

What evidence exists on the measures and outcomes of ecological restoration for areas impacted by mining activity in Canada? A systematic map protocol

Eligibility Criteria

Population: Canadian mined areas.

The publication must describe a project in Canada and must involve mining activity across an area or at a mine site. In the context of this project, mining is defined as the extraction, refining, or processing of mineral and metal resources, and a mine is considered to be the physical location associated with mining activity. All quarry and rock products (sand, gravel, clay, limestone, stone, coal) as well as oil sands mining are included. All associated products and by-products of the mining industry (i.e. refined product, processing plants, waste management) will be considered and included. All stages of mining activity (i.e. pre-exploration, exploration, development, operation, and closure) are included. Mining of peat, oil, natural gas, and seabed mining are not included due to: 1) a lack in mineral/metal resources or 2) different disturbance levels on the landscape resulting from extraction or 3) legal requirements in place preventing extraction. Abandoned mines are excluded, unless natural regeneration was specifically selected as a recovery strategy, or restorative treatments are being applied post-abandonment.

Intervention(s): Ecological restoration activities.

The publication must include some form of restorative activity aimed at recovery of the site or area. This includes passive and active forms of restoration, as well as recovery of ecological and social components of an ecosystem. Any component of a restoration project at any stage of the restoration process is included. Publications that focus on mitigation compensation measures are excluded.

Comparator(s): Different ecological restoration activities for the same mined area with or without a control, Before-After-Control-Impact activities. There are no exclusion criteria for this component.

Outcome: Any measure or outcome of restoration activity.

This includes any measure of restoration activity, at any stage of a project, and/or any outcome of restorative activity, at any stage of a project.

Study design/publication types: Publications must be in English. There is no date range restriction for this evidence synthesis. Academic publications, conference proceedings, government reports, private company reports, theses and dissertations, book chapters, magazine publications, and relevant websites are included. Secondary research, guidelines, ex-situ experiments or studies, and theoretical studies will be excluded. Sources that focus on modelling applications will be excluded unless they are specifically used in the planning stage of a restoration project. Case study research where specific mining areas/sites and outcomes of restoration actions cannot be individually distinguished are excluded.