

Orphan Site Restoration

Respecting those affected by orphan sites



Nice to meet you.

Mike Janzen

Director, Orphan Planning & Restoration
BC Oil and Gas Commission

Our team is here to answer questions





The Commission's Plan provides a clear path forward to hold industry accountable, address unrestored oil and gas sites, protect public safety and safeguard the environment.

The Commission's Comprehensive Liability Management Plan

- Holds industry accountable for all costs associated with the cleanup of oil and gas sites.
- Makes B.C. the first province in western Canada to impose in law timelines for the cleanup of wells.
- Implements a goal to restore existing orphan sites within 10 years of designation.
- Addresses potential issues of corporate health or operational risk with companies before any development activity can take place.

New legislation supports the plan under three categories:

Permit Decisions

The Commission considers the conduct of companies when deciding whether to approve applications.

Dormant Sites

The Commission is implementing a set of regulations with timelines for the decommissioning and restoration of sites.

Orphan Levy

This levy ensures proportional permit holder contributions, helping preserve the 'industry pays' approach.



Funding for the Orphan Site Reclamation Fund

The Commission has crafted an orphan levy based on a company's share of B.C. liability, instead of on the fixed tax on gas and petroleum.

Under the current model, the Commission sets the orphan funding required in a given year and charges permit holders a levy.

$$\text{PERMIT HOLDER LIABILITY LEVY} = \frac{\text{PERMIT HOLDER LIABILITY}}{\text{TOTAL LIABILITY}} \times \text{AMOUNT TO BE RAISED BY THE LEVY}$$

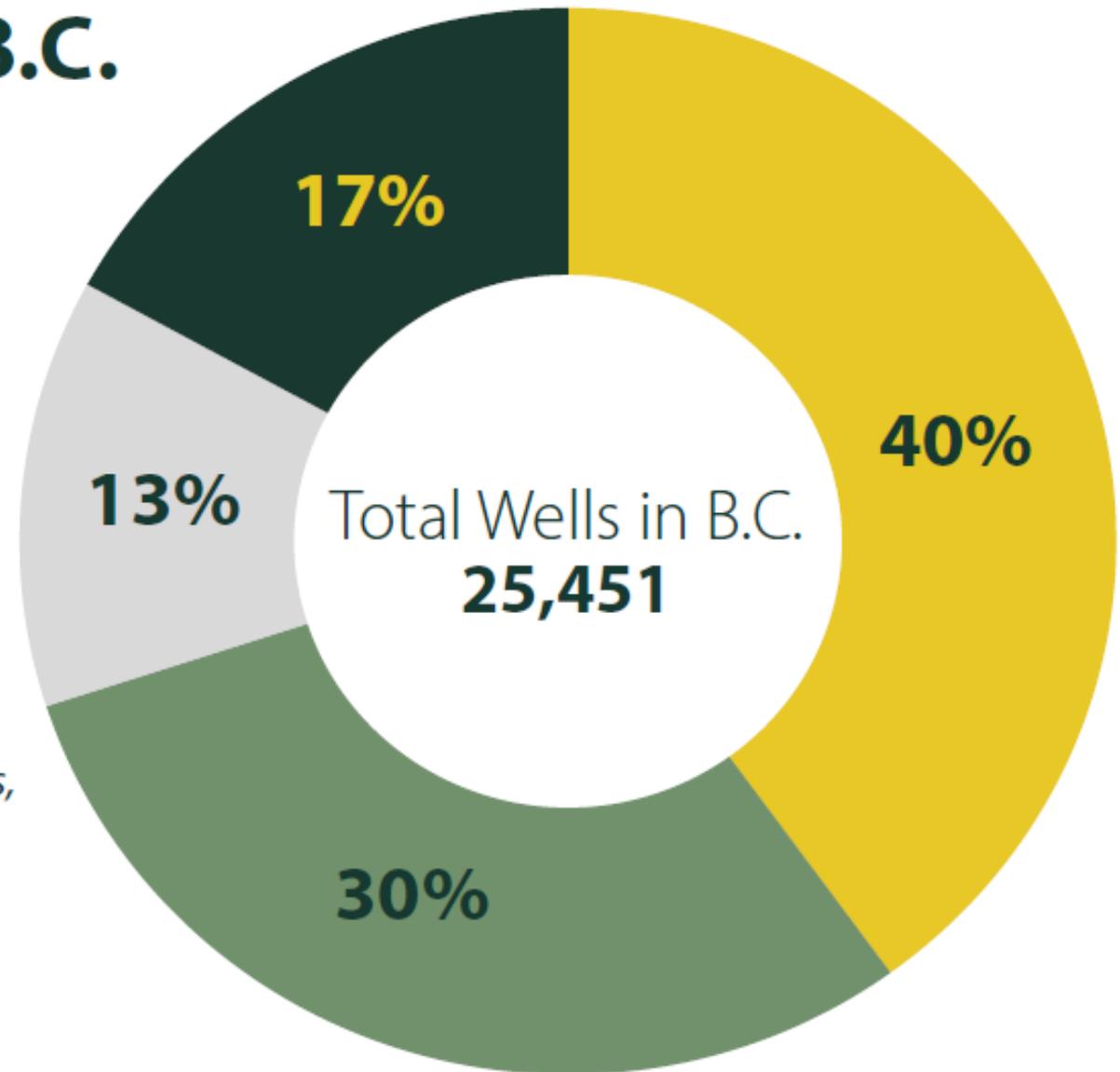
Introducing the new liability levy to fund orphan site restoration maintains the 'industry pays' approach, ensuring no direct cost to B.C. residents.

Well Populations in B.C.

- Active Wells
- Inactive Wells
- Abandoned Wells
- Wells with a Certificate of Restoration

Orphan wells can be in all categories, except Active Wells.

Excludes wells under development.



Orphan Wells in B.C.

- Wells owned by a viable operator
- Orphan wells (346 total)

1.4%

Total Wells in B.C.
25,451

98.6%

Orphan wells make up just over **one per cent** of all oil and gas wells in British Columbia.

Before sites become orphans, they remain the responsibility of the operator

- Companies may enter insolvency proceedings (receivership) if they are unable to pay debts to creditors.
 - Receivership takes place under authority of the courts using federal bankruptcy legislation.
 - Receivers may conduct a sales process to identify purchasers.
 - The Commission monitors and inspects oil and gas activities to ensure protection of public safety and the environment, and may undertake any required work.
 - We are also engaged in the proceedings to monitor sales to minimize risk to the Orphan Fund.
 - Any decisions on orphan designation may follow receivership, including additional actions against the permit holder.

How We're Addressing Orphan Site Treatment and Closure

The Commission addresses concerns about inactive and abandoned oil and gas sites in B.C. that may no longer have a viable operator.

In cases where an oil and gas operator is insolvent or cannot be located, the Commission may designate the operator's sites as orphans.

Once declared an orphan site, the Commission restores using the industry-funded Orphan Site Reclamation Fund.

Currently, the Commission has 346 orphan sites at various stages of restoration.

The industry-funded OSRF means B.C. residents are not on the hook for a **single dollar** of site cleanup.





Supporting Land Owners

In the course of developing natural resources below their land, an operator may become insolvent. In these cases, site maintenance, safety and restoration become the Commission's priority.

Land owners are not responsible for managing or maintaining orphan sites.

Land owners can apply for compensation for outstanding rental payments or land disturbances in relation to the surface lease of an orphan site on their land.

Liens and rental payments

It is not the responsibility of the land owner to pay property taxes owed by oil and gas companies.

The Ministry of Energy, Mines and Petroleum Resources has jurisdiction for access to private land and any associated compensation.

The Commission has not been granted any powers to address compensation, taxes and liens on personal property.

For sites that are not orphans, missed rental payments may be pursued through the Surface Rights Board.

Land owners with liens on oil and gas sites on their property may contact the Land Title and Survey Authority to inquire about removal.

We have engaged the Ministry and they are looking for ways to prevent liens from being registered on petroleum leases on private land.

Compensation for orphan sites

- Land owners with orphan sites on their property will receive Commission communications.
- Compensation may be provided by the Commission for missed rental payments for orphan sites, which would include payments while work is carried out.
- There are two options for applying for compensation:
 1. **Apply through the Surface Rights Board:** Land owners have the right to pursue legal options for collecting money owed to them, and those that wish to pursue will apply through the Board. In addition to making an order to the company, the Surface Rights Board will inform the Commission and we will review. An application must be made each year when payments are due and unpaid.
 2. **Apply directly to the Commission:** Those that do not wish to pursue collections can come directly to us. We will process the application once, and if approved, continue annually until work is complete.

Our Work Plan

- The closure of orphan sites is a multi-year process.
- A site that requires all work phases to be completed may take more time than a site only requiring surface reclamation to replace soils and vegetation.
- We have a program which ensures we get the resources to support closure and reclamation of all orphan sites.
- Once sites are made safe, closure work considers the interests of impacted private land owners, the interests of impacted Indigenous communities and restoration goals.



Restoration Process

2. Well Abandonment

Permanently plug and
cup/cap wellbore

1. Deactivation

Pig and purge lines
and drain equipment

A decorative graphic of a tree trunk and branches in shades of yellow and gold, positioned on the left side of the page. The trunk is thick and curves slightly to the right. Two smaller branches with three leaves each extend from the trunk, one higher and one lower.

4. Site Investigation

Complete investigation of soil and groundwater

3. Site Decommissioning

Remove and salvage/
dispose of equipment

6. Reclamation

Redistribute soils and revegetate for return to pre-disturbance state

5. Remediation

Complete remediation of any confirmed contamination



Cleanup on Agricultural Land

- Site restoration work on Crown land must meet requirements to redistribute and re-contour surface soils, restore natural drainage and revegetate with suitable species.
- There are also specific provisions for restoration of oil and gas sites in the **Agricultural Land Reserve**. Through agreement with the Agricultural Land Commission, we ensure site reclamation work is completed in compliance with requirements to return the land to its pre-activity state.
- The Commission will work with land owners to complete reclamation for orphan sites on their land.

Partnering with Indigenous People on Crown sites

Creating opportunities

Collaborating on work and examining the role of traditional knowledge in restoration work.

Providing orphan partnership projects

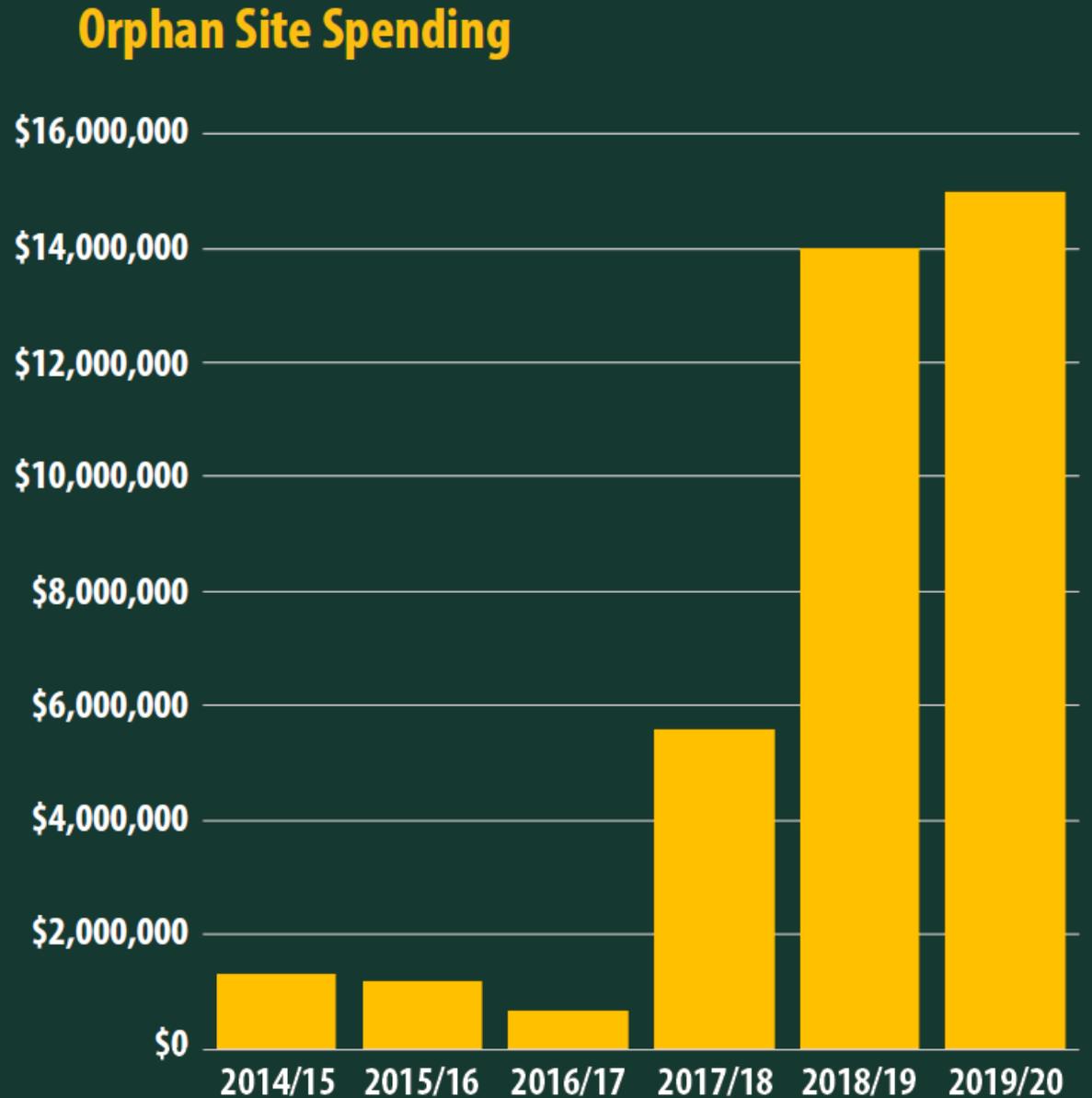
Collaborating on assessments, planning, surface reclamation and monitoring outcomes.



Orphan Site Reclamation Fund Spending

The Commission estimates spending up to \$15 million a year to fully restore existing orphan wells within a 10-year timeline.

OSRF spending has increased three-fold since 2017/18 - at the same time the number of orphan sites increased.



Decommissioning and restoration programs are area-based, large and efficient.

What we've done over the last two years:

Purged all pipelines to remove gases and fluids.

Completed the downhole abandonment of more than 130 wells.

Decommissioned more than 60 facility equipment sites.

Investigation and restoration work undertaken on more than 20 sites.

Large scale and area-based efficiency allow us to do more with less.

This is in addition to the 20 sites where all work was completed and has been granted a Certificate of Restoration.

What we're planning over the next 12 months:

- Complex abandonment, decommissioning and reclamation program in the remote Beaver River field.
- Additional well abandonments in the Peace River Block.
- Removing remaining equipment in the Stoddart and Sunrise areas.
- Investigate all sites in the Stoddart area and plan for remediation and reclamation.
- Reclaim sites in the Sunrise area.
- **We will be communicating with land owners having activity on their property.**

As decommissioning is completed, attention can be turned to investigation and restoration programs.

Following the next 12 months, we will have made significant progress on existing orphan sites

- Over 80% of all orphan wells (85% on private land) will have been permanently plugged and abandoned.
- Over 75% of all orphan sites (90% on private land) will have no facility equipment remaining.
- Over 17% of orphan sites will be substantially reclaimed.

With large accomplishments in abandonment and decommissioning, we can turn our attention to more reclamation work in the next few years.

Questions?

For more information:

<https://bcogc.ca/public-zone/orphan-site-management>

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