16 PIPELINE REHABILITATION AND DECOMMISSIONING

This chapter, *Chapter 16*, describes the general methodology for decommissioning and rehabilitation of the Pipeline Component of the Queensland Curtis LNG (QCLNG) Project. This methodology applies to the Export Pipeline, Lateral Pipeline and Collection Header. Site-specific rehabilitation and decommissioning plans will be developed over the life of the Project.

16.1 REHABILITATION

A Right-of-Way (RoW) of approximately 40 m width will be created for construction of the pipelines that comprise the overall Pipeline Component. Following construction, the RoW will be partially reinstated to reduce the RoW to a width of 12 m that allows access for operational monitoring and maintenance activities. At the end of the Project life, once the Pipeline Component has been decommissioned, the RoW will be fully rehabilitated. Campsites and additional work areas required for construction of the Pipeline Component will be rehabilitated once the pipeline is operational.

Partial reinstatement has the following objectives:

- restoration of infrastructure and access for affected landholders
- removal of all construction waste
- burial or removal of trench spoils
- revegetation and habitat restoration.

As discussed in *Volume 2, Chapter 12*, the RoW will be partially reinstated immediately upon completion of construction. These works will be carried out in accordance with the Australian Pipeline Industry Associate (APIA) Code and the measures contained within the draft Environmental Management Plan (Draft EMP) provided in *Volume 10* of this Environmental Impact Statement (EIS).

Partial restoration of the Pipeline Component includes:

- re-profiling natural contours and drainage lines to their original profile with topsoil spread across the RoW to minimise erosion and promote vegetation regrowth
- respreading mulch or felled vegetation across the RoW for stability or fauna habitat
- installation of permanent erosion and sediment controls to shed runoff from the altered surface
- restoration of watercourses by installing, as required, jute matting on the banks, contour berms on the high bank, rock lining the creek base to minimise scour, and limiting the use of fertilisers
- direct seeding with a standard QGC mix approved by the landholder.

Regular monitoring will be carried out post the construction period to determine the level of rehabilitation of the Pipeline route and areas affected by construction. A report on the RoW reinstatement will be produced after 12 months, detailing groundcover establishment rates, erosion and sediment control effectiveness and photos from monitoring points. This monitoring will include checking for any weed outbreaks.

It is considered preferable from an environmental perspective to allow natural regeneration of vegetation. Seeding of native grasses or sterile crops may be carried out during initial reinstatement works to assist in stabilising the area and reducing the potential for weed outbreaks. Where the monitoring of vegetation regrowth indicates that the required rate as described in the Draft EMP in *Volume 10* of this EIS, is not being achieved proactive measures will be initiated.

Revegetation on private land will be carried out in consultation with the landholder. On state-owned or controlled lands any revegetation will be conducted in consultation with the relevant government department or agency (e.g. Department of Employment, Economic Development and Innovation) to ensure the measures proposed are acceptable and have a high likelihood of success.

It is expected that within two years the RoW and any camp sites and additional work areas will have been rehabilitated such that vegetation cover will match the surrounding area.

16.2 DECOMMISSIONING

In the event that any of the pipelines are no longer required they will be decommissioned in accordance with the legislative requirements of the day and the APIA Code current at that time. The most likely options are:

- mothballing
- abandonment.

Mothballing would involve depressurising the pipeline, capping it and filling it with an inert gas such as nitrogen and maintaining the cathodic protection system to prevent the pipe corroding.

If the Pipeline was to be completely abandoned it would be disconnected from all above ground structures, including the cathodic protection systems and purged of gas. All above ground facilities would be removed and disposed of and materials recycled where practicable. Based on the quality and characteristics of coal seam gas (CSG), it is not expected that fittings will be contaminated with any hazardous residues. It should be possible to dispose of fittings in the same manner as any steel scrap. The pipe would then be left to corrode in-situ.

The pipe may be filled will a stable material (e.g. concrete) at critical locations such as where it passes under a railway line or major highway to prevent

potential future subsidence. Removing the pipe from the ground is not an environmentally or commercially viable option.

The areas from which aboveground infrastructure has been removed (e.g. scraper station, mainline valve) would be reinstated to pre-existing land use using the techniques outlined in *Volume 2, Chapter 12*.

Following decommissioning of the Pipeline, the RoW will be fully rehabilitated. This involves spreading topsoil and revegetating the remaining RoW with species reflecting the surrounding land use. The exact method of rehabilitation and species composition will be based on site-specific investigations at the time of rehabilitation.