

## Information Sheet #1 – History of the Area Based Management Plan

### Mining History

Coal mines have operated in the Elk Valley since 1898. Until 1970, mining operations were small and mostly underground. In the 1970s, mining transitioned to larger scale open pit (surface) mining. Waste rock generation has increased significantly since the 1970s, with the creation of valley-fill waste rock areas.

In the 1990s, increasing levels of selenium, nitrate and sulphate were found in the water downstream of the mines. The increases resulted from land and water disturbance and the waste rock generated by the mines.

Calcite formation was also discovered in some of the streams close to the mines. Accumulation of calcite can impact the availability and quality of habitat for fish and other aquatic species. Calcite can also directly impact plants and aquatic organisms.

### 2014 Elk Valley Water Quality Plan

In 2013, the Minister of Environment required development of an area based management plan (ABMP) for the Elk Valley. This decision was in response to water quality conditions above provincial guidelines, and evidence of increasing calcite accumulation in some watercourses.

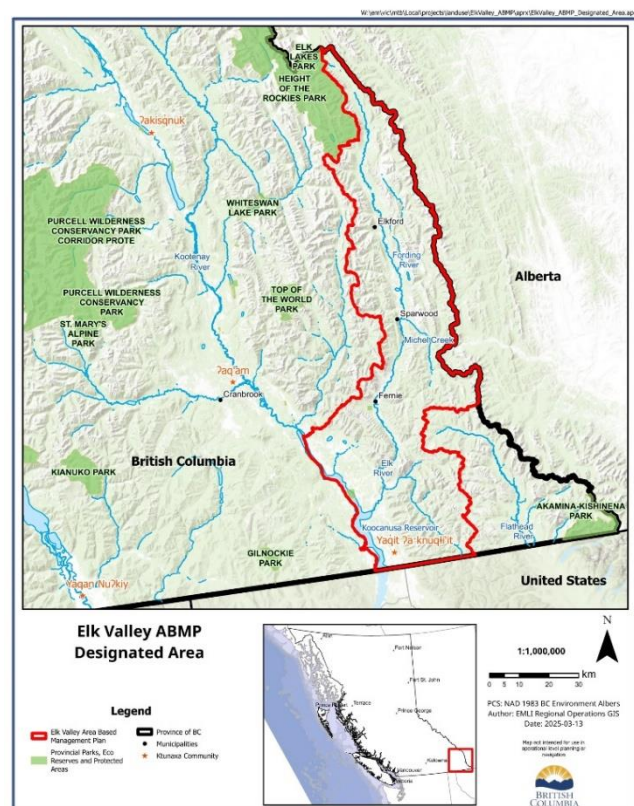
Teck Coal Limited (now EVR Operations Limited) developed the 2014 Elk Valley Water Quality Plan (2014 EVWQP) to fulfill the requirement for an ABMP. It was approved by the Minister of Environment in 2014.

The 2014 EVWQP was designed to manage water quality and to stabilize and reverse the increasing concentrations of specific substances in the water. The 2014 EVWQP used the best available science to set short-, medium- and long-term targets for concentrations of selenium, cadmium, nitrate and sulphate in water. Targets to manage calcite formation in stream beds were also set.

The 2014 EVWQP used a phased approach of decreasing regional targets. This allowed time for:

- technology to advance,
- treatment facilities to be constructed and become operational, and
- continuing research and scientific development.

The area based approach under the 2014 EVWQP focused on protecting the overall health of aquatic ecosystems in the Elk River watershed. It supported the management of cumulative effects from multiple mines. The region to which this plan applies is called the Designated Area (see figure below). It encompasses the Elk River watershed including the Canadian portion of Koocanusa Reservoir.



Learn more about the Elk Valley Area Based Management Plan on B.C.'s Elk Valley Water Quality Hub Website: [Area based management – Elk Valley Water Quality Hub](#)