

The Future of Copper and Zinc Supply

Industry analysts predict that copper and zinc production from existing mining operations will peak around 2022. In addition to the usual demands for these key base metals in electrification, transport, and infrastructure, demand for copper is buoyed by electric vehicle manufacturing and charging station infrastructure and zinc by increased battery demand. Time is tight for locating, permitting and bringing new mines into production.

According to Keval Dhokia, commodity analyst for S&P Global Market Intelligence, demand for mined copper will begin to outpace committed supply by 2022. In a July 2019 Mining Beacon webinar, Dhokia said that more financing of uncommitted projects is required for mine supply to keep pace with copper-intensive demand trends. Zinc stocks are also being depleted, according to recent Wood Mackenzie commodity market reports, and set to remain low until 2020. The zinc market is impacted heavily by trade tensions between the US and China, and the zinc smelting industry's inability to physically meet demand.

Bottom line

In 2017, Canada produced 604,481 tonnes of copper and 344,294 tonnes of zinc. However, Canadian zinc and copper production has fallen over the last decade, with established mines closing their doors after decades and few new projects coming online.

What is the answer? According to Dhokia, it is time for the "rise in mammals after the dinosaurs". With reserves declining at the world's largest copper mines – the so-called dinosaurs – now is the opportunity for small and mid-size mines to take their place, just as mammal diversity exploded 65 million years ago when the dinosaurs were wiped out.

Rise of the mammals

Foran Mining's flagship McIlvenna Bay copper-zinc deposit in east-central Saskatchewan is one such mid-size deposit, poised to step into the space that will be left when Hudbay's Flin Flon mine, across the border in Manitoba, closes in 2021. McIlvenna Bay is a volcanogenic massive sulphide (VMS) deposit in the Hanson Lake District on the western edge of the Flin Flon Greenstone Belt, one of the most prolific mining belts in the world.

Foran released an updated resource estimate in May 2019 that increased the indicated resource at McIlvenna Bay by 65 per cent to 22.95 million tonnes, compared to the 13.9 million tonnes announced in the 2013 report. The 2019 indicated resource, based on drilling completed in 2018, contains 1.5 billion pounds of zinc and 590 million pounds of copper.

"We now believe we have the second largest VMS deposit in the Flin Flon camp," said Foran Mining President and CEO Patrick Soares, "It's smaller, higher grade, less capital intensive to build, and has a variety of metals beside copper, including zinc and gold."

In order to satisfy global demand for copper and zinc beyond 2022, and mine the looming gap between demand and supply, new resources need to be identified, developed and accelerated toward production. Deposits such as McIlvenna Bay, in responsible mining jurisdictions, are poised to fill the gap left by the giant mines coming to the end of their lives, if we have the foresight to advance them before the next mass extinction hits in 2022.