

Land Rehabilitation & Asset Handover

Chapter 09

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- **Rules for plugging & abandoning gas wells**
- **New guideline to enable gas infrastructure transfer**

Current as of February 2022

Land Rehabilitation & Asset Handover

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At the end of a gas field's operating life, aboveground infrastructure is removed the wells decommissioned in line with the State Government's code of practice.

Landholder compensation comes to an end once the land has been rehabilitated and relinquished.

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Rehabilitation responsibilities

TECHNICAL NOTE:

RESTORATION VS REHABILITATION

Restoration can occur during the life of the resource project. For example, handing the site back to the landholder whilst resource company infrastructure is still in place. Rehabilitation is the final phase – when a site is returned to its original condition, pre-resource project.

The rehabilitation of gas field sites and facilities occurs at the end of operations, in consultation with the landholder and in line with current Queensland legislation. The government requires that rehabilitation commences within 6 months of infrastructure no longer being required.

At the end of a well's operating life (usually 15-30 years) aboveground infrastructure is removed, the borehole is filled with cement or other suitable material, decommissioned, and a small dinner plate-sized cap or a stake with an identifier is left behind to mark its location.

The conditions of the EA state the standard and end use the land must be restored to. At a minimum, final rehabilitation ensures that:

- Affected areas are stable
- Surface drainage lines are re-established
- Topsoil is reinstated
- Vegetation is regenerated.

The effective decommissioning of wells at end-of-life is crucial to avoid potential environmental legacy effects.

The ultimate authority to decide if decommissioning and rehabilitation has been properly completed lies with the State Government.

Consultation with landholders is mandatory. Landholders must declare if they are satisfied with rehabilitation works, and may also negotiate to retain some of the infrastructure (e.g. fences, concrete slabs, dams) if that suits their future objectives. The Queensland Government requires all resource companies to provide upfront financial assurance to cover the estimated costs of final land rehabilitation.



Case study

REHABILITATION PROTOCOL - SHELL

Shell's QGC business has a policy of replacing subsoils, topsoils, any cleared woody vegetation or mulch and seeding an area after construction.

The company also installs drainage, erosion and sediment control devices such as berms and rock checks to minimise the risk of losing topsoil.

During operations the resource company maintains a footprint such as well pads, access tracks or areas cleared of woody vegetation across the top of pipelines to ensure access, safety and infrastructure integrity.

The aim is to rehabilitate any disturbance to background condition on completion of petroleum activities.



TECHNICAL NOTE: REMOVING AGREEMENT FROM LAND TITLE

Any valid CCAs or opt-out agreements are bound to the property and any future owners of the property, as well as any new holders of the resource authority.

These agreements remain attached to the property title until the resource company applies to remove it (when the agreement ends or no longer applies to land as a result of subdivision).

The resource company must apply to remove a valid agreement from the land title within 28 days of the agreement ending or being no longer applicable.



Rules for plugging & abandoning gas wells

Just as all gas wells must be drilled and completed in accordance with safety and other requirements of the [Petroleum and Gas \(Safety\) Regulation 2018](#), all wells must be plugged and abandoned in accordance with that same regulation.

A [Code of Practice](#) that is overseen by [Resources Safety & Health Queensland](#) ensures all petroleum and gas wells and associated bores are constructed, operated and abandoned to a consistent acceptable standard to ensure safety through long-term well integrity.

The code outlines industry standards and good practice for well design. It is designed to complement the resource company's internal risk assessment processes, operating standards and procedures by outlining a recommended process to ensure:

- Risk to the public and workers is managed to a level as low as reasonably practicable
- Regulatory and applicable Australian and international standards/requirements, as well as the resource company's standards, are understood and implemented where appropriate
- The life of a well or associated bore is managed effectively through appropriate design and construction techniques and ongoing well integrity monitoring
- The environment and groundwater resources are protected.

At the end of the rehabilitation process, the State Government resumes its stewardship of any surrendered or relinquished resource tenures, on behalf of all Queensland citizens.



New guideline to enable gas infrastructure transfer

A new guideline has been published by DES to help facilitate the transfer of infrastructure from petroleum and gas activities (like bores, access tracks, small dams, fences and sheds) to Queensland landholders. The process is part of the Queensland Government's commitment to work in partnership with industry to keep the economy moving through the COVID-19 recovery phase.

DES recognises the value of certain petroleum and gas infrastructure, particularly for agriculture, and that landholders could significantly benefit from having access to these assets. As part of any transfer, the operator will need to ensure that the infrastructure is safe, stable and doesn't cause environmental harm.

The types of infrastructure that can be transferred include items commonly constructed on farmland such as bores, access tracks, hardstand areas, pipes and pumps for irrigation, fences and sheds. Water storage dams are also included but require specific consideration.

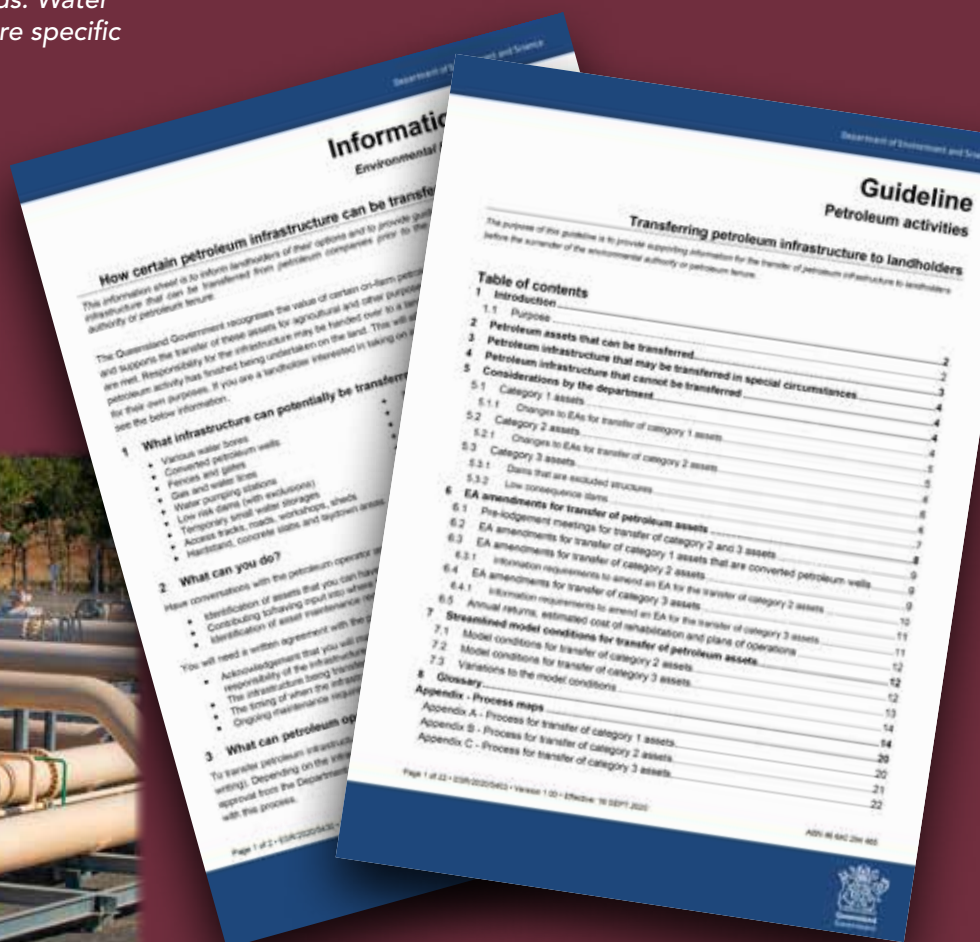
To transfer petroleum infrastructure, the petroleum operator and landholder will need to come to an agreement in writing. Depending on the infrastructure they wish to transfer, the operator may need an approval from the department to amend their licence. A new guideline has been produced to assist petroleum operators with this process.

GUIDELINE – TRANSFERRING PETROLEUM INFRASTRUCTURE TO LANDHOLDERS (ESR/2020/5403)

The [Guideline](#) outlines the petroleum infrastructure that can be transferred to landholders, considerations by DES for each category and whether changes to the EA are required.

FACT SHEET – TRANSFERRING PETROLEUM INFRASTRUCTURE TO LANDHOLDERS (ESR/2020/5430)

A [fact sheet](#) has been developed to provide landholders who are interested in taking on infrastructure from petroleum activities with further information about the transfer process.





Pipeline during construction...

TECHNICAL NOTE: MAJOR PIPELINES

High pressure pipelines are buried at least 900mm underground and in some cases deeper.

They are generally constructed in sections with each section usually completed in under 12 months.

Disturbed areas are reinstated to match the existing landforms which often includes re-contouring and installation of permanent erosion control structures.

Topsoil conserved during the construction process is spread over the area.

The area is then rehabilitated in accordance with government requirements and landholder considerations such as cultivation areas, grazing and grass seed combinations.

Signs are erected at regular intervals within line-of-sight of one another to indicate the presence of the buried pipeline.

Pipeline six months later.