15,000 barrels per day (b/d) from less than 1,000 b/d before the EOR activities. Instead, production at the field for the first three years averaged a little under 4,000 b/d.

per day (b/d) from less than 1,000 b/d before the EOR activities. Instead, production at the field for the first three years averaged a little under 4,000 b/d. Glenrock's optimistic estimates, which see production at the Big Muddy Field climbing to almost 11,000 b/d from less than 400 b/d in 2019, could well turn out to be similarly overstated, significantly undercutting the project's economic calculus.

The demise of Petra Nova should raise red flags over Glenrock's proposal for two reasons. First, there is no guarantee that

future oil prices will be high enough for Glenrock to make a profit, even with federal tax credit subsidies. Second, there is no certainty that the EOR activities touted by Glenrock will boost production as much as the company claims.

Beyond this, there are deeper questions about the viability of the EOR market in general, particularly given the late July bankruptcy filing of Denbury Resources, one of the nation's largest EOR-focused oil producers. In a buoyant investor presentation in the spring, Denbury said it was following a sustainable CO2 EOR business model that was "highly economic" at \$50 a barrel oil. Clearly, with oil prices averaging around \$38/b this year, that model no longer makes sense.

Given the spectacular rise in fracked oil production over the past 10 years, it is highly questionable whether EOR can ever really compete except around the margins. It is worth noting that total U.S. oil production in 2019 averaged more than 12 million b/d, while EOR production only accounted for about 300,000 b/d.

The economic viability of Glenrock's proposal is highly uncertain, and could leave investors, and potentially even Wyoming ratepayers, on the hook for millions of dollars in project-related expenses. It should be firmly rejected.

Dennis Wamsted & David Schlissel

Dennis Wamsted is an energy analyst at the Institute for Energy Economics and Financial Analysis (IEEFA), a global think tank whose mission is a transition to a greener future.

David Schlissel is IEEFA's director of resource planning analysis.

Editor's Note: Reprinted from the August 23, 2020 issue of the Casper Star-Tribune.

Powder River Solar Energy Production

Energy Produced: 499.02 kWh
Carbon Offset: 761 lbs

We have offset the equivalent of 9 trees in August and September 2020!



Did you know that Powder River has a YouTube Channel?

You can find us by going to YouTube.com and searching PowderRiverBasinRC. All of our solar stories and our oil & gas impact videos are available to watch.

The Sheridan Food Forest ... A Healing Story for Troubled Times



The Food Forest's Bee House.

While the Harvest Celebration and local foods support are well known Powder River projects, this is a tribute to another project we've supported since its inception, the Sheridan Food Forest. This story of selflessness is offered as much-needed respite in a time of great turmoil.

In 2016, long-time Powder River member and visionary, Carol LeResche, decided that mounds of hard packed, sterile dirt on an abandoned BMX track could be transformed (without chemicals or a landscape service) into what she called a food forest. Carol explained that the ground was so dense even weeds couldn't penetrate the surface, and it took a backhoe to break up the soil. Giant field radishes were

planted to break down the hardened dirt so water could seep in, and 12 tons of compost were spread over the surface. Over these five years, groups of Sheridan area volunteers have worked summer after summer under Carol's guidance to turn the vision into reality.

Anyone who remembered those barren mounds and then revisited the forest this summer might have felt that they were seeing something akin to straw that had been turned into gold. Hardened dirt has been transformed into a lush community food forest where the gates are always open to everyone. Carol reported that this year visitors harvested fruit from the apple and pear orchard, the strawberry pyramid, herb patches and many elderberry, raspberry, gooseberry, and currant bushes. Potato plants yielded bucket loads, and asparagus sprouted for weeks. Annual flowers grew and a "Wyoming Thicket" of native chokecherry, service berry, and plum bushes was established.

Visitors who wandered in during October might have anticipated a blaze of autumn colors. What they likely wouldn't have anticipated was the glorious masses of towering goldenrod, asters and other spectacular flowers in bright orange, deep maroon, mustard yellow, and brilliant shades of purple that blanket the Molly Clark Perennial Flower Garden. The only thing the visitor would miss seeing as winter closes in would be the prolific populations of pollinators that the garden attracts in summer. Volunteers participate in a bee census several times each season.



The Food Forest's butterfly chair invites you to sit a spell.

If you were to sit quietly on the forest's butterfly chair, you might become so mesmerized by the fall magic that the urban sound of cars rumbling by and walkers chattering on the foot path would seem to vanish, and you might wonder how this lovely forest came to be. The simple, heart-warming answer is that a visionary inspired other people to volunteer chunks of their lives just to create an oasis for their entire community. Others have also generously donated funds to purchase plants or

"adopted" a section to maintain. Powder River helped secure and manage a grant. In a world that is hurting from unprecedented divisiveness and threats to our health, spaces like the Food Forest are a welcome balm. Powder River salutes Carol and the amazing volunteers and donors who have helped make the Food Forest possible.

Pennie Vance
Powder River Staff

Get Involved with SARC!

The Sheridan Area Resource Council (SARC) is re-organizing as an active affiliate of Powder River. Existing SARC members have already been active working toward a community solar facility for the Sheridan area. Realizing that this important work will be ongoing, as well as recognizing other organizing opportunities in the Sheridan area, it's time to get busy.

SARC had a conversation with MDU about community solar efforts on Oct. 15. Prior to the discussion, SARC provided all petition signatures and letters collected in support of a community solar facility. During that conversation, MDU let us know they will be adding a utility-scale solar build to the Sheridan area grid, with groundbreaking to take place in 2023. They also pledged to run numbers for the cost of community solar installations between one-half and two megawatts in size. These numbers will be ready in January, and SARC and MDU will look at them together to determine whether a facility would come in at a price point that would be affordable to subscribers.

In addition to our community solar work, we have been discussing possible work on energy and food systems efficiency and growing Sheridan's local food economy. There are also several other issues that have come up while talking with SARC members. None of this is set in stone, but there is a lot of work we could take on together. We have all the building blocks of a vibrant local economy, but we need to put them together. An active affiliate focused on Sheridan County could really speed our progress.

If homegrown renewable energy, local food and a vibrant local economy sound exciting, or if you have ideas to make our community stronger and more resilient, we want to hear from you. We are looking forward to learning about your vision and working together to realize the great potential that exists in our county. Let's connect some dots and make Sheridan County shine!

Connect with us at info@powderriverbasin.org, or by calling 307-672-5809.

Hesid Brandow
Powder River Staff

The 15th Annual Harvest Celebration: 2020 Version

Due to Covid-19, Powder River cancelled the in-person Harvest Celebration this year. We decided to make some accommodations so that we could still hold the popular Pies by Guys Auction and the raffle.

Because the “pitches” by the pie bakers are the highlight of the Harvest Celebration, we decided to produce videos from the bakers. We then shared these on YouTube, our website, and social media. The bakers all agreed to appear on camera, and being such good sports, hilarity ensued. Singing, swords, rolling pins, horseback riding, baby dolls, swimming, masks, cute animal tricks, and science were all referenced in the videos. You can still find these videos on our YouTube channel as well as by scrolling through the videos on our Facebook page. We sincerely appreciate the pie bakers’ efforts to help pull off this unusual auction this year. Also, we want to thank all the bidders who took the time to email or mail in their bids. Amazingly, funds raised from this year’s pie auction ranked in the top four that we have done throughout the years.

As in all years, we mailed out raffle tickets, but of course, without the event, most folks had to mail their tickets back to the office. Powder River members answered the call, and we had a very successful raffle even without the in-person event. Peg Cullen won the Ellen Dudley painting; Judy Leggett won the local foods basket, and Casey Quinn won the bison meat package.

Once again, support from local food producers for the raffle basket was outstanding. We are grateful and humbled by those generous offerings from our area farmers’ market vendors. Support your local farmers and ranchers and food producers, either at the farmers’ market or direct off the farm. *See the sidebar for a list of local producers.*

We look forward to being able to gather for next year’s celebration on Aug. 28, 2021 at Kearney Hall—mark your calendars.

Robin EH. Bagley
Powder River Staff

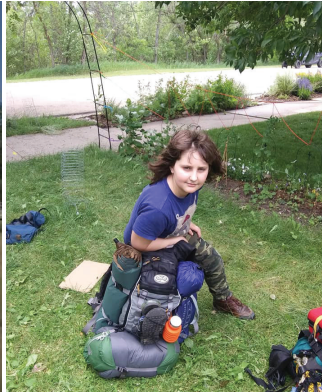
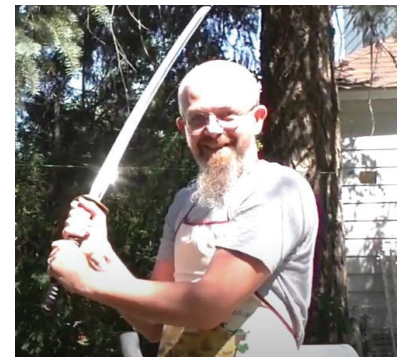
Local Foods Basket Contributors

Thank you to these local producers & businesses for contributing to the local foods basket for the Harvest Celebration Raffle! You can find many of these producers at the Saturday morning Farmers’ Market at Landon’s Greenhouse.

Zorumske Creations
Wild Hollow Artisan Bakery
Sunflower Bakery
Rocking Chair Farms
Lower Piney Heirloom Vegetables
Grass King Cattle Company
Cross E Dairy
Cloud Peak Cultures
Adams Fresh Produce
Landon’s Greenhouse & Nursery
Murphy Gulch Ranch
Box Cross Farms
Annie’s Farm
Jamie’s Cheese
Brooke Holstedt
Jenny Family Honey
Lupine Lane Food
Papa Joe’s Produce
Manchester Street Coffee
The Pepper King



Thank you to our Powder River "Pies by Guys" Pie Bakers!



48th Annual Meeting to be Held Online

In order to protect members' health and safety during the Covid-19 pandemic, Powder River's Board of Directors decided that the 48th Annual Meeting would be held online this year. Please join us via Zoom on Saturday, Nov. 7 at 3 pm. The business meeting is open to members only, and advance registration is required. Registration is quick and simple; you can find information on how to register at www.powderriverbasin.org/events.

The business meeting will cover the organization's 2020 accomplishments, board nominations, as well as a discussion and vote on proposed resolutions that will guide Powder River's work on specific issues. The meeting will be held using Zoom, video software that is easy to use and allows everyone to participate in the meeting. If you do not have the ability to use video software, there is a call-in option which will be provided once you have registered. After the meeting, members are invited to remain on the video call for a virtual happy hour. This will give members the opportunity to see each other and reconnect.

The Silent Auction also will be held online this year, and will open for bidding on Oct. 28 at noon, and close at noon on Nov. 7. The link for the auction is: www.32auctions.com/prb2020, and bidders will need to register on the site. Once registered, you can bid and will be notified immediately if outbid. At the end of the auction, you will be notified if you won an item(s) and if so, what your total is. The website is very user-friendly and will even take online payments. As every year, winning bidders are welcome to send Powder River a check for the amount. We will work with bidders for pick up or delivery of items and can also arrange shipping if necessary, though bidders will be responsible for paying the shipping costs.

Once again, we have some terrific items generously

donated by our supporters, including a guided fishing trip for two on the Big Horn River; a two-night stay at Gray Wolf Cabin outside Yellowstone National Park; handmade artisan jewelry and pottery; original artwork by Joel Ostlind, Ellen Dudley and Marge West, all Wyoming artists, and more! While scaled-back from our usual number of auction items, we have an outstanding selection again this year.

Please contact the office at info@powderriverbasin.org or 307-672-5809 if you have any questions on the annual meeting or the silent auction. We look forward to seeing you on Nov. 7.

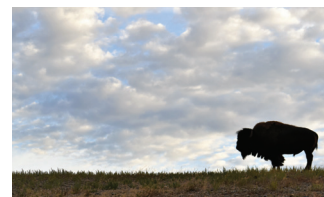
Robin E.H. Bagley
Powder River Staff

Powder River Welcomes New Southwest WY Organizer



In August of 2019, Michele Irwin joined Powder River as a contract organizer to address coal transition in Kemmerer and Rock Springs, and she joined the staff full-time this September. Michele grew up on a small farm in Southeast Idaho, and earned a B.S. in Political Science from Idaho State University. She moved to Wyoming in 1989, and later earned a master's in Public Administration from the University of Wyoming. She worked two decades in the extraction industries of Southwest Wyoming. She and her husband, Rob, raise Airedales and a small herd of bison along the Green River. She also teaches American and Wyoming Government for Western Wyoming Community College, and serves on the Wyoming Outdoor Council's board of directors.

Michele is an outdoors woman who loves to hunt, hike, photograph, and garden. She is especially passionate about Wyoming's wildlife, and was an early advocate for responsible siting of industrial



solar projects in Wyoming. Michele's parents were both ecologists as well as modern day homesteaders. She is especially excited about how a transition to clean energy can be a cornerstone for a diversified economy and sustainable communities. She sees value-added agriculture and diversification through "homegrown entrepreneurship" (especially promoting locally sourced foods), as an essential ingredient for a successful economic transition.

"I enjoyed teaming up with the staff to put on Powder River's first webinar series, "Reclaiming & Growing Wyoming's Future," as part of my work on energy transition in Southwest Wyoming. I'm looking forward to becoming more integrated with the larger work of the organization. Responsible energy and sustainable agriculture are great things to focus on as we work together to lead Wyoming forward."

Michele Irwin
Powder River Staff

Questions Linger After a Year of New Coal Mine Operators

This month marks the one-year milestone for new Powder River Basin coal mine operators Navajo Transitional Energy Company (NTEC) and Eagle Specialty Materials (ESM). The companies took over mines from bankrupt Cloud Peak Energy and Blackjewel in October 2019, and now they represent the third and fourth largest coal operators in the nation.

But after a year of operating there are still major questions lingering about the long-term financial viability of the mines and key operational and permitting issues. For

instance, neither of the new operators has obtained the federal coal leases for the mines. The reason is that there are unpaid royalties left from their predecessors, and the leases can't be transferred without paying off that debt. This means that the Department of Interior has essentially given the companies a free pass in developing federal coal resources without the legal rights and access to do so.

On the financial side, Covid-19 hit the companies particularly hard and made what was an already significant decline in coal production much worse. NTEC laid off 145 employees at the Antelope Mine this spring and summer, about 20% of its workforce. Both companies got Paycheck Protection Program loans of over \$5 million, but details are



The Antelope Coal Mine

scarce on how the money was used and how it helped to keep workers employed. Both companies are privately held and unlike a publicly traded company that must disclose certain information to the SEC, there is limited public information available about the financial status of these new companies.

Outside the Powder River Basin, ESM also took on dozens of permits in Appalachia as part of a bonding deal for the Eagle Butte and Belle Ayr Mines. In doing so, ESM acquired significant environmental cleanup liability and reclamation costs associated with mines with ongoing clean water and other permit

violations. Those mines are not producing coal and are purely a revenue drain, putting further strain on the overall financial viability of the company.

It is no secret that the long-term outlook for coal is bleak, with an ever-growing list of coal plant retirement announcements. For these reasons, Powder River continues to focus our work on ensuring that companies are taking the long-term closure and reclamation issues of the mines seriously now, when there is still the cash on hand to deal with these problems. We will continue to monitor the status of ESM's and NTEC's mines, and will intervene before our state and federal regulators as needed to protect the public interest going forward.

Shannon Anderson
Powder River Staff

Wyoming Featured in National Solar Tour

This year, Wyoming was well-represented in the National Solar Tour put on by Solar United Neighbors and the American Solar Energy Association. Due to Covid-19, this year's event was completely virtual, which actually played in Wyoming's favor. Since Powder River has a wealth of video testimonials featuring Wyoming solar owners, we were among the best represented states in the nation this year.

In past years when Wyomingites participated in the tour, we only had a few homes to showcase, and attendance was often low due to the remoteness of many solar homes. This year, our tours were as accessible as those in any other state.

According to an event follow-up from Solar United Neighbors, "over the past week, 1,800+ people logged on to view 461 open houses and electric vehicle ride-alongs. Organizers across the country brought together solar homeowners as a part of 44 local tours. Almost 900 of you registered to attend coffee chats, happy hours, and webinars."

Out of the 44 local tours mentioned, four of those were from Wyoming. Powder River posted three solar tours covering 23 unique solar homes and businesses. Creative Energies posted the fourth



Tom Varcalli standing by his solar panels.

Wyoming tour, featuring four solar sites in Lander. The virtual format allowed for equal participation at remote sites as well as at locations in towns. However, the benefits of the virtual format for participating Wyoming solar owners did not end there. Though the tour officially ran from Sept. 28 - Oct. 4, the tours will still be available to view for several more months.

Watching solar tours is an excellent way to look into solar ownership for those who are currently considering an installation or to learn more for those just curious about solar energy. Many of the tours provide information from solar owners about their energy use, savings, and other logistical information about their solar experiences. Since the tours are not sales-oriented, they provide a chance to get unbiased information about what it's like to go solar.

If you are thinking about going solar, or if you just enjoy watching people share their beautiful homes and solar businesses, take a little time to explore some of the solar tours. You can find the website by searching for "National Solar Tour" and clicking on the first result or by going to www.nationalsolartour.org/local-tours/. Happy Browsing!

Hesid Brandow
Powder River Staff

New Bill Tackles Unemployment & Abandoned Wells

These days, skilled workers sit unemployed, while thousands of leaking orphaned oil and gas wells litter the landscape of the West. An orphaned well is an unreclaimed well for which no owner or operator can be found, or where an owner or operator is unable to plug and reclaim a well. Orphaned oil and gas wells have been an issue for decades, in large part due to insufficient federal bonding requirements that have not been updated since the 1950s and 1960s. Colorado Senator Bennet's new legislation, *The Oil and Gas Bonding Reform and Orphaned Well Remediation Act*, will put thousands back to work while enacting measures to protect vital groundwater and agricultural land from continued damage. The legislation will establish an official orphaned well clean-up fund and strengthen federal oil and gas bonding requirements, creating a direct solution to the orphan well reclamation crisis that has been exacerbated by the Covid-19 pandemic.

With oil and gas demand falling dramatically during the pandemic, already over-leveraged companies are going bankrupt and leaving behind unplugged and unreclaimed wells for states and taxpayers to clean up. Thousands more oil and gas wells are being idled and are at high risk of becoming orphaned, and insufficient bond amounts make reclamation of these wells uncertain. These wells sit unplugged, emitting climate-wrecking methane and potentially contaminating groundwater until states and taxpayers are able to fund their reclamation. This legislation will ensure that the government can

"It provides funds to plug and clean up the thousands of wells left behind by failed and bankrupt drillers. Most importantly, it requires that future drillers provide stronger financial assurances up front, so unfunded orphan wells don't recur in the future."
- Bob LeResche

begin to plug and reclaim orphan wells without using taxpayer money by eliminating nationwide blanket bonds, increasing statewide bonds and adjusting for inflation, and improving data collection to identify and catalog orphaned wells on federal, state, and tribal lands.

"For decades, unplugged wells have been allowed to pollute the land, water, and air of thousands of Westerners who live near federally managed oil and gas deposits. These same communities, who had little

input in development decisions, today face widespread unemployment. Senator Bennet's legislation will not only put these communities back to work plugging wells abandoned by industry, protect groundwater, reduce methane pollution, address the growing crisis of orphaned wells and ensure broader public participation in future development, it also prioritizes urgently needed bonding reform," said Barbara Vasquez, Chair of the Oil and Gas Team for the Western Organization of Resources Councils.

"The legislation deals with both ends of the huge and burgeoning public liabilities left by the collapsing financial bubble in America's oil industry. It provides funds to plug and clean up the thousands of wells left behind by failed and bankrupt drillers. Most importantly, it requires that future drillers provide stronger financial assurances up front, so unfunded orphan wells don't recur in the future," said Bob LeResche, Board Member, Powder River Basin Resource Council.

**Western Organization of Resource Councils
Powder River Staff**

Federal Powder River Basin Coal Plan Violates Court Order

In August, conservation groups sued the Bureau of Land Management (the bureau) to challenge a massive Powder River Basin coal mining plan that the groups say ignores alternatives to coal, oil and gas leasing, and fails to publicly acknowledge the harms from coal combustion, violating federal law and a 2018 court order, and forcing the coalition of conservation groups back into the courtroom.

The lawsuit says the bureau's final resource management plans, covering 3.5 million acres of surface land and 15.4 million acres of federal minerals in Montana and Wyoming, violate the National Environmental Policy Act by failing to adequately consider the public health danger from air pollution emitted by large-scale fossil fuel extraction and combustion.

A federal judge rejected the agency's previous plan because it failed to consider alternative levels of coal, oil, and gas leasing that would reduce harm to air, land, water, wildlife, and the global climate. That problem persists in the agency's revised plan, the groups say. Further, the bureau again failed to tell the public the true extent of the harm caused by coal combustion, in particular the deadly impacts of particulate matter and toxic pollution emitted from burning coal according to the complaint.

"The Bureau of Land Management's actions here are both

telling and troubling," said Shiloh Hernandez, attorney at the Western Environmental Law Center. "The bureau is unwilling to reexamine its reckless commitment to large scale fossil fuel development in the Powder River Basin, yet it is also unwilling to tell the public the full truth about the extent of premature death and disease caused by this development. The fact is, air pollution from coal causes thousands of premature deaths in the U.S. every year and sickens many more. The law requires the bureau to disclose this information prior to allowing extraction of billions of tons of coal and huge volumes of oil and gas."

The bureau's revised final resource management plans (RMPs) for the Buffalo, Wyoming and Miles City, Montana field offices call for keeping open nearly 50,000 acres of land in the Powder River Basin for federal coal mining (and more for oil and gas drilling, which is not at issue in this legal action). Despite declining demand for coal nationwide, the RMPs anticipate six billion tons of coal to be mined over 20 years.

The RMPs come at a time when the coal market is in perhaps the most financially dire condition in history. Years of declining production and bankruptcies have led industry majors to shed giant strip mines and billions of dollars in mine cleanup liabilities to newcomers to the Powder River Basin with unknown financial ability to fully reclaim the land.

Leaving Powder River

Dear Powder River Members,

As fall sets in, I am preparing to depart my position as organizer and step-up my position as active Powder River member. My last day as your organizer will be October 31.

This time of year is always a reflective time for me. Right now, I am thinking about the four years since I first stepped foot into Powder River's office and all of the experiences I have had while working here.

In my time at Powder River, I am proud to have helped spearhead the RENEWyoming campaign. Having the chance to learn about Wyoming's solar energy activity and meet solar owners, installers, and local government officials across the state has been extremely informative. I have learned a lot while making a myriad of connections to the people moving solar forward in our state through events and outreach. Forging those relationships, helping these people to stay informed, and guiding them in using their collective power to advocate for solar energy was nothing short of eye-opening.

The opportunity to work and connect with so many people in Wyoming's solar community is something that will live with me. I will remember these times fondly, and I will carry many friendships formed while working here forward as I move on.

While my solar work was by far the most exciting organizing work I have done, my work on *ad valorem* taxes may be my proudest work at Powder River. It was downright enjoyable helping the Wyoming public understand how an obscure tax tied into their everyday life. As the public began to understand the structure of *ad valorem* mineral production tax collection and its impact on education and other sectors of Wyoming's economy, it became clear that something had to change.

Thank you all for working with me to help push things in the right direction and get that change enacted.

So, what's next for me? I am looking at a variety of fully-remote jobs that will provide me a large amount of flexibility in work time and structure. For my family, during these strange times, there is an

advantage if I can work a little less and spend more time with the children and engage in community service opportunities locally. As we move toward the legislative season and the workload that it entails, this becomes increasingly true.

I have begun working with a group of Sheridan Area Powder River members to reorganize the Sheridan Area Resource Council (SARC) as an active affiliate. We have decided to reorganize SARC to continue the work on community solar that existing members are already doing, and we are discussing other work that they may take on. Among other pursuits, I will continue to plug in with SARC as a volunteer once I am no longer staff.

Powder River has helped to make me into a more informed and proactive citizen, and for that I am truly grateful. My experiences with *ad valorem* and net metering will stay with me, as will my greater understanding of the legislative process and the important impact that citizen voices can make. I have also learned many organizing tools that I will continue to employ to benefit the state of Wyoming. Like many staff who have come before me, I leave Powder River as a more engaged and effective citizen.

It seems somehow appropriate that I depart my position now, as another election looms in our collective future. Again, we stand at the nexus of a decision that will take our country in new directions, and again we hold our collective breath.

Regardless of how the coming election goes, the next four years are unlikely to be boring and are certain to bring major changes. In a rocky and ever-changing sea, it gives me confidence knowing that Powder River will be here watching, weighing-in, and helping to steer our boat safely through the storm.

If you have appreciated my work, please donate to Powder River to ensure that our good work can continue and send me off in style.

Thank you, Powder River Members!

Hesid Brandow
Powder River Staff

Powder River Is Hiring

Powder River Basin Resource Council, a progressive nonprofit conservation organization based in Sheridan, Wyoming, seeks an Executive Director, preferably with grassroots organizing experience, excellent communication and financial management skills, and the ability to problem-solve complex, environmental and socio-political issues. The applicant we hire will be a leader and a team player who embraces the vision and goals of this 47-year-old organization, welcomes working with a highly functioning staff and a hands-on Board of Directors and engaging with community members, policy makers and state and local officials to create positive change in Wyoming.

Responsibilities include: working closely with Powder River's Board Chair and keeping board members informed on ongoing issues and campaigns; preparing grant proposals and reports in a timely manner and organizing internal fundraising campaigns; overseeing the membership recruitment and renewal process; maintaining the

organization's 501(c)(3) status; preparing the annual budget in coordination with Powder River's Finance Committee; supervising staff in Sheridan and remote satellite offices and delegating tasks as appropriate; coordinating with affiliates and coalitions on issues and campaigns and representing Powder River in the public sphere, including with members and community leaders, government agencies, elected officials and industry.

Salary is dependent on experience. We provide a generous benefits package, including health, vision, dental insurance, paid vacation and parental leave, paid long-term sabbatical leave, and a retirement bonus plan for long-term employees.

Send cover letter, resume, and three writing samples to careers@powderriverbasin.org or Search Committee at Powder River Basin Resource Council, 934 North Main St., Sheridan, WY 82801. We will begin reviewing applications Dec. 1, 2020 and hope to hire our new director by March 1, 2021.

Powder River is an Equal Opportunity Employer.

Aethon...Continued from page 1

The EPA informed the WOGCC that they would need additional information and analysis from Encana as well as a formal submission from the commission requesting the exemption. The federal agency also told the WOGCC that a public hearing must be held before they could make a determination on the Madison Aquifer exemption proposal. The information EPA requested included: 1) a better model to demonstrate the pathways and extent of brine migration; 2) evaluation of freshwater recharge to the aquifer from the south; 3) an analysis of the total area of the aquifer that would be impacted and the rationale used to determine the area exempted; 4) a detailed plan of how the planned expansion of oil and gas drilling in the Moneta Divide area would impact the aquifer in the vicinity of the proposed exemption, and 5) an analysis of other regional beneficial uses for the high quality Madison Aquifer water and further demonstration that this water would not be needed in the future.

Encana began those studies, and then in 2015 sold all their holdings in the Moneta Divide field to a Dallas-based investment firm, Aethon Energy, LLC and their partner RedBird Capital, LLC. The studies Encana had initiated were turned over to Aethon, who then petitioned the WOGCC to allow them to present the additional data supporting the Madison Aquifer exemption.

The hearing was held on Nov. 10, 2015, and serious concerns were raised by the three geologists on the WOGCC about the inadequacy of Aethon's model to ensure the large volumes of contaminated water injected into the aquifer would stay within the small area Aethon claimed would be affected. The state geologist at the time, Tom Drean, said, "I don't believe personally that the technical questions that were out there before this commission and the concerns that were out there before have been adequately addressed. It didn't

violate the data, but it was a simplistic look at the data, and that has a huge impact for me." The other two geologists on the commission agreed. The vote was delayed until February of 2016, and all five commissioners (Governor Mead, Bridget Hill, Tom Drean, Mark Doelger, and Tom Fitzsimmons) all voted against exempting the Madison Aquifer for Aethon's disposal well.

Five years later, and with five new members sitting on the WOGCC, Aethon is back with essentially the same proposal. WOGCC had the aquifer injection hearing scheduled for Oct. 13, but Powder River filed concerns with WOGCC and EPA concerning the lack of public notice and inadequate time to review the application and provide comments. WOGCC rescheduled the hearing until Nov. 10.

The facts remain that both the Wyoming Water Development Commission, the DEQ, and the Wyoming Geological Survey previously noted that the Madison Aquifer has the best potential for developing high-yield wells in the future and is critically important for citizens in the Wind River and Bighorn Basins. Aethon's request to exempt the Madison Aquifer and use it to dispose of millions of barrels of contaminated oil and gas wastewater still fails to meet the regulatory or legal criteria for an aquifer exemption. Please help us continue our critical work to protect Wyoming's freshwater resources and send your comments on this proposal to: tom.kropatsch@wyo.gov or by mail to Tom Kropatsch, Deputy Supervisor; WOGCC; P.O. Box 2640; Casper, WY 82602. In your letter, please reference: Docket # 1711-2020 or Aethon Madison Aquifer Exemption Request for Marlin 29-21 Injection Well.

Jill Morrison
Powder River Staff

PSC...Continued from page 1

elected officials in Southwest Wyoming where the Naughton and Jim Bridger power plants are located. The Coalition of Local Governments argued that the IRP should have considered the socio-economic impacts of retiring coal plants, including lost revenue and jobs. To this the PSC determined that it did not have the authority to consider socio-economic impacts now, but the agency decided to convene a stakeholder forum to determine if new rules are needed.

Overall, the decision is disappointing and signals a shift away from the traditional least-cost, least-risk planning done by utilities in

Wyoming. Listening to parties like Glenrock Energy, who wants carbon from the Dave Johnston power plant to bring its oilfields into production, the PSC made it clear that Wyoming's policy goals of carbon capture will need to be front and center in the next IRP.

In spite of the decision – or perhaps because of it – Powder River will continue to work hard to represent ratepayers and our members who depend on low cost power for their homes and businesses, and we will continue to oppose government efforts to prolong the use of uneconomic coal plants.

Shannon Anderson
Powder River Staff

Federal...Continued from page 9

The Western Environmental Law Center filed the challenge in U.S. District Court in Great Falls, Montana, on behalf of the Western Organization of Resource Councils, Montana Environmental Information Center, Powder River Basin Resource Council, Northern Plains Resource Council, the Sierra Club, the Center for Biological Diversity, and WildEarth Guardians.

"The court ordered the bureau to align federal coal management with the reality of climate change and shrinking coal markets," said Bob

LeResche, a board member of both Powder River Basin Resource Council and WORC and a Powder River Basin landowner. "BLM has ignored that order. They must modify their coal management plan to operate in the broad public interest and reduce impacts to coal communities. Federal coal leasing needs to match real market demand, and minimize impacts to our air, land, water, and agriculture and other economic activity in our states."

Western Organization of Resource Councils
Powder River Staff



**NONPROFIT ORG.
U.S. POSTAGE PAID
SHERIDAN WY
PERMIT NO. 38**

Address Service Requested

**934 North Main
Sheridan, Wyoming 82801**

Encouraging Responsible Development Today... _____ For Tomorrow...

In this Issue

Save the Date

2020

29 October	Healthy Soils Webinar
7 November	Annual Meeting Online
13 November	Board Meeting, Online

Aethon Proposed to Dump Polluted Waste into Madison Aquifer.....	Pg 1
Public Service Commissioners Question Rocky Mountain Power Energy Plan.....	Pg 1
Message from the Chair.....	Pg 2
Lander Climate Action Network Heads to City Council.....	Pg 3
CALC's Panel Shines Light on Oil & Gas Air Pollution Research.....	Pg 3
Wamsted, Schlissel: Glenrock's CO2 Capture Facility Hopes Are Based on Wishful Thinking	Pg 4
The Sheridan Food Forest... A Healing Story for Troubled Times.....	Pg 5
Get Involved with SARC!.....	Pg 5
The 15th Annual Harvest Celebration: 2020 Version.....	Pg 6
48th Annual Meeting to be Held Online.....	Pg 7
Powder River Welcomes New Southwest WY Organizer.....	Pg 7
Questions Linger After a Year of New Coal Mine Operators.....	Pg 8
Wyoming Featured in National Solar Tour.....	Pg 8
New Bill Tackles Unemployment & Abandoned Wells.....	Pg 9
Federal Powder River Basin Coal Plan Violates Court Order.....	Pg 9
Leaving Powder River.....	Pg 10
Powder River is Hiring.....	Pg 10

Planned Giving and Estate Planning Gifts

The Powder River "family" has been thinking a lot about the future lately, because, as the saying goes, "We aren't getting any younger." We want to make sure this organization remains viable for future generations in the same way it serves today's members. So we're inviting you, our extended family of members and donors, to consider including Powder River in your estate plans.

Your gift would create a living legacy allowing Powder River to continue our work far into the future and helping ensure Wyoming remains the place we know and love for our kids and grandkids.

As one long time Powder River member, Digger Moravek stated, "I want to raise Hell long after I'm gone." You too can do this through a bequest to Powder River.

The two easiest ways to include Powder River in your estate planning take little time (and no legal assistance).

- **THROUGH YOUR RETIREMENT ACCOUNT** (Your IRA, Roth-IRA, SEP-IRA, 401(k), or other such account): Name *Powder River Basin Resource Council* as a Primary beneficiary for a percentage. One percent, 10%, 25% or whatever you wish. You can do this through the account custodian, or often even on the custodian's website in a few minutes (Powder River's Tax ID is 74-2183158).

- **THROUGH YOUR LIFE INSURANCE POLICY:** - Name *Powder River Basin Resource Council* as a primary beneficiary of any percentage of your life insurance policy. You can do this through your insurance agent or the insurance company, or often even on your insurance company's website in only a few minutes (Powder River's Tax ID is 74-2183158).

If you are preparing a formal will or living trust document, you can include Powder River Basin Resource Council as a primary beneficiary of a specific dollar amount or percentage of your estate. If you already have such an instrument, you can have it revised to include Powder River. This is probably best done through your attorney.

Finally, there are several more complex tax-advantaged ways to contribute to Powder River's future and receive continuing income and tax advantages during your lifetime. These include "charitable remainder trusts" and sale of appreciated and depreciated securities. Please consult your legal and financial advisors about how you can use such tools to support Wyoming's most effective grassroots member organization, and how you might benefit.

If you have any questions, please give Powder River a call at 307-672-5809

Thank you!

Wyoming Delegation Contact Information

Barrasso, John (R)
307 Dirksen Senate Office Building
Washington, DC 20510
Website: barrasso.senate.gov
Phone: (202) 224-6441
Fax: (202) 224-1724

Enzi, Mike (R)
379A Senate Russell Office Building
Washington, DC 20510
Website: enzi.senate.gov
Phone: (202) 224-3424
Fax: (202) 228-0359

Cheney, Liz (R)
416 Cannon House Office Building
Washington, DC 20515
Website: cheney.house.gov/
Phone: (202) 225-2311
Fax: (202) 225-3057