# Community Connections

Update from Teck's Elk Valley Operations

Winter 2017

## Teck Named One of Canada's Top 100 Employers

# Award Recognizes Teck For Exceptional Workplace Policies

Teck has been named as one of Canada's Top 100 Employers for 2018 by Mediacorp.

Canada's Top Employers program recognizes companies for exceptional human resources programs and forwardthinking workplace policies and the 2018 shortlist was announced in November 2017.

"This award is a reflection of our talented and engaged employees whose commitment, enthusiasm and ability is critical to our ongoing success," said Don Lindsay, President and CEO, Teck. "Teck is focused on building a culture of safety and employee engagement while supporting diversity, innovation and leadership development across our workforce."

Teck is committed to building an inclusive and diverse workplace that recognizes and values differences. We know that having a wealth of ideas, talents and perspectives across our operations will make us a stronger company. That's why we set a goal to build a more diverse workforce by 2020.

Women currently make up 15% of our workforce and, while the number of women has gone up over the past 10 years, we know we can do better. We are making progress, with around 25% of new employees at our Elk Valley operations in 2017 being women. In August 2017, around 200 women and men attended a community information session in Sparwood on Meaningful Careers for Women in Mining. They heard from female employees working across Teck's operations and had the chance to talk to recruiters about job opportunities at Teck.

Under Teck's Impact Management and Benefits Agreement with the Ktunaxa Nation we are working to assist Ktunaxa citizens in gaining the education, training and employment requirements to assist them to better access employment at Teck.

To find out more about a career at Teck, visit **teck.com/careers** 

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Teck

# Our Commitment to Water Quality

We recognize addressing the water quality effects of mining is a legacy issue connected to decades of mining. It is a complex issue, and ready-made solutions do not exist; however, we are making progress.

Teck is fully committed to finding solutions and this work is at the global forefront of managing water quality in mining. Success requires a long-term approach, driven by continued innovation and collaboration.

For more information about our water quality work visit **teck.com/elkvalley** 



### The Challenge

**1.** Mining generates large quantities of waste rock that contains naturally-occurring substances such as selenium, an element that is essential for human and animal health in small amount.

**2.** Water from rain and runoff flows through these rock piles and carries selenium and other substances, such as nitrate, into local waters.

**3.** If present in high enough concentrations in the local watershed, those substances can adversely affect aquatic health.

#### Elk Valley Water Quality Plan and the Environmental Monitoring Committee

In 2014, B.C. Ministry of Environment approved an area based management plan—the Elk Valley Water Quality Plan.

An Environmental Monitoring Committee (EMC) was created as a requirement of the Environmental Management Act (EMA) permit 107517 issued to Teck. The committee reviews monitoring and reporting submissions required under the permit and provides technical advice to Teck and the Ministry of Environment and Climate Change Strategy Director.

The EMC's 2017 annual meeting was held in Fernie on October 25.

Read the annual public report at **teck.com/elkvalley** 

#### Research and Development

Teck is undertaking an extensive, multi-year R&D Program. More than a dozen projects are now underway, focused on:

•Improving mine design to better control release of water quality constituents at the source

•Identifying and piloting improved methods for treating mine-affected water

#### Saturated Rock Fill Project

One major area of R&D work we are undertaking is a full-scale saturated rock fill trial at Elkview Operations to remove selenium and nitrate. This technology involves using naturally-occurring organic processes to treat mine-affected water. Saturated rock fills reduce nitrate and selenium through biologic reduction, similar to active water treatment.

A pilot project-scale trial conducted in 2016 found that approximately 90% of selenium and nitrate is removed from the water through these processes.

There are many benefits to this approach including shorter schedule for design and construction and reduced complexity. We continue to do more research to better understand this potential application, and how it can complement our water treatment approach.



Teck is undertaking an extensive, multi-year R&D program to address water quality

Find out more about Teck's work on water quality at **teck.com/elkvalley** 



### In numbers: Water Quality Monitoring

We are conducting extensive monitoring of the Elk River watershed to improve our understanding of water quality and aquatic health.

# 120

The Regional Aquatic Effects Monitoring Program is completed on a three-year cycle at more than 120 locations throughout the Elk River watershed. Monitoring includes water quality, sediment quality and calcite; periphyton (algae); benthic invertebrates (bugs) and fish. In some cases monitoring also includes birds and amphibians

# 100

Teck is undertaking regular water quality monitoring (at least monthly) at more than 100 stations including the main stem of the Elk River, mine-influenced tributaries and reference areas.

# 50

Mine site-specific monitoring is carried out at more than 50 locations through Local Aquatic Effects Monitoring Programs in order to measure conditions in the receiving environment

**5** / We conduct quarterly regional groundwater monitoring at 37 wells along the <u>Elk River.</u>





A new era of child healthcare has begun as the new Teck Acute Care Centre at BC Children's Hospital opened its doors in October 2017.

Features of the new Teck Acute Care Centre in Vancouver include 231 private patient rooms, a hematology/ oncology department and a pediatric intensive care unit.

Every year, BC Children's Hospital provides expert health care for more than 86,000 seriously ill or injured children from across B.C.

Teck stepped forward in 2008 with a \$25-million donation to support the construction of a new children's hospital. Since then, employees across Teck have supported initiatives such as the annual Mining for Miracles Campaign. In 2017 alone, Teck's Elk Valley employees and contractors raised \$192,000 for the hospital.

"We want to recognize the Provincial Health Services Authority and the B.C. Government for having built an extraordinary facility that will transform child health care in B.C.," said Don Lindsay, President and CEO.

"We also want to acknowledge the generous support from over 80,000 British Columbians who supported the Campaign for B.C. Children. Teck and its employees across B.C. are incredibly proud to have played a role in making this new hospital a reality."



### A Supportive Workplace For Everyone

Teck is committed to providing a supportive, safe, inclusive environment for all employees, regardless of race, gender, sexual orientation or gender identity.

We are proud that two Teck employees, one current and one recently retired, have chosen to share their experiences of coming out as transgender at the workplace.

Former Fording River Operations haul truck driver Marsha Bradcoe (pictured above) and Elkview Operations Blaster Hadden Kellaway (below) tell their stories at **teck.com/connect** 





Environment Coordinator Garry Luini examines native plants at the Horseshoe Ridge reclamation area at Line Creek Operations. After mining ended in 2012, the ridge was resloped and replanted in 2013–2014 with 17 native species including Sitka alder; saskatoon; white mountain avens and silky phacelia, all grown at Tipi Mountain Native Plants using locally-collected seed that represent the pre-mining ecosystem in this area.

# Native Plants at the Root of Reclamation

Behind Teck's more recent reclamation at our Elk Valley operations lies several years of work to collect local seed and grow a mix of native plant species with an aim to mimic pre-mining ecosystem conditions. This effort is part of Teck's larger vision to achieve a net positive impact on biodiversity in areas affected by our activities.

When active mining of a specific area ends, reclamation can begin even as mining continues in other parts of the operation. Locally-sourced tree, shrub, herb and grass seedlings are best suited for the Elk Valley climate and environmental conditions, but accessing large commercial quantities sometimes proves challenging.

To help meet the Elk Valley operations' reclamation needs, Teck works with specialized nurseries to collect and plant native seed—including the Ktunaxa business Tipi Mountain Native Plants at **?aqam**, near Cranbrook. Teck also has an smaller in-house nursery at Fording River Operations focused on native plant species that are sometimes not commercially available. Most recently the Teck greenhouse has been successful in reintroducing an endangered plant, Montana wildrye, back onto the landscape at our Elkview Operations near Sparwood.

"Throughout the summer we collect native plant seed on or near to our mine sites," says Garry Luini, an Environment Coordinator on Teck Coal's Environment and Social Responsibility team.

Some, like fireweed, are quite easy to access but others are much harder. For instance, whitebark pine grows on difficult-to-access ridge tops and may go many years without producing viable cones. Collecting the seed is labour intensive and involves caging the cones while they develop to protect them from birds and squirrels that use them as a food source."

The following year native plant seedlings are planted in former active mining areas—two years after they were collected as seed. The planting plans follow prescriptions that are developed through a combination of on-site studies, First Nations and community consultation and scientific processes that aim to recreate native ecosystem conditions most suitable for the site.



## **Celebrating Coal Mountain**

Coal Mountain Operations celebrated employees and their families with a Family Appreciation Day on September 9.

After more than 110 years of mining operations at Coal Mountain, many employees will be transitioning to other Elk Valley operations as the mine nears the end of its economic steelmaking coal reserves.

Mining is expected to end in March 2018, but before the team parts ways, Coal Mountain's senior management group wanted to recognize each individual's contribution.

"Coal Mountain has always been a close-knit team and we wanted to give our employees a chance to show their family where they work, and to create memories for everyone who has been part of the final phase of operations," said Acting General Manager, Craig Bishop.

Teck began planning for the end of mining at Coal Mountain in late 2015, starting with the commitment to offer uninterrupted employment to employees.

As of November 2017 there are 186 employees at CMO and approximately 70 further employees have now been transitioned to other Elk Valley operations. Most remaining employees will work at CMO until the end of Q3 2018. A small crew will remain at the site to prepare it for care and maintenance stage.

There are no plans for future coal mining activities at the site and potential future uses continue to be assessed.

After coal mining finishes in 2018, the site will enter a care and maintenance phase when non-essential infrastructure will be decommissioned. All available land will be reclaimed under a 10-year reclamation program including resloping, site preparation and replanting of native species that aim to improve ecosystem and biodiversity values of the area.

A Closure Task Group has been formed to continue to seek input from members of local communities on aspects of the closure process, such as minimizing socio-economic impacts, defining end land use objectives and managing access.

#### Share Your Coal Mountain Memories

Teck would like to share past and current employees' memories of working at Coal Mountain Operations. Send your stories and photos to feedbackteckcoal@teck.com







# Our Commitment to Dust Management

Extended dry, hot weather in 2017 created challenging dust conditions in the Elk Valley and we want to assure community members that we take this issue very seriously and are actively working to reduce dust from mining activities.

In 2016 a Regional Air Working Group was formed to support all five mines in the Elk Valley in working together to develop and share best management practices and robust monitoring systems.

Each operation has a dust management program which includes:

- •Water trucks that are used to keep active road and pit areas wetted
- •Hydroseeding to apply seeds and mulch to exposed ground, creating a wind barrier and encouraging vegetation growth
- ·Water sprinkler and water cannon systems
- ·Roads sprayed with tackifier to suppress dust
- Train car treatment
- •Reclamation of former mining areas
- ·Wind fencing on the lagoons (Elkview Operations)
- Truck wash
- •Cameras in Elkford and Sparwood are pointed at operations to show us the community's view of the site to aid in dust management planning

#### Continuous Improvement

In 2018 we will continue to evaluate and develop further dust management solutions and new strategies to minimize dust generation.

If you have any comments or questions on dust please call us at **1.855.806.6854** or email **feedbackteckcoal@teck.com** 

#### Air Quality Monitoring Program

Particles that make up dust come in many sizes; some are too small to see. Teck has continuous monitoring equipment in and around Sparwood and Elkford which monitors the level of fine dust particles that could potentially affect health.

Air Quality regulations that aim to protect human health focus on the smallest particulate matter that is less than 2.5 microns or 10 microns in diameter (PM 2.5 or PM 10)

In 2016, fine particulate matter concentrations in the community did not exceed B.C. or World Health Organization air quality objectives for PM 2.5 and PM 10. To-date in 2017 exceedances were seen only during periods of high smoke and were likely due to forest fires.

Air quality data, as well as other monitoring data, is reported to the B.C. Ministry of Environment and Climate Change Strategy under each operation's permit.

#### New Mister Truck at Elkview Operations

In 2017, Elkview purchased a new and improved water truck that uses mister systems for improved dust management on spoils.

Water tank capacity: 40,000 gallons

Two misters that each spray up to 100 gallons per minute.

#### Community Engagement on Dust

We responded to increased feedback from the local community about dust at our Elkview Operations in August 2017 with:

- 🔇 Information mailed out to every resident in Sparwood
  - A community information booth at Sparwood Mall and Sparwood Farmers Market, where we spoke to over 100 people
- Ongoing work with the District of Sparwood to respond to community concerns

We appreciated the opportunity to hear the community's feedback and to talk about the work we are doing to resolve this issue and will continue to update you on our dust management work in future.



### Local Community Investment in 2017

Teck is proud to support organizations, institutions and initiatives that strengthen communities in the regions where we operate, as well as national and global initiatives.

Our aim is to donate 1% of annual pre-tax earnings to community investments on a five-year rolling-average basis. In 2016, Teck's operations across the world contributed a total of \$11.8 million to registered charities and other groups that serve a charitable purpose.

To-date in 2017 Teck has donated more than \$600,000 to over 180 community programs around our Elk Valley operations, including Sparwood, Elkford, Fernie, Crowsnest Pass, South Country, Cranbrook, Ktunaxa Nation, and other indigenous communities.

Some local contributions supported new community initiatives, such as the Balmer North Miners Memorial wall and bronze statue in Sparwood; Sparwood Secondary School's Welcome Arch project and Fernie Snowmobile Club's snowcat fundraiser.

Other smaller requests helped groups achieve fundraising goals, such as a tent to help Sparwood Old Age Pensioners Society sell baked goods at the Sparwood Farmers Market, or raffle prizes for Elkford's first Walk for Angels and Ducks Unlimited Canada's banquet in Cranbrook. We supported Elkford ATV Club's participation in a regional grizzly bear study and helped students from across the region attend sports tournaments and educational conferences.

Some of the many community events supported by Teck in 2017 include Snowarama; Elk Valley PARTY program; Sparwood Coal Miner Days; Elk Valley Pride Festival; Ktunaxa Nation's Salmon Festival and annual Charity Golf Tournament; Kananaskis Pro Rodeo and Bellevue Days.

Every year since 2014, Teck has sponsored Avalanche Canada's South East Rockies Field Observers who collect local backcountry snow data to improve local avalanche reports. Since 2010 we have also supported Elk River Alliance's work to connect people to the Elk River.

For more information and to apply for funding, visit teck.com/responsibility or contact Tammy Ogden, Community Liaison at tammy.ogden@teck.com



The Teck-Ktunaxa Nation Impact Management Benefits Agreement (IMBA) was signed by Ktunaxa Nation Council (KNC) Chair Kathryn Teneese and Teck President and CEO Don Lindsay at St Eugene Mission Resort in May 2016.

### Teck and the Ktunaxa Nation Impact Management and Benefits Agreement

Teck and the Ktunaxa Nation have signed an Impact Management and Benefits Agreement (IMBA), a comprehensive agreement that sets out commitments and obligations for both parties and that supports continued, sustainable mining in the Elk Valley.

The agreement has advanced our relationship in consultation and engagement, the environment and land stewardship, cultural resource management and employment and business opportunities for Ktunaxa citizens.

The IMBA has the potential to include extensions and the ongoing operation of the mines in the Elk Valley. Spanning approximately 40 years, it is one of the most comprehensive agreements of its kind in place in Canada.

The IBMA marks an important milestone but the relationship itself is the true measure of success and this agreement is just another step in building a strong relationship between Teck and the Ktunaxa.

#### Why is the IMBA important?

- •Formalizes the active, collaborative relationship established between Teck and the Ktunaxa
- •Creates a framework for Teck and the Ktunaxa to address issues and concerns
- •Provides clarity and predictability for both Teck and the Ktunaxa Nation on how mining projects become a part of the IMBA on a case-by-case basis, which will support sustainable mining in the Elk Valley for decades to come
- •Creates certainty for the Ktunaxa so that key Ktunaxa interests in terms of land and water stewardship, reclamation planning, business and employment development, and cultural resource management will be addressed in a manner consistent with Ktunaxa values and governance
- •Includes provisions that allow planned mine extensions to be designated as Contributing Projects

#### How is the IMBA being implemented?

Since the IMBA was signed in May 2016, three working groups have been formed:

- •The Environmental Working Group
- •The Cultural Working Group
- •The Procurement and Employment Operational Working Group

Teck and the Ktunaxa are equally represented on the three working groups.

### IMBA working group members jointly developed a vision for working together:

An enduring partnership for a prosperous and healthy future in **Ktunaxa ?amak?is for ?akxamis qapi qapsin** (all living things).





### Hockey Heroes Come to Sparwood

The Teck Coaching Series brought three Team Canada hockey heroes to kids and coaches from across the Elk Valley in October.

This year's session was hosted by two-time Olympic gold medallist Haley Irwin, Olympic gold medallist Sami Jo Small, and head coach of the 2018 PyeongChang Men's Hockey Team, Willie Desjardins. Players from Fernie Ghostriders also assisted.

The event included a coaching workshop for local hockey coaches, followed by an on-ice hockey clinic for local minor hockey players.

# **Recognition for Mine Safety**

Teck's Elk Valley mine rescue teams achieved top rankings at the 2017 National Western Region Mine Rescue (NWMR) Competition in Fernie, B.C. in September.

Congratulations to the Greenhills Operations Mine Rescue Team for being awarded first place for best score in the overall surface competitions, with top scores in best first aid and best extrication. Greenhills attended the NWMR competition as the 2017 B.C. Provincial Mine Rescue champions.

Congratulations also to the Elkview Operations Mine Rescue Team who won the best written, best practical bench and best fire categories at the event, having placed second in the 2017 provincial competition

Earlier in 2017, Greenhills Operations was awarded the John T. Ryan National Safety Trophy as the safest coal mine in Canada for 2016. This is the fourth consecutive year that Greenhills Operations has received the award, which goes to the mine that experienced the lowest reportable injury frequency per 200,000 hours worked in Canada. Greenhills also won the 2016 John Ash award for the lowest injury-frequency rate in a B.C. mine with over 1,000,000 worker hours.

Greenhills and Fording River Mine Rescue Teams were also recognized with the B.C. Chief Inspectors' Award for their life-saving actions in the line of duty.

We're sharing Teck's stories on social media. Follow us online to find these and more.

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# **About Teck**

Teck operates five steelmaking coal operations in the Elk Valley and is the largest employer in the East Kootenay with over 4,000 employees, contributing to our position as the world's second-largest seaborne exporter of steelmaking coal.

Teck is committed to responsible and sustainable mining, and for eight straight years has been named to the Dow Jones Sustainability World Index—indicating our sustainability practices are in the top 10 percent of the 2,500 largest companies in the world.

Community Connections is produced by our Social Responsibility group in Sparwood and is distributed to the communities near our operations, including the Elk Valley, Crowsnest Pass and South Country, and online at teck.com/elkvalley

# We Want to Hear From You

We welcome your comments on this publication, or any aspect of Teck's activities.

- 🔇 Phone toll-free to **1.855.806.6854**
- Email feedbackteckcoal@teck.com
- Fill in a feedback form at our community boxes: District of Sparwood office; District of Elkford office; Fernie College of the Rockies; Crowsnest Pass Town Office; Ktunaxa Nation Government Building.

We will respond to all feedback received that includes contact details.

# Happy Holidays

We wish you a safe and happy holiday season.

