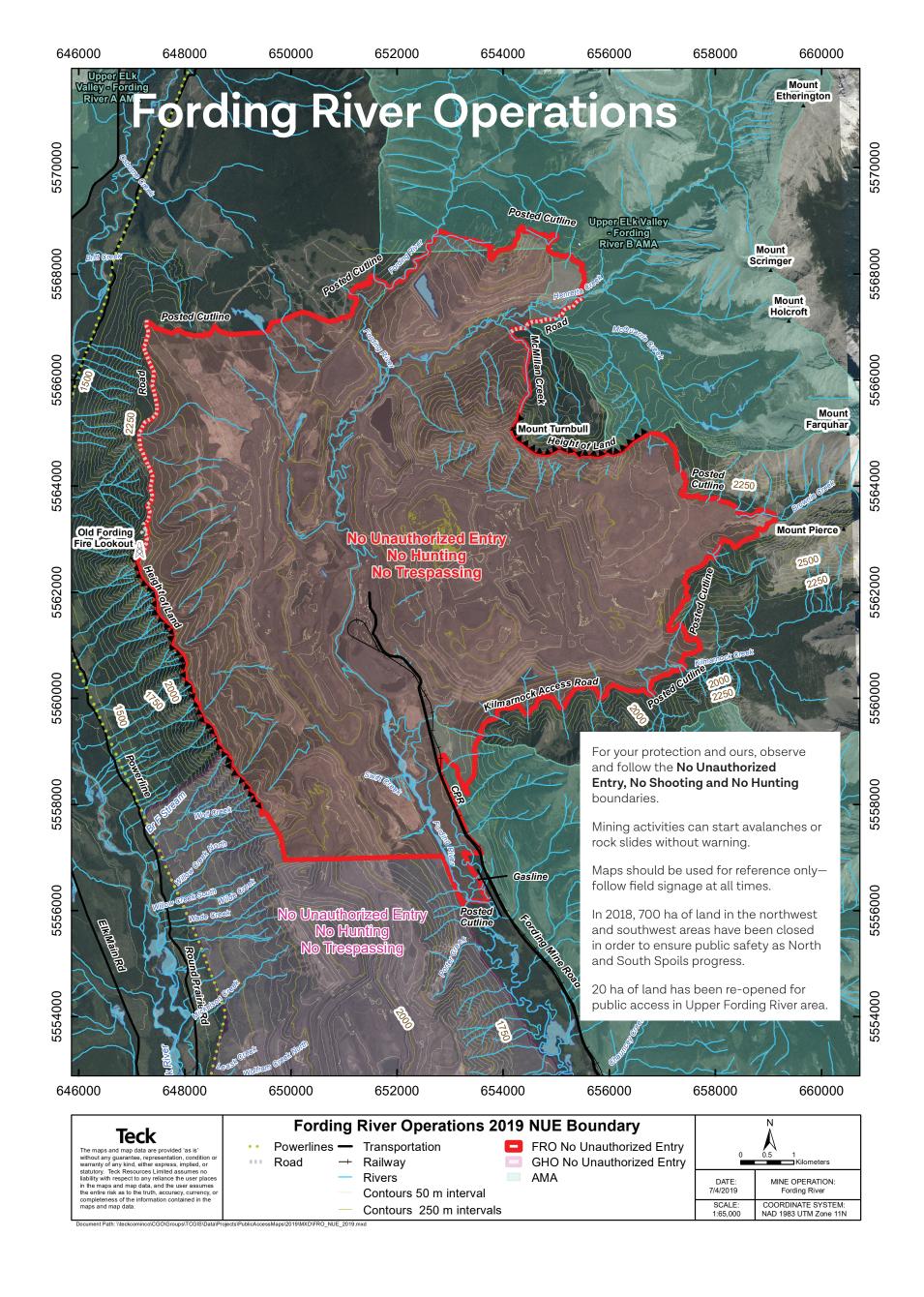


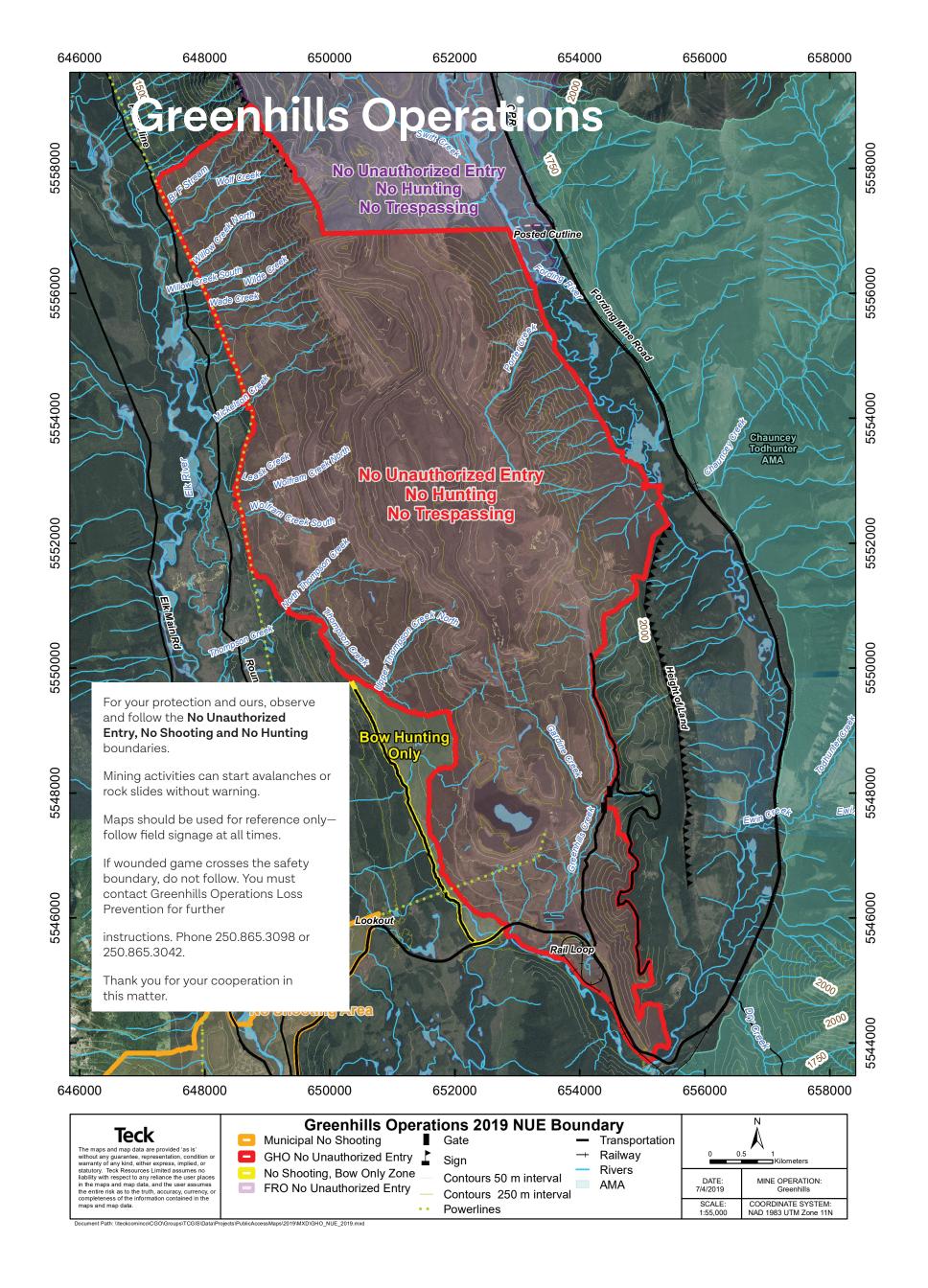
# **Teck Conservation Lands**

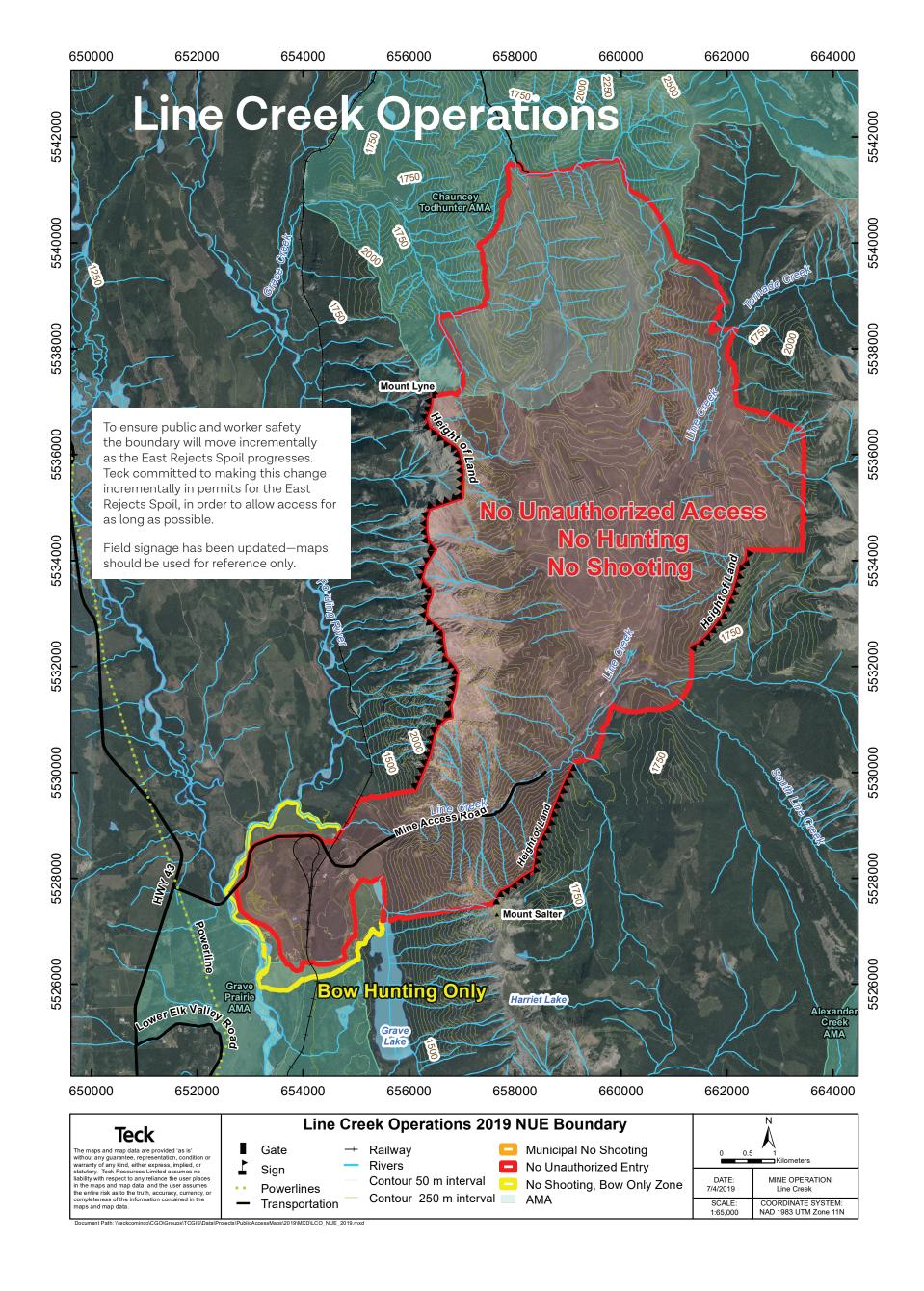
Teck will be working in cooperation with First Nations, communities and other stakeholders to develop management plans that focus on the conservation of key habitats for wildlife and fish in the Elk Valley and Flathead River Valley for the future.

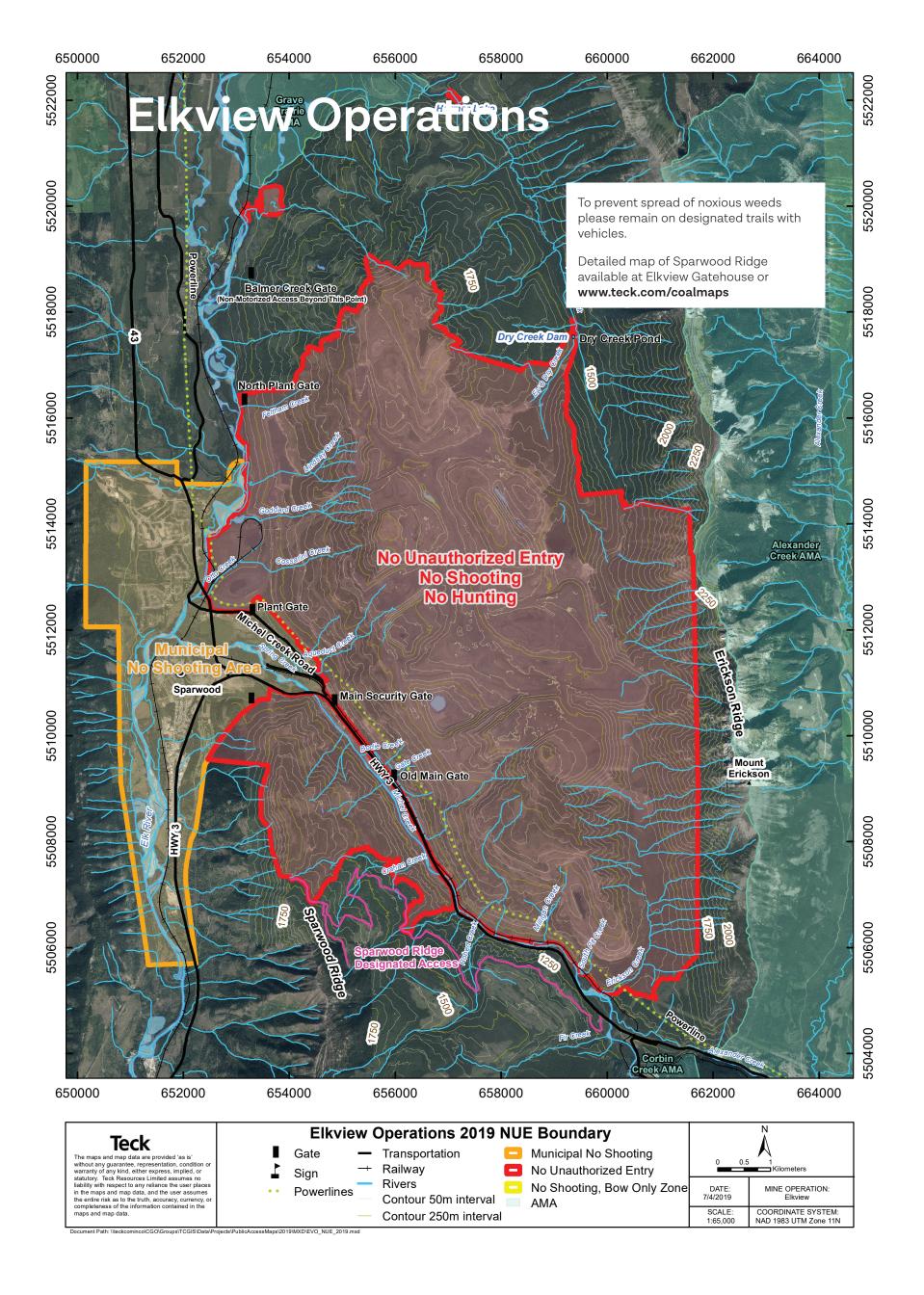
Please keep conservation in mind when you are enjoying recreation activities on these lands and respect the existing Access Management Areas on the Grave Prairie and Alexander Creek lands. Electronic maps and coordinates at

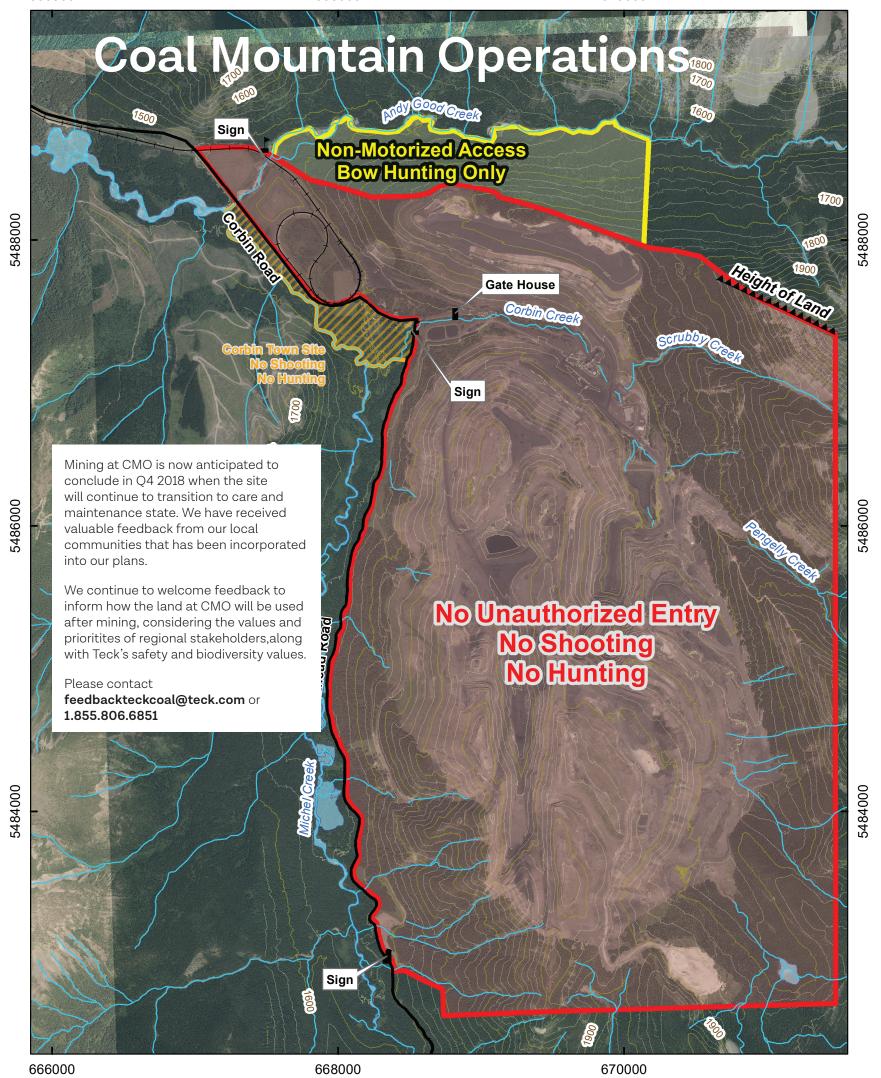
www.teck.com/coalmaps











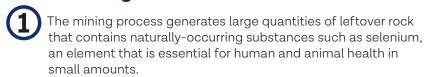
#### **Coal Mountain Operations 2019 NUE Boundary** Teck Gate Railway Corbin Town Site No Shooting Rivers Sign No Unauthorized Entry $\mathsf{AMA}$ MINE OPERATION: Coal Mountain Powerlines DATE: 7/4/2019 No Motorized Access, Contour 25 m interval Transportation COORDINATE SYSTEM: NAD 1983 UTM Zone 11N **Bow Hunting Only** Contour 100 m interval

# **Our Commitment to Water Quality**

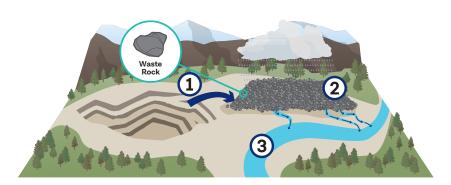
We recognize addressing the water quality effects of mining is a legacy issue connected to decades of mining. It is complex, and ready-made solutions do not exist; however, we are making progress.

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.

### The Challenge



- Water from both precipitation and runoff flows through these rock piles and carries selenium and other substances, such as nitrate, into the local watershed.
- If present in high enough concentrations in the watershed, these substances can adversely affect aquatic health.



### Elk Valley Water Quality Plan

In 2014, British Columbia (B.C.) Ministry of Environment approved an area based management plan—the Elk Valley Water Quality Plan (EVWQP). The Plan was informed by scientific advice received from a Technical Advisory Committee chaired by B.C. Ministry of Environment with participation from government, First Nations, an independent scientist and community input received through three phases of public consultation in Elk Valley communities.

An Environmental Monitoring Committee (EMC) was established to advise on the implementation of the plan. The EMC consists of experts from the B.C. Ministry of Environment, B.C. Ministry of Energy and Mines, the B.C. Interior Health Authority, the Ktunaxa Nation Council, an independent scientist and Teck. The EMC reviews and provides input and advice to monitoring reports and study designs. Each year, the EMC hosts a public open house and releases a public report at www.teck.com/elkvalley

## Research and Development

Teck is undertaking an extensive, multi-year Research & Development Program, focused on:

- Improving mine designs to better control release of water quality constituents at source
- Identifying and piloting improved methods for treating mine affected water
- · Approximately 20+ projects are underway now.

# Pilot Study Success: Saturated Rock Fill Project

The Saturated Rock Fill (SRF) facility at Teck Elkview Operations, commissioned in January 2018, is achieving near-complete removal of selenium and nitrate in 10 million litres of mine-affected water per day.

We are now pursuing a second phase of this technology that would double the capacity of the SRF facility at Teck Elkview Operations to treat 20 million litres of water per day. SRFs are a new form of water treatment that has the potential to augment or replace traditional treatment technology. It uses a form of active in situ treatment using naturally-occurring biological processes in water collected in former mining areas to treat and improve water quality.

Going forward, work on the SRF will focus on proving out the results of the Elkview facility and working towards potential broader implementation of SRFs.

### **Implementing Water Treatment**

### 1. West Line Creek Active Water Treatment Facility

- · Commissioned in February 2016
- 7.5 million litres per day water treatment capacity
- Meeting design targets for selenium and nitrate reduction:
  - Selenium concentrations are reduced by about 96% in treated water
  - o Nitrate concentrations are reduced by over 99%
- A challenge related to selenium compounds in discharge water was identified; an Advanced Oxidation Process (AOP) was selected through piloting in 2017 as the best option to address this issue; and is now in operation

#### 2. Planned Active Water Treatment Facilities

Fording River Operations is now under construction and planned to begin commissioning 2021. When complete it will process 20 million litres of water per day.

## **Our Ongoing Commitment**

Further projects include the Tributary Evaluation Program; Calcite Assessment; Human Health Risk Assessment and fish habitat rehabilitation work.

### **Find Out More**

To learn more about our water quality work and provide your feedback and suggestions, go to **www.teck.com/elkvalley** or call **1.855.806.6854**