

The Narrabri Gas Project

Leewood Phase 2 – Water Treatment Facility

Managing the water produced during the extraction of natural gas from coal seams is a critical part of our work in the Narrabri area.

Santos has constructed an approved state-of-the-art water storage facility at the company's Leewood property on the Newell Highway, 24 kilometres south of Narrabri.

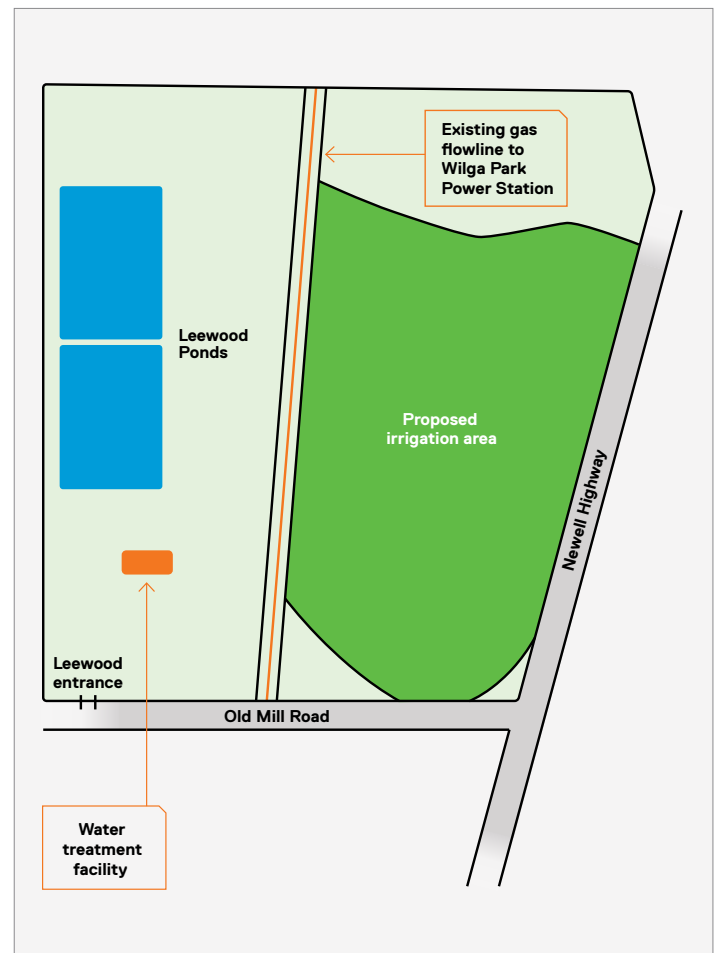
The two double-lined 300 megalitre storage ponds, constructed as part of the first phase of work at Leewood, now hold most of the water extracted during our exploration and appraisal program, as well as the legacy brine from previous operations.

Santos will now seek approval for phase 2 of work at Leewood. This will include construction of water and brine treatment facilities and associated infrastructure, such as pipelines and pumps, to treat produced water from Santos' exploration and appraisal program for approximately three to five years.

If approved we estimate between 65–70% of the water treated will be able to be reused.

Leewood Phase 2 will be assessed by the Government via a Review of Environmental Factors (REF), under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act). The REF document provides details of proposed plans, assesses any potential impacts and details how these impacts will be mitigated.

The facilities have been designed and located to minimise environmental, cultural heritage and community impacts. A traffic management plan will also be implemented to minimise the potential impact of additional truck movements during construction.



Proposed layout of the Leewood property

Narrabri Gas Project Overview

The Narrabri Gas Project could supply up to half of the natural gas used by NSW homes, small businesses, major industries and electricity generators every day

Operations will be focussed on land in and around the Pilliga, near Narrabri

The Project will create over 1,200 jobs during construction and bring substantial economic benefits to Narrabri and the region, while delivering a clean, reliable source of energy to NSW

Leewood Phase 2 Scope

Construction of Leewood Phase 2 will take around 12 months and will include the following infrastructure:

- + A water treatment plant, including a reverse osmosis plant and brine concentrator
- + Associated pipework to transfer water and brine around the facility
- + Treated water storage
- + Treated water irrigation system

Water

During the exploration and appraisal stage, Santos estimates an average of one megalitre of treated water will be generated per day.

It is planned that the treated water will be used to irrigate a section of the Leewood property.

Fodder crops will be planted and a combination of pivot and drip irrigation will be used. As Leewood is not currently used for agricultural purposes, the proposed irrigation area will improve the productivity of this land.

Small volumes of treated water will also be used for operational activities like construction and dust suppression.

In addition, provision will be made for potential use by local landholders.

All water will be thoroughly tested prior to use to ensure it is of a suitable quality for these activities and complies with NSW and Australian Guidelines.

Salt

The minerals dissolved in the water from coal seams are commonly referred to as 'salts' and will remain in a brine solution after the reverse osmosis process.

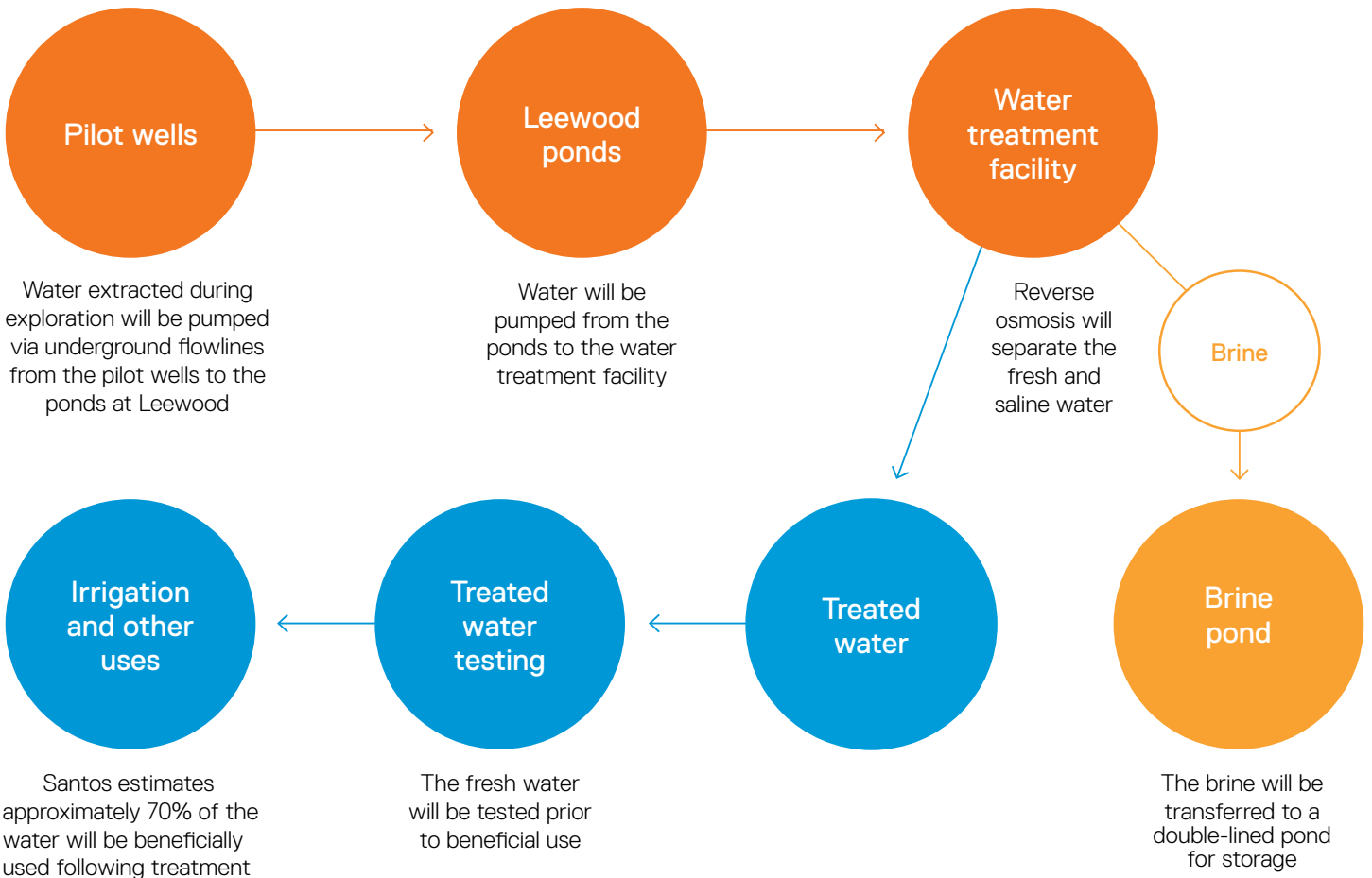
These salts will then pass through a brine concentrator for further treatment.

The remaining salts will be contained in a concentrated brine and stored in one of the newly constructed double lined ponds at Leewood during the exploration and appraisal stage.

Santos will work with industry experts to develop salt handling solutions which will be put in place when the Project moves into the development phase. Salts produced during the exploration and appraisal program will then be processed.

Santos will strictly adhere to all regulatory guidelines set out by the NSW Office of Coal Seam Gas (OCSG) and the Environmental Protection Agency (EPA) for dealing with salt as a by-product.

The process



About Santos

An Australian energy pioneer since 1954, Santos is one of Australia's largest domestic gas producers with more than 3,000 employees and a long history of safe, responsible operations.

For more information

[santos.com/nsw](https://www.santos.com/nsw)
Freecall: 1800 071 278
energy.nsw@santos.com
Twitter: @SantosLtd

Narrabri shopfront

125 Maitland Street
Narrabri
New South Wales 2390
Telephone: 02 6792 9035
Open Monday to Friday
from 9.00am to 5.00pm

Gunnedah shopfront

206 Conadilly Street
Gunnedah
New South Wales 2380
Telephone: 02 6741 5100
Open Monday to Friday
from 9.00am to 5.00pm