

Energy Activities: Site Restoration

How an Energy Resource Activity Site Becomes Green Again



Energy resource activity sites are temporary; therefore, companies are required to plan ahead at the start of any development to [restore the environment at the end of use](#).

Companies must minimize disturbance to land before and during operations. In some circumstances, companies must restore the land surface of a site as soon as the construction is complete. This decreases the amount of work necessary to return the area to its pre-activity state later on and ensures any disturbance to the environment is minimized and public safety is protected.

When a well site becomes **inactive** and will not be re-activated, there are a number of steps required to reclaim the site. The first step is to **deactivate** the site. Fluids and gases are removed from pipelines, and surface infrastructure.

The next step is to plug and seal the well. This is known as **abandonment**. Well holes in the oil or gas reserves are sealed off and cement is poured into the wellbore to plug it. This ensures nothing can escape from the well into the environment.

After the well is plugged, decommissioning occurs where surface equipment is removed from the site for recycling or disposal.

Once these steps are complete, the site is further investigated for contaminants, and any impacts can be remediated.

Once there is acceptable environmental quality, soils can be replaced and revegetated.

Once the site is completely reclaimed, the company can apply for a Certificate of Restoration (CoR), which is authorized by the BC Energy Regulator (BCER) and signifies the site has been cleaned up to current standards.

On rare occasions an operator is declared bankrupt or cannot be located before a site is reclaimed. In such cases, the site may be designated an **orphan** and is cleaned up by the BCER. Regardless of what lifecycle step the site is in, any remaining restoration work is paid for from the industry-funded [Orphan Site Reclamation Fund](#). Work is then monitored by the BCER. This ensures sites are restored in accordance with current standards and requirements and that all known contamination risks or other hazards are mitigated.



Reducing Environmental Impacts

1

The BCER ensures operators plan energy resource activities to:

Avoid and/or minimize impacts to environmental values.

2

Mitigate impacts where no realistic opportunity exists to avoid.

3

Restore the impacted area to its pre-development state.



Public Concerns and Complaints

Report concerns such as odours, spills or noise.

1-250-794-5200 (24-hour public number) or 1-877-500-BCER (2237) (24-hour toll free).

Incident Reporting for Industry

1-800-663-3456 (24-hour emergency number). Report oil and gas related incidents.

Regulating Energy Activity Sites Closure

The BCER introduced regulations making B.C. the first province in western Canada to impose in law timelines for the restoration of oil and gas wells. [The Dormancy and Shutdown Regulation](#) is included in the [BCER's Comprehensive Liability Management Plan \(CLMP\)](#) which ensures 100 per cent of the cost of reclaiming energy activity sites continues to be paid by industry, protecting public safety and safeguarding the environment.

The Dormancy and Shutdown Regulation speeds up the rate at which inactive sites are returned to their pre-activity state. The regulation gives each dormant well site a prescribed cleanup timeline and imposes requirements for decommissioning and restoration.

An integral part of the CLMP includes rigorous compliance and enforcement checks, proactive monitoring and inspection, and investigation and enforcement of alleged non-compliance.

Reclamation of ALR

A preliminary reclamation plan for activity falling within the [Agricultural Land Reserve \(ALR\)](#) is submitted at the time of application and outlines how the site will be restored once it is no longer required for the energy resource activity. It must include land-use objectives, soil handling and re-vegetation plans.

Restoration Requirements

Restoration expectations are identified in Section 19 of the [Environmental Protection and Management Regulation \(EPMR\)](#). Guidance for planning and carrying out restoration activities are available on the BCER's [Remediation, Reclamation & Restoration](#) webpage for Energy Professionals.

What is the CoR Process?

The Certification of Restoration (CoR) process ensures land used for energy resource activity development is restored to a safe and productive condition. This is done in a two-stage process:

1. The operator completes a professional environmental assessment and, if necessary, address potential contamination issues.
2. A professional assessment of the surface reclamation is done to ensure site productivity is adequately restored.

The process places the responsibility on the operator to provide a report from a professional to review all documentation and assess

for potential contamination. Most sites require some level of physical site investigation (soil and/or groundwater).

To ensure operators have the financial means to restore a site, the BCER has a Liability Management Rating Program, wherein operators with insufficient assets are required to submit a deposit prior to being allowed to operate.

However, there are rare occurrences where a permit holder for an existing site is insolvent or cannot be identified. These sites can be designated by the BCER as [Orphan Sites](#).

