

# Dubbo Zirconia Project (DZP) Community Newsletter

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## Environmental Impact Statement Progress

On the 4 September the Department of Planning and Environment announced that,

*"At this stage, the Department is satisfied that the benefits of the project would outweigh its impacts, and that it should be approved subject to strict conditions".*

As the next part of the planning process the Department has referred the Project to the Planning Assessment Commission (PAC) for review. Following the PAC review, the Department will finalise its assessment of the project taking into consideration the findings of the PAC review. It will then refer the development application for the project to the PAC for determination.

Alkane Resources hopes that it will receive a response (determination) before the end of the year.

## Front End Engineering Design (FEED) – Work packages advertised

In April, Alkane Resources appointed HATCH Engineering to project manage the Front End Engineering Design (FEED) of the DZP. The FEED is very important for the project as it progresses the detailed design for the plant. This will help us to understand the full capital cost and construction

schedule of the project to within 10% accuracy. This detailed information is required by project financiers prior to their investment and also helps us to demonstrate to regulators how each part of the plant will meet the requirements of the Environmental Impact Statement (EIS).

As part of this process, all work packages available for tender have been advertised on the ICN Gateway for Australian suppliers to submit Expressions of Interest (EOI). Hatch Engineering and Alkane Resources will review the EOIs and invite selected companies to tender. The work packages are expected to be listed on the ICN website from September to November this year.

## Transport Study Update

Alkane's transport and logistics consultants have been talking with Newcastle Port providers about the potential infrastructure required to transport bulk reagents for the project from bulk ship into portside storage with the ability to road or rail those products to Dubbo.

The bulk of the DZP chemicals required for processing are expected to come through Newcastle Port. The largest quantity reagent remains limestone and that is most likely to come from Geurie. Some resource definition drilling was completed in May 2014.

The option of re-opening the railway line from Dubbo to Toongi will be re-visited by Alkane once the project is fully operational. Only then will the requirement for various reagents be confirmed and the viability of rebuilding a class one track to Toongi fully analysed and costed.

### **Will uranium be produced at the Dubbo Zirconia Project (DZP)?**

NO. The DZP development application does not include any production of uranium. There will be no additional work programs beyond that already in place for the existing exploration licence and the Company has no intention of producing uranium.

Rare earths (which are crucial to renewable energy technologies, emissions minimisation, hybrid and electric vehicles and all high tech devices including phones, computers, tablets) are commonly found with trace amounts of uranium. The ore at the DZP contains approx 100ppm of uranium (which is classified as weakly radioactive), this uranium will be removed as part of the processing as a waste product and diluted to a concentration that is no longer considered radioactive.



Read and listen to the NSW Country Hour interview with Ian Chalmers for more information:  
<http://www.abc.net.au/news/2014-09-15/uranium-exploration-in-western-nsw/5743584?&section=news>

### **Why did Alkane Resources subsidiary company Australia Zirconia Ltd (AZL) submit an Expression of Interest for a uranium exploration licence?**

The objective of AZL's expression of interest is to protect the Company's interest in the DZP, and prevent third parties from impacting DZL's construction and operations of the Project. The area over which this expression of interest is registered is the same as the company's existing licence for Group 1 minerals at Toongi. The Toongi orebody is a large in-ground resource of the metals zirconium, hafnium, niobium, tantalum, yttrium and rare earth elements (REEs) and contains low levels of uranium (~100ppm) and thorium (~450ppm).

This expression of interest does not include any additional work beyond that already in place for the AZL's existing exploration licence.

The Department of Resources and Energy Uranium Exploration in NSW Fact Sheet states that *"Rocks considered economic for mining have concentrations of 300 to 1000ppm and up to 5000ppm"*.

### **Your questions**

We continue to update the community's FAQ on our [website](#). If you have any questions/concerns regarding the project we encourage you to speak with Mike Sutherland – General Manager NSW on 02 6882 2866 or email your questions to [msutherland@alkane.com.au](mailto:msutherland@alkane.com.au)

**Conservation - Pink-tailed Worm-lizard (PTWL)**

Locally, the PTWL is most abundant in areas which have not been pasture improved, retaining a moderate cover of native grasses associated with loosely embedded rocks on alkaline volcanic soils. Alkane has redesigned the open cut mine at Toongi to minimise impacts on this vulnerable species which lives under particular (size, shape and embeddedness) rocks in the Toongi district.

A population of the PTWL has been found on the eastern side of the outcropping ore body and this population will be relocated over the first ten years of operation. The PTWL lives in ant burrows and feeds on ants' eggs and young. Alkane has identified and mapped the optimal habitat requirements for the PTWL and included much of that habitat in the permanent biodiversity offset areas (1024 hectares) for the project.

An area has been identified as suited to habitat enhancement and plans are in place to create safe corridors for the PTWL leading away from the open cut to this alternative optimal habitat area. Artificial habitats have been used successfully with PTWL in the Australian Capital Territory (ACT) and has been demonstrated again at Toongi where a PTWL has been found under one of the concrete roof tiles which were set out by expert herpetologist Dr Arthur White as an experiment.



*Prime habitat for Pink-tailed Worm-lizard*



*Pink-tailed Worm-lizard*



*Pink-tailed Worm-lizard habitat - shallow embedded rock*

## DZP geotech investigations

Over the last few weeks some preliminary geotechnical ground work has begun at the DZP site at Toongi. This work will provide the design engineers with the information necessary to determine the type of foundations required for the mineral processing plant and residue storage facilities infrastructure.

Dubbo company, Macquarie Geotech have been engaged to complete geotechnical investigations in areas of the project site where infrastructure will most likely be constructed. Geotechnical studies involve diamond drilling with a light truck mounted rig, excavating 5m x 0.6m wide test pits, and auger sampling to hard rock. The soils and rocks are logged at each location, soils are tested for their properties and the sites rehabilitated.



*Geotech test pit*



*Light truck-mounted geotech diamond drill rig*

## Contact Us

Subscribe to our Community Newsletters and find out more information about Alkane Resources and the Dubbo Zirconia Project on our website:

[www.alkane.com.au](http://www.alkane.com.au)

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