

Samphire Uranium Project - Environmental Management



WHO IS ALLIGATOR ENERGY?

Alligator Energy Ltd is an Australian exploration company listed on the Australian Stock Exchange (ASX). The company focuses on exploring uranium and other energy-related minerals, with active projects in South Australia and the Northern Territory.

These include the Samphire and Big Lake uranium projects in South Australia, and the Alligator Rivers project in the Northern Territory.



SAMPHIRE PROJECT OVERVIEW

The Samphire Uranium Project is located around 20 kilometers south of Whyalla in regional South Australia, near the Mullaquana Road area. The project includes two historical uranium deposits, Blackbush and Plumbush.

In 2025, Alligator Energy will conduct a short-term small-scale Field Recovery Trial (FRT). The goal of this trial is to test the use of the In-Situ Recovery (ISR) mining method at Samphire. ISR is a mining technique used in around 60% of the world's uranium production and has been safely employed at other mining operations.



SAMPHIRE URANIUM PROJECT ENVIRONMENTAL ASSESSMENT

Alligator Energy acknowledges and respects that the topic of uranium is a concerning one for some people. It is therefore important to provide open and transparent information about all aspects of the proposed Samphire Project and in particular about the environmental standards and compliance regime that exist.

Prior to the proposed Field Recovery Trial (FRT), Alligator is required to secure a Retention Lease (RL) from the Department of Energy and Mining, who will regulate the trial in conjunction with the Environment Protection Agency (EPA), Department of Environment and Water (DEW), and SafeWork SA.

If the Retention Lease application is approved, a Program for Environmental Protection and Rehabilitation or PEPR is prepared and submitted for approval. A PEPR is an operational document which describes how Alligator Energy proposes to operate the FRT in a safe and specific way. A PEPR approval is only given after a detailed, science-based assessment of its technical content by the Environment Protection Authority, the Department for Environment and Water, and the Department for Energy and Mining. Outside experts are also commonly used to provide further technical assessment.

Approval of the Retention Lease comes with a set of key environmental outcomes which must be achieved during and after the FRT.

To find out more about Alligator Energy's projects, you can reach us at:



Call our community line on
1800 954 140













Email:
feedback@alligatorenergy.com.au



To subscribe to digital updates visit:
alligatorenergy.com.au/projects/samphire

The PEPR outlines how these key environmental outcomes will be delivered, monitored and reported during the construction, operation and rehabilitation of the trial area and its immediate surrounds.

The proposed Environmental Outcomes currently under consideration for assessment are as follows:

ENVIRONMENT - KEY FOCUS AREA	FIELD RECOVERY TRIAL (FRT) - OUTCOME CRITERIA
 Soil	Soil impacted by the FRT is suitable for a return to pastoral use (post-trial closure).
 Groundwater (refer to Fact Sheet #3)	No compromise to the environmental value of the overlying or underlying aquifers (where present).
 Groundwater (refer to Fact Sheet #3)	No compromise to the environmental value of the target (FRT trial) aquifer outside the Retention Lease (RL).
 Surface water	No impact on surface water quality as a result of FRT operations.
 Flora	No permanent loss of native flora species abundance or richness unless approval is granted by relevant legislation.
 Flora	No introduction of new declared weed species, plant pathogens and/or increase in density or distribution of existing weed species and plant pathogens.
 Fauna	No native fauna injuries or deaths due to project activities that could have been reasonably prevented.
 Fauna	No introduction of new pest species or increase in abundance of existing pest species within the Retention Lease (RL) in comparison with adjoining pastoral land.
 Air Quality/ Radiation	No adverse impact to the public and the environment from radon release or the dispersal of radionuclide rich particulates.
 Traffic	Minimise traffic impacts on the local community during FRT construction and operations.

The results of the trial will be used to assess whether a potential full-scale mining operation could be achieved. If successful, AGE will likely undertake a Feasibility Study in 2024, which if progressed beyond that would require further State and Federal Government approvals, the securing of project financing amongst other key matters, before a full mine could be developed. Further resource extension, exploration activities and additional studies will feed into the proposed Feasibility Study during 2024.

To date, six external independent biodiversity reports have been completed over the broader Samphire Project area, which includes the location of the proposed FRT. These studies have confirmed that no nationally or state-listed endangered or rare plant species exist on the proposed Retention Lease area.



MANAGING THE ENVIRONMENT – KEY OUTCOMES TO DATE

Since commencing on-ground activities at the Samphire Project in July 2020, Alligator Energy has implemented a range of actions to manage and deliver positive environmental outcomes during exploration activities.

Some of the key approaches and initiatives implemented to date include a focus on protecting soil and vegetation, annual collection of fresh, local province, native seed for rehabilitation activities and use of drones for weed surveying among others.

We will continue to use new and innovative approaches that focus on reducing environmental impacts.

In December 2022, Alligator Energy was awarded a Commendation at the SA Premier’s Awards in Energy and Mining. The award recognised the Company’s work in improving land biodiversity values through innovative land rehabilitation methods during exploration which includes doubling of the shrub density on areas impacted by drilling, fencing off areas of large shrubs to maintain habitats for woodland bird species in the area and active weed and rabbit management.



COMMUNITY ENGAGEMENT

Alligator Energy is committed to building positive, collaborative relationships with stakeholders who may be impacted by or have an interest in our activities. We work closely with local communities to ensure that the land we use is left in a better state than when we began.

Our approach emphasizes environmental care, safety, and health, ensuring that our operations benefit the community while protecting the surrounding environment.

