



**Phoslock  
Environmental  
Technologies**



ASX Code: **PET**

Share Price: **A\$1.38**

52 Week High: **A\$1.54**

52 Week Low: **A\$0.32**

Issued Shares: **552.0m**

Market Cap: **A\$761m**

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PET BLOG on Water Issues:

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

## ASX ANNOUNCEMENT

Wednesday 31<sup>st</sup> July, 2019

### Business Progress

SIX MONTHS TO 30 JUNE 2019

#### Key Points:

- **\$18m Cash Receipts from Customers**
- **Record \$11m Net Cash from Operations**
- **Strong Balance sheet, debt free, \$18m cash on hand**
- **Very Large China Catchment & Lake project underway**
- **Chairman's Outlook**

## CHINA

### HIGHLAND LAKE IN SOUTHERN CHINA

As previously announced, PET Beijing has won a tender to exclusively supply *Phoslock*<sup>®</sup> to a highland lake Watershed Restoration Project in Yunnan Province southern China. The watershed area is some 370km<sup>2</sup>, including a large 34km<sup>2</sup> lake and many inflow rivers and canals. The initial aim of the project is to significantly reduce phosphates entering the lake from rivers, canals, and wetlands.

To update that announcement, substantial wetlands and interceptor channels are being constructed in the watershed area around the lake. Stage One of the project is for PET to supply and apply large quantities of *Phoslock*<sup>®</sup> to these inflow rivers, canals, and the wetlands themselves, with a number of areas to be supplied simultaneously. When the level of phosphorus entering the lake is significantly reduced, the focus will move to applications on the lake itself.

The scope of the project is very large, will take several years and will involve very substantial, but as yet unquantifiable quantities of *Phoslock*<sup>®</sup>.

The local government authority has a budget of rmb2.7 billion (A\$560m) for the complete watershed restoration project. We anticipate that this will be an important reference site for PET to illustrate to other Chinese governing authorities, as well as International authorities, what can be achieved with an integrated catchment and lake solution.

**Chairman Laurence Freedman AM** stated:

*“We are extremely pleased with the rapid and massive increase in demand for Phoslock® and the expanded scope of its use in this entire lake catchment area. The methodology adopted by the local government is unprecedented and is likely to be recognised in the future as the global benchmark for Best Practice in water pollution rectification.*

*The initial focus of the project will be to apply Phoslock® to the inflow rivers, canals, and wetlands; we are presently in advanced stages of planning, with parallel applications to multiple sites to commence shortly. This will involve a substantial mobilisation of equipment and personnel.*

*Accordingly, until we have concluded our analysis of logistics and timing, we will not, at this time, speculate on the total size or the monetary value of the project. However, given the scope of the surrounding works and the lake size we can state that this is a Very Large project. It will require large quantities of Phoslock® to be applied at many sites and will continue over a number of years.*

*While contract terms are commercial-in-confidence, we nevertheless will communicate to shareholders all that we are able to, as has always been our policy*

*Needless to say, I am delighted at the rapidly growing confidence that water authorities and governments in many countries are showing in Phoslock® the product, in Phoslock Environmental Technology (PET) the Company and in our proven ability to plan and successfully execute complex and diversified projects.*

*My congratulations to our directors, executives and staff”*

## **BEIJING WETLANDS**

The **Beijing Wetlands Project** is nearing completion, with final project deliverables due in the December quarter. 130,000 tons of zeolites and volcanic materials have been laid on top of a geo-textile cover covering the 120-hectare project site, creating a barrier between the soils and remediation materials. When the project is completed, the total value of work will be in excess of \$25m. Most of this was booked in 2018, of which some \$6m is being booked in 2019.



*Beijing Wetlands Project – Zeolite and volcanic materials deposited*

## **CHANGXING FACTORY**

The Changxing Factory is in the final stages of completing modifications to allow production of up to 42 tons of *Phoslock*<sup>®</sup> per day (15,300 tons pa); this should be completed in August. The major component is an enlargement of the wastewater system. Total cost of the factory modifications will be less than \$1m.

The Board is currently examining alternatives to significantly increase *Phoslock*<sup>®</sup> production to meet expected future demand.

Progress continues on a number of new products and projects. As and when appropriate, announcements will be made.

## **INTERNATIONAL BUSINESS**

### **USA**

PET has been advised that the *Phoslock*<sup>®</sup> **Wetland trials in Florida** achieved excellent results, which have been presented by the Water Authority to the Florida Governor's Algal Taskforce. The Florida Water Authority undertaking the trials has sought funding for large scale *Phoslock*<sup>®</sup> applications to its wetlands. A number of other water authorities in Florida and other states with similar problems are closely monitoring the current project and, if successful, will have applicability for wetlands across the US.



*Trial application to Florida Wetlands*

## CANADA

PET is currently in advanced stages on several large-scale projects in eastern **Canada**. The first of these is expected to proceed by early 2020 and involves the treatment of a drinking water reservoir. A number of similar large applications are expected to follow.

## SOUTH AMERICA

In **Brazil**, Lake Pampulha remediation is now in its fourth year. The total volume of *Phoslock*<sup>®</sup> applied is now in excess of 1,400 tonnes. HidroScience, our licensee, is also treating several potable water supply reservoirs in the country's north and is in the final stage of discussions to undertake several more projects with water authorities in some of Brazil's larger cities

## EUROPE

PET has made a number of applications to medium-sized **European** drinking water supply reservoirs. *Phoslock*<sup>®</sup> has been very effective in the rapid reduction of excess phosphates in the reservoirs.



*Application to Drinking Water Supply Reservoir – Belgium*

Our European team is currently working on several major projects planned for the second half of 2019 or early 2020 in the Netherlands, Belgium, Germany, the UK and Finland.

## OTHER

Substantial progress has been made on large projects in two countries sponsored by NGO's (Non-Government Organisations). These projects are now under active consideration for funding, with sizes ranging from \$6m to \$30m.

## FINANCIAL COMMENTARY

Receipts from Customers were \$10.0m in the first quarter and \$8.6m for the second quarter, making a total of \$18.6m for the first six months (2018 pcp \$4.3m). Operating costs (excluding raw material purchases) were \$2.2m for the first quarter and \$2.0m for the second quarter. Product manufacturing costs including raw material procurement were \$3.2m for the first six months. Variations from quarter to quarter result from project timing.

As at 30 June 2019, PET held some 2,500 tons of finished Phoslock® at various storage locations (value A\$7m), plus raw materials to manufacture another 3,500 tons of Phoslock ®.

Net Cash Flow from Operations for the first quarter was \$6.0m and \$4.7m for the second quarter, making a record \$10.7m inflow for the first six months of 2019 (2018 pcp \$2.6m)

Capital Expenditure for the first six months was nil but will increase in the September quarter due the Changxing factory production expansion.

PET received \$2.4m proceeds from the exercise of 2017 Employee Incentive Options during the period, with a further \$1.0m receivable in the second half of 2019.

Cash at Bank as at 30 June 2019 was \$18.0m.

**PET remains debt free.**

The Company anticipates continuing growth in customer strong receipts for the September 2019 quarter.

**Audited 30 June 2019 Accounts**

PET is expecting to release audited financial statements for the six months to 30 June, 2019 on or around Friday 23 August, 2019.

**Mr Laurence Freedman AM**  
Chairman

**Mr Robert Schuitema**  
Managing Director

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## PHOSLOCK ENVIRONMENTAL TECHNOLOGIES LIMITED (PET)

**Phoslock Environmental Technologies Limited is listed on the Australian Stock Exchange (ASX Code: PET). PET is included in the ASX All Ordinaries Index.**

Phoslock Environmental Technologies Limited (ASX: PET) is an international environmental company specialising in engineering solutions and water treatment products to remediate impaired lakes, rivers, canals and drinking water reservoirs.

PET has its headquarters in Sydney, Australia with offices in Brisbane, Beijing, Changxing, and Yuxi China; and Manchester, UK. PET is represented by licensees, distributors and agents in ten other countries including SePRO Corporation in the United States and HydroScience in Brazil. PET has a number of marketing and co-operation agreements in China with various environmental companies and government agencies.

With the massive water remediation market in China, in 2017 PET (Beijing) was formed. Our 100% owned subsidiary undertakes design, engineering, and implementation using remediation materials for rivers, canals, reservoirs and lakes along with construction of wetland areas. This is a significant broadening of the historical PET business and enables us to undertake a greater array of projects in China and elsewhere, supplying both services and materials.

PET owns the patent for *Phoslock*®, a unique water treatment product which permanently binds excess phosphorus in the water column and sediments. This in turn inhibits the growth of Harmful Algal Blooms (HAB) that lead to detrimental effects for both aquatic and human life.

Along with *Phoslock*®, PET also supplies:

- 1) Zeolites - a porous, natural material that can be applied to heavily polluted water to absorb nutrients such as nitrogen. As with phosphorus, nitrogen is another important food source for the growth of harmful algae; and
- 2) Bacteria. - Certain types of bacteria can break down contaminants and organic matter which pollute water and cause water borne diseases.

PET has a large multi-purpose factory in Changxing, Zhejiang province, China, 150km inland from Shanghai, which manufactures its patented technology, *Phoslock*®, along with nutrient binding materials (zeolites) and biological solutions (such as nutrient consuming bacteria).

The Changxing Factory has recently obtained three important certifications, from TUV Rhineland, a major European testing agency:

- ISO 900: Quality Control and Documentation of all procedures meets International Standards;
- ISO 14000: Environmental Management Standards Certification;
- OSHA 18000: Health and Safety Management Systems

For more information on the company, recent news, videos and blogs please visit our website: [www.PHOSLOCK.com.au](http://www.PHOSLOCK.com.au)