

RHYOLITE RIDGE NEWSLETTER

MAY 2023

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PRESIDENT'S MESSAGE

Dear Readers,

I'd like to thank all of you who attended our recent community meeting in Fish Lake Valley, I and our team remain grateful for all your support. And as I reinforced during the meeting – we will always keep the community informed of our ongoing progress and remain committed to working with you to ensure that the Rhyolite Ridge Project can be a benefit for all.

The NEPA process continues to progress steadily and our expectation remains that it will conclude with the issuance of a Record of Decision in the first quarter next year which is the final major permit necessary for construction.

We were pleased to host a grand opening of the Tiehm's Buckwheat Conservation Center – a dedicated facility for conducting research and conservation of the Nevada plant, on May 3rd. This has been the culmination of many years of work from our environmental team and is an example of our commitment to ensuring that both the Rhyolite Ridge Project and Tiehm's buckwheat can co-exist.

And earlier this month we were proud to announce a partnership with Reno-based Dragonfly Energy, which will result in Nevada-sourced lithium being used for Nevada manufactured batteries. As Governor Lombardo said: "This agreement between Dragonfly Energy and Ioneer, and hopefully more like it in the future, are vital to our economy as we work to develop this new industry, secure Nevada's energy independence and close the lithium loop."

Over the summer, Ioneer will be participating in several community events and celebrations, and we look forward to hosting another community meeting in Fish Lake Valley tentatively in early September - we hope that you can join us. I intend to spend much of the summer in Nevada and look forward to seeing as many of you as possible.



Above: Florencia answers questions from attendees at the Tiahm's Buckwheat Conservation Center opening event.

Tiahm's Buckwheat Conservation Center Opens

On May 3, Ioneer held an opening event for its Tiahm's Buckwheat Conservation Center, a greenhouse dedicated solely to research and conservation of the native Nevada plant.

During the event, Ioneer CEO, Bernard Rowe, and the company's full-time botanist, Florencia Peredo Ovalle, shared information about our ongoing research efforts and showed how we are successfully growing new Tiahm's buckwheat plants from seed collected from the known populations.

Rowe commented: "We remain committed to the protection and conservation of Tiahm's buckwheat and have incorporated numerous measures into our current and future plans to ensure this occurs. In addition to amending our Mine Plan of



Tiahm's buckwheat growing in the dedicated greenhouse in Nevada.

Operations to avoid all Tiahm's buckwheat populations, we're pleased to commemorate the opening of the Tiahm's Buckwheat Conservation Center. Through these efforts, coupled with the existing scientific understanding of the plant, Ioneer remains highly confident that Tiahm's buckwheat and our Rhyolite Ridge Lithium-Boron Project — a critical asset to ensure a sustainable planet for all species — will successfully coexist."

In December the US Fish and Wildlife Service finalized the listing of Tiahm's buckwheat as an endangered species under the Endangered Species Act and designated critical habitat, a decision that aligned with our expectations. Prior to Tiahm's buckwheat's formal federal protection, Ioneer contributed more than \$1.5 million to ensure the plant's long-term growth and success, and we have budgeted an additional \$1 million annually to protect the species.



Ioneer and Dragonfly Energy Partnership to Strengthen U.S. Lithium Battery and Storage Supply Chain

On May 10 Ioneer and Dragonfly Energy (Reno-based industry leader in energy storage and manufacturer of “Battle Born Batteries”) announced a commercial agreement partnership that will strengthen U.S. battery supply chains and invest in the production and manufacturing

of Nevada-sourced lithium.

The agreement builds on an effort to produce, utilize and recycle lithium, closing the lithium loop in Nevada that Gov. Joe Lombardo has prioritized for his administration, detailed in both his recent State of the State address and his Five Year Strategic Plan.

“This agreement between Dragonfly Energy and Ioneer, and hopefully more like it in the future, are vital to our economy as we work to develop this new industry, secure Nevada’s energy independence and close the lithium loop,” said Nevada Governor Lombardo. “In the future, we hope to see more Nevada companies creating innovative partnerships like this one, which will help strengthen our economy and demonstrate how Nevada is the lithium capital of North America.”

“Deploying our innovative dry powder coating cell manufacturing process is exciting. But ultimately, cell production is only made possible by access to lithium,” Dr. Denis Phares, CEO of Dragonfly Energy, said. “This agreement gives us the opportunity to bring our entire manufacturing process not only to the U.S. but to Nevada, from mining to manufacturing to recycling.”





Ioneer and Nevada Battery Coalition participated in Round Table with U.S. State Department Special Representative

On April 18 Ioneer, and other founding members of the Nevada Battery Coalition, participated in a roundtable discussion with the U.S. State Department's Special Representative Dilawar Syed focused on Nevada's burgeoning lithium battery industry.

The discussion was held at the University of Nevada, Reno, where former Nevada Governor and current University President Brian Sandoval, along with Reno

Mayor Hilary Schieve kicked off the event.

As Nevada is the only the state in the county that has the entire lithium supply chain – from exploration and mining to manufacturing through recycling, much focus has been placed on the state's growing importance to the Country's national security and international economic competitiveness.



Ioneer Welcomes Nina Astillero and Tashina Jim to the Team

We are pleased to announce that our U.S. operations team is expanding with the addition of Nina Astillero as Environmental, Social and Governance (ESG) Director and Tashina Jim as Tribal Liaison.

With over 12 years of experience in mining, building

products, and environmental and consulting fields, Astillero brings valuable expertise and insight to our ESG. Previously, Astillero has worked at Holcim (US) Inc., Freeport-McMoRan, Inc., and Bureau Veritas North America — her technical experience will be an asset as we continue development of the Rhyolite Ridge project.

Ioneer also welcomes Nevada-native Tashina Jim as Tribal Liaison. Jim will serve as the central point of contact for Ioneer on engagement with tribal nations, organizations, and enterprises in Nevada.

A member of the Walker River Paiute Tribe, Jim previously served as the environmental manager for the Tribe where she maintained important superfund environmental monitoring programs and helped the Walker River community improve environmental practices in areas such as landfill management.

Resource Update Finds 168% Increase in Estimated Lithium at Rhyolite Ridge

On April 25, Ioneer released new findings showing Rhyolite Ridge holds 168% more lithium and 18% more boron than previously reported. The site is now estimated to hold enough lithium carbonate to power upward of 50 million electric vehicles (EVs) with further expansion potential pending additional exploration.

In the coming years, U.S. demand for lithium is expected to soar to keep pace with projected demand for EVs. The updated estimate underscores our potential in strengthening U.S. supply chains and securing a domestic and environmentally sustainable source of lithium and boron.

Once federal permitting and construction is complete, Rhyolite Ridge is expected to produce enough refined lithium materials for approximately 400,000 EVs per

year, quadrupling current U.S. lithium chemical output.

The updated report, conducted by WSP USA Inc. (formerly Golder Associates USA Inc.), now estimates Rhyolite Ridge's Mineral Resource deposit at 360.0 million tonnes.

Bernard Rowe, Ioneer Managing Director, commented: "[This] Mineral Resource Update demonstrates Ioneer's unique ability to supply secure and strategic materials for electric vehicle battery manufacturers. These new findings demonstrate how Ioneer can help the United States sustainably source lithium and boron while combating climate change. Ioneer looks forward to finalizing the remaining federal requirements and commencing our operations."

The full report is available using this link

<https://www.ioneer.com/investors/asx-and-nasdaq-announcements>.



Ioneer Explains – Water Use at Rhyolite Ridge

Water usage is always an important consideration for any major development, whether that be housing development, agriculture, recreational facilities, or mining activities, and it is imperative that water use be utilized in the most efficient and responsible way. And at Ioneer we take that responsibility seriously.

As such, we wanted to provide an overview of our water usage and our commitment to being good stewards of this resource.

How much water will the Rhyolite Ridge operation use?

In discussing Rhyolite Ridge's water usage, it's important to note that volumes will vary among its three phases: Construction, Operations, and Reclamation.

- During construction (which will occur over approximately 2 years), we will utilize about 300 gallons per minute - equal to approximately 482 acre/feet per year. This water will be used mainly for construction materials (cement for example), and for controlling dust both at the site and along the access road.
- During the Operational period (following construction), Rhyolite Ridge (which includes both mining and processing activities) will require approximately 2500 gallons per minute - equal to approximately 4,035 acre/feet per year. For comparison, one agriculture center pivot utilizes approximately 504 acre/feet per year - which in summary means that our operations will use the same amount of water as approximately 8 center pivots. And while we will be using this amount year-round, the total volume of water used over an entire year will be equivalent to existing agricultural operations that only pump water during the growing season.
- And finally, during the reclamation period, water use will be about 200 gallons per minute, which is approximately 322 acre/feet per year.

According to the Nevada Division of Water Resources, there are currently about 30,000-acre feet of water being pumped and utilized within the Fish Lake Valley Basin - the vast majority being used for crop irrigation. Accordingly, Rhyolite Ridge will utilize about 13% of the current water use in the valley - transferring the manner of use from agriculture to mining and milling.

We have agreements with active farming operators in Fish Lake Valley to transfer water rights to the Rhyolite Ridge Project once operations commence. When operations begin, that water will stop being used for agriculture.

Where will water come from?

During the construction period all required water will be obtained from de-watering wells located within the Project boundary. In order to safely retrieve the lithium-boron ore the area that the quarry will be located must be dewatered, and so these wells effectively serve two purposes.

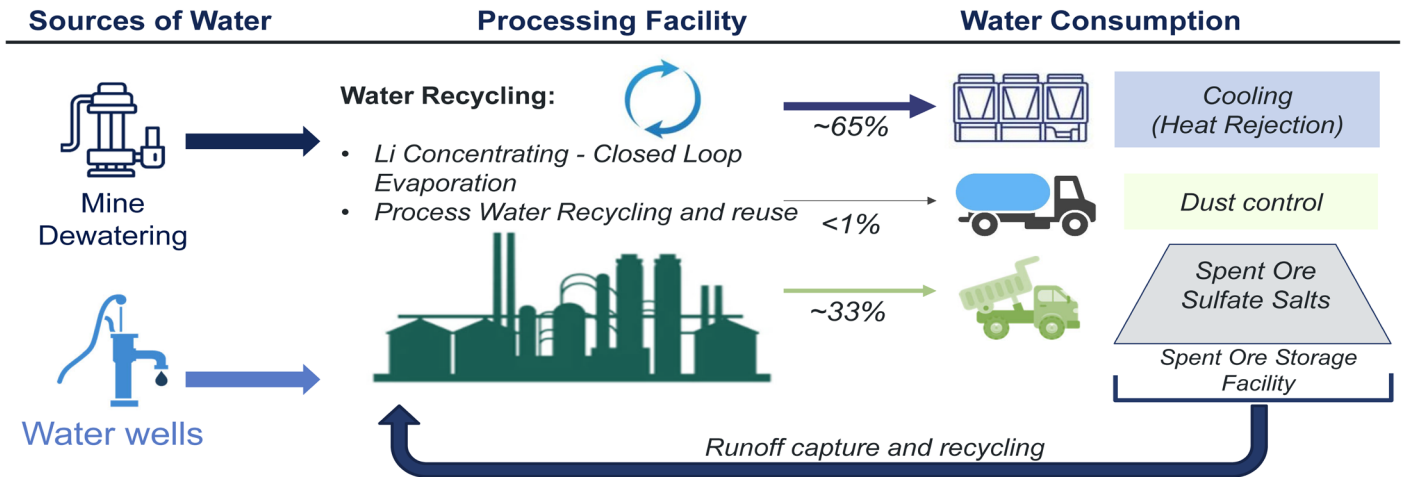
During the first 3-5 years of operations, we will source all the water required for mining and processing activities (about 4,035 acre feet per year) from both the dewatering wells mentioned earlier, along with a series of other wells that have already been put into place within the Project boundary.

Following these 3-5 initial years of operations, as the mine site wellfield productivity is unconfirmed, an additional water source outside the Project boundary may be needed. No matter where these water sources are located, our water usage will remain the same from the first day of operations to the last and will not change the overall amount of water being used in Fish Lake Valley. Accordingly, there will be no impact on surrounding groundwater levels.

Following the conclusion of operational activities, we project that there will be a use of about 200 gallons per minute in perpetuity, resulting from evaporative loss of the lake that will be present within the quarry sink when dewatering pumps are shut off. No pumping activities will be occurring during this reclamation period, and water rights will have been secured to account for this.

RHYOLITE RIDGE WATER CYCLE

Sources, Recycling and Consumptive Uses of Water at Rhyolite Ridge



How is water used at Rhyolite Ridge?

Water is used in a variety of ways for both the mining and processing operations at Rhyolite Ridge. The lithium and boron are contained within competent rock rather than within liquid, and therefore we will not be using any evaporation ponds used by lithium brine operations (e.g., Silver Peak). In fact – we project that our water use per ton of lithium produced will use only 1/30th of the water compared to brine operations.

The primary use of water is associated with our on-site sulfuric acid plant (which will provide all required power for all operations – we do not need to tie into the existing electrical grid nor do we have gas power). Water (along with catalysts) is added to elemental sulfur creating a considerable amount of steam that is both used to spin a turbine and thereby creating electricity, but also as part of our evaporation circuit that is used to refine our end products of boric acid and lithium carbonate. A significant portion of this water is contained within a closed loop evaporation system – allowing us to recycle about 1,350 gallons per minute reducing our overall water usage.

Water is ultimately consumed within 3 main areas of the operation (as depicted in the graphic above).

- Evaporative loss – the power plant mentioned earlier creates a considerable amount of heat, and we will be venting some of the hot steam to remove heat from the system (~65%)

- Dust control at site and on access roads (<math><1\%</math>)
- Water that is locked up in the chemical structure of our byproducts and present in our spent ore facility (epsom type salts for example) (~33%)

Water Saving Initiatives

We are dedicated to consistently reducing our water usage at Rhyolite Ridge and have designed our operations to do that. Below is an example of initiatives that we have implemented or are evaluating:

- Closed loop evaporation and water recovery circuit – so that we can reuse water before it is lost either through evaporation or being locked up in byproducts or in the residual ore.
- Water Recycling from the Spent Ore Storage Facility – where we will collect any water that is leftover in the ore body and reuse it within the processing facility.
- Usage of environmentally safe materials on access roads to reduce the amount of water needed for dust control on mine and access roads.

We are currently conducting research and analyzing several products, methods and technologies to optimize and ultimately reduce our overall water consumption needs. And as we become operational, we will continually be monitoring our water usage and looking for areas of improvement.



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