PHOSLOCK®
Phoslock Water Solutions Ltd.
ABN 88 099 555 290

ASX ANNOUNCEMENT

Monday 22nd September, 2014

Update on Phoslock Projects

Phoslock Water Solutions Limited (ASX: PHK) wishes to provide shareholders with an update on various projects completed over the last 18 months. Please find attached the *Autumn 2014 Phoslock Newsletter.*

ASX Code:	**PHK**
Share Price:	**A$0.04**
52 Week High:	**A$0.083**
52 Week Low:	**A$0.025**
Issued Shares:	**239.6m**
Market Cap:	**A$9.6m**

Address:
Suite 403
25 Lime Street
Sydney NSW 2000

Phone:+61 2 8014 7611

Email: enquiries@phoslock.com.au

www.phoslock.com.au
www.phoslock.eu
www.phoslock.com.br
www.phoslock.com.cn

For more information please contact:

Mr Robert Schuitema
Managing Director
Phone: + 61 (02) 8014 7611

Mr Laurence Freedman
Chairman
Phone: + 61 (02) 8999 1999

Phoslock Europe GmbH www.phoslock.eu
Phoslock Water Solutions Ltd. www.phoslock.com.au

Phoslock Newsletter

Autumn 2014

Phoslock - the best in situ solution for the remediation of eutrophied lakes **ASX Listed Company: PHK**

Success at the Commonwealth Games in Glasgow

Phoslock is celebrating after the winner of the Commonwealth Games triathlon praised the water quality in Glasgow's Strathclyde Loch, which was used for the swimming leg of the men's race on July 24. Phoslock was applied to the loch prior to the Games to improve water quality. Details on Page 2

Encouraging results from Swan Lake, Canada

Sixteen months after the application of Phoslock to Swan Lake near Toronto, Canada, signs of recovery are emerging. Results from the first year's monitoring have been summarized in an expert report commissioned by lake owners, the City of Markham. Post treatment phosphorus levels in the lake. were 60% lower in 2013 than the pre-treatment levels, with sediment phosphorus release being effectively prevented during the anoxic period of 2013. The main findings from this report, as well as the most recent results from the first half of 2014 have been summarized in an article on Page 3.

New results from Florida

On Page 6 , we provide an overview of the first twelve months of results from the application of Phoslock to Pine Lake., the northernmost lake in a chain of five eutrophic lakes in Southern Florida.

Phoslock in the spotlight

Phoslock will be showcased at two upcoming major international water related events. From ***Sep 21-26***, Phoslock Europe will be exhibiting within the Australian Pavillion at the ***International Water Association's World Water Congress and Exhibition*** in Lisbon, Portugal, while from ***Nov 12-14***, Phoslock Australia will attend the ***North American Lake Management Society's 34th Annual Symposium*** in Tampa, Florida. Two Phoslock related oral presentations will be given. Further details of the events are available at iwa2014.org and www.nalms.org.

the international water association

NALMS NORTH AMERICAN LAKE MANAGEMENT SOCIETY

Strathclyde Loch, Scotland

Accolades for water quality at Glasgow 2014

When athletes plunged into the water of Strathclyde Loch in July for the swimming leg of the Men's Triathlon, staff at Phoslock Europe were looking on with pride. Particularly pleasing were the comments of the event's winner, Alastair Brownlee of England, to reporters: "*I was thinking while I was swimming: this is really nice water - dead clean*." Earlier in the year, the loch had been treated with Phoslock to ensure that the water was safe for competitors, following issues with water quality in previous years.

During the build up to the event, the BBC's Matt Chilton told viewers: "*The water conditions have been monitored very carefully here in the loch. They have had problems in the past. In 2012, a Western District Open Water Swimming Championship was held here and more than 50 of the competitors picked up some sort of vomiting virus. Since then, there has been a problem with algae growth. So the organizers have been really keen to get it right and make sure the water poses no health or algae problems for the swimmers. I heard an interview with some of the New Zealanders who were saying how clear it was, how they could dive in, look down through their goggles and see the bottom of the lake"*

The use of Phoslock was part of a two year program instigated by the North Lanarkshire Council (NLC) and the Glasgow 2014 Games organisers aimed at improving water quality in the 80 ha loch.

The program was designed and implemented by UK aquatic consultancy, APEM, with the close collaboration of the Scottish Environment Protection Agency and Sniffer, a sustainable development

charity. It consisted of a two-step process, starting with the creation of a designated swimming area separated from the main loch using a series of engineered physical barriers. Once separated, the water was treated with Phoslock.

The loch lies within Strathclyde Park, one of Scotland's premier water sports centres and a proven world-class triathlon venue. Following the Commonwealth Games triathlon, APEM director Dr Adrian Williams said: "Monitoring showed that the water was in exceptionally good condition, more than meeting the standards required by the International Triathlon Union. For water quality scientists, that's as close as we'll ever come to winning our own gold medal."

(*Phoslock Europe wishes to thank APEM for supplying information used in this article*)

News from Canada

Swan Lake – 16 months later

As we reported in our summer 2013 newsletter, a 25.2 tonne application of Phoslock was completed on Swan Lake in Greater Toronto, Canada, in April 2013. Sixteen months have passed since Phoslock was applied and the first year's results have now been summarized in a report by Dr Gertrud Nürnberg of the aquatic consultancy, Freshwater Research (Nürnberg, G., 2013 Water Quality after the Phoslock treatment in Swan Lake, 20 Jan 2014). The report was commissioned by the lake owners, the City of Markham, who undertook the 2013 application. Swan Lake is a former gravel pit which had become a highly eutrophic lake with a history of cyanobacterial blooms. The application of Phoslock to the lake took place following a comprehensive study of the lake by the City and Freshwater Research in 2011-12. Historical water quality data and information collected in a monitoring program between August 2011 and March 2012 confirmed the severe degradation of water quality in the lake; all commonly used trophic state indicators classified Swan Lake as a hyper-eutrophic lake. In addition, the nutrient budget prepared for the lake as part of the study suggested that phosphorus (P) release from the sediments of the lake (the internal P load) was the greatest contributor to the lake's eutrophication. The study investigated several options to reduce this internal P load and recommended that P precipitation and sediment capping with Phoslock would be the most limnologically feasible and acceptable option to regulatory agencies because of its proven lack of toxicity (Nürnberg, 2014).

Table 1, extracted from Nürnberg, 2014, provides a summary of the trophic state changes that occurred in Swan Lake between 2011 (pre-Phoslock) and 2013 (post-Phoslock). Nürnberg concludes that there is ample evidence that the internal P loading from the sediment was diminished or even ceased after the Phoslock treatment in spring 2013. The report's conclusion is based on the following post-treatment observations:

1. Lake TP concentration was reduced by 60% in the mid and surface layer.
1. There was no or only little deep water P accumulation in the summer and autumn
2. There was no increase, rather a decrease of lake TP concentration throughout the summer and autumn (except on 13/9/13 after heavy rain events at the end of August which would have resulted in external P inputs into the lake)
3. The sediment fraction that is responsible for anoxic sediment release was extremely small after the treatment.

The general reduction in phosphorus indicates that the Phoslock treatment worked as intended by reducing internal P loading from the bottom sediments.

(continued overleaf)

Table 1: Trophic state of Swan Lake based on growing season averages

	Swan Lake		Eutrophic status limits	Hypertrophic status limits
	2011	2013		
Secchi Disk Transparency (m)	0.47	0.43	1-2.1	<1
Total phosphorus (mg/L)	0.247	0.099	0.031-0.100	>0.100
Total nitrogen (mg/L)	2.71	1.6	0.651-1.200	>1.200
Chlorophyll a (µg/L)	32	52	9.1-25	>25

Swan Lake application (continued from Page 3)

Despite this reduction in phosphorus, however, Secchi transparency did not increase and chlorophyll a did not decrease and the lake remained borderline hyper-eutrophic. Nürnberg attributes this to the fact that there was probably still enough P to support algae (high chlorophyll a) and nutrients were most likely still in overabundance. As a result, other characteristics such as light may have still been limiting algal growth.

Data for the first half of 2014 suggest that the lake has continued to recover during the first six months of the year. For example, monitoring undertaken by the City of Markham shows that average TP levels in the lake increased slightly to 0.13 mg/L during winter under the ice cover, but then decreased significantly in April and May (water column averages of 0.075 and 0.065 mg/L respectively). This "second year" reduction is consistent with results observed in other lakes treated with Phoslock where phosphorus bound in algal cells during an application has only been removed from the total phosphorus pool once algae have completed their life cycle. When Phoslock is applied during the spring or summer, this removal may not take place until winter or spring the following year as the algae die, sink to the sediment and release phosphate as they decompose.

Secchi depth readings from 2014 also suggest the lake is continuing to recover. Figure 1 shows the readings from 2014 in comparison to 2011 and 2013 averages. Although the high reading from June 2014 may be indicative of a clear water state in the lake, Secchi depth transparency has, on average, increased since the start of the year.

(continues overleaf)

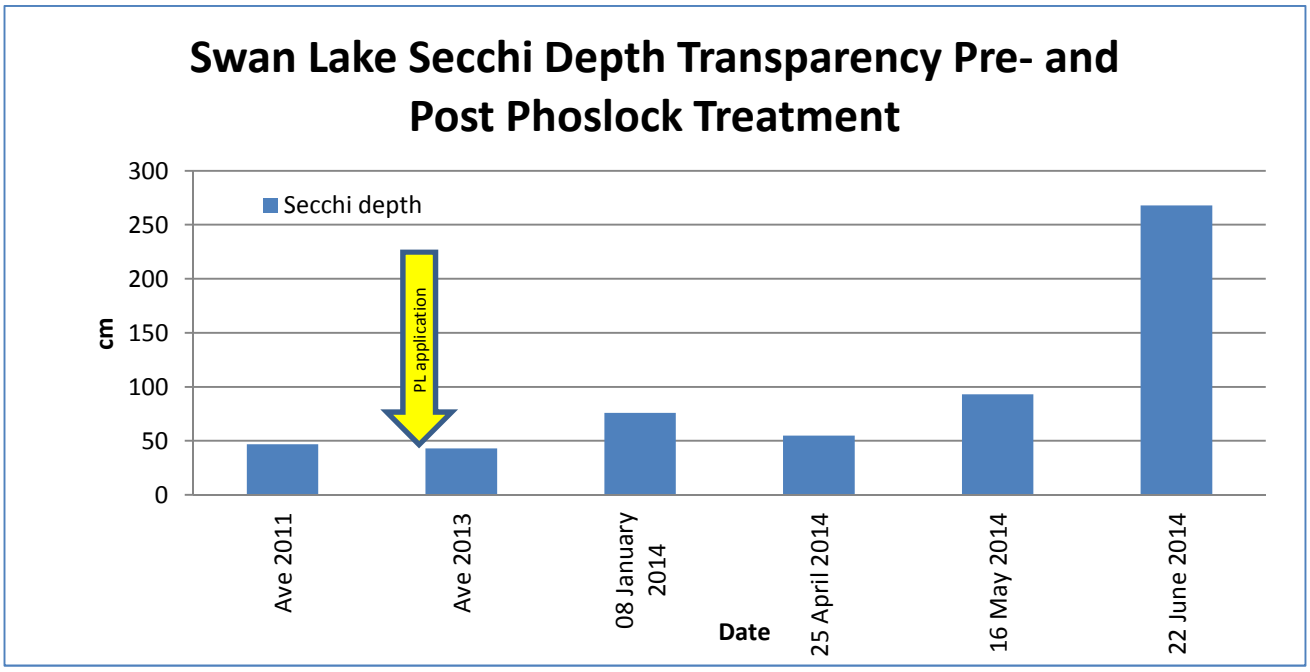

Figure 1: Swan Lake Secchi Depth Transparency

Swan Lake & Feuersee, Germany

Swan Lake application (continued from Page 4)

Monitoring will continue for the remainder of the 2014 season and further decisions relating to ongoing management options will be made once the results are known. One issue that has emerged from the intensive study made of the lake in recent years is that the numbers of water fowl present on the lake, particularly in the late summer and autumn, are considerably higher than originally estimated. As a result, measures aimed at pro-actively managing the number of Canada Geese on the lake are recommended, along with more regular monitoring of the outlets from the adjacent storm water management ponds.

(Source: The authors of this article wish to thank the City of Markham and Dr Gertrud Nürnberg for their cooperation in the preparation of this article)

Bentophos applied to the Feuersee in Stuttgart, Germany

The Feuersee is a small and shallow lake in the centre of Stuttgart in Southern Germany. It is U-shaped and surrounds the city's famous Johannis Church on three sides. The lake has been used for different purposes over the years, including as a water supply for the City Fire Brigade and as a fishing lake, however nowadays the lake is best known for its gastromonic delights due to the large number of cafes and restaurants which surround it.

In recent years, the lake has experienced excessive plant and algal growth due to high nutrient loadings in the sediment and the long residence time of its water. In March 2014, the City of Stuttgart commissioned Bentophos GmbH, the Phoslock licensee for Germany, to apply 9 tonnes of Bentophos (German trade name for Phoslock) to the lake in an effort to eliminate the release of phosphorus from the sediments and thereby reduce plant and algal growth. Pre- and post-treatment monitoring is being undertaken by the aquatic consultancy, Boos (Büro fur Gewässerkunde und Landschaftsökologie). Further details about the application are available on the Bentophos website: www.bentophos.de

News from Florida, USA

Restoration of Pine Lake, Florida

Pine Lake is the northernmost lake in a chain of five lakes in Palm Beach County, Florida that are exhibiting symptoms of phosphorus enrichment. These water bodies serve as drinking water sources, surface water storage and fish and wildlife habitat. Several lakes, including the 20 ha Pine Lake, do not meet existing state and federal water quality criteria and are designated as "impaired" by the Florida Department of Environmental Protection (FDEP) and the US Environmental Protection Agency (USEPA). As the federal Clean Water Act requires local governments to take timely and appropriate actions to address such impairments, Palm Beach County and the FDEP teamed to fund and implement an in-situ phosphorus mitigation program in Pine Lake using Phoslock. The application was undertaken over three days in January 2013 by Phoslock's US licensee, SePRO, and local application company, Clear Waters, Inc., based on a phosphorus mitigation plan developed by scientists from SePRO and AMEC. Although nutrient inputs from the inlet channel feeding Pine Lake and surface runoff contribute to the annual load of phosphorus in the lake, historic water and sediment analysis suggest that reflux of phosphorus from bottom sediments was a significant contributor to the total phosphorus load in Pine Lake and the aim of the application was to reduce the availability of this phosphorus source to the lake ecosystem. In order to measure the success of the application and comply with the requirements of the FDEP permit that was obtained for the project, water samples were taken monthly from three in-lake sample stations one year before the applications and twelve months post-treatment in both Pine Lake and an untreated adjacent lake, Clarke Lake.

Routine water quality monitoring conducted by the Palm Beach County's Department of Environmental Resource Management (DERM) showed that annual TP concentrations in the lake averaged approximately 60 µg/L between 2000 and 2011. Although West Palm Beach experienced 2.6 inches above average rainfall during 2013, average TP concentrations in the lake declined by 30% over the pre-treatment average levels and by 25% compared to the DERM data from 2001-2011. In contrast, TP change in the untreated Clarke Lake was not significantly different. Soluble reactive phosphorus remained low before and after the treatment in Pine Lake, while in Clarke Lake, they increased 25% during the post-treatment

sampling period. Chlorophyll a concentrations remained unchanged pre vs post-treatment (25 µg/L), however increased in Clark Lake by 26% during the post-treatment monitoring period. No significant changes were measured in annual average pH, alkalinity, colour, nitrogen (Total, ammonia, nitrates and nitrites), transparency, turbidity and TSS. Post treatment monitoring of the benthic organisms showed that there had been no significant composition or diversity alteration to the lake's benthic macro-invertebrate community. A report summarizing further details of the project is in final review and the results of treatment will be presented by AMEC scientists at the upcoming North American Lake Management Society's Annual Conference in Tampa, Florida from November 12-14.

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Phoslock Water Solutions Ltd is listed on the Australian Stock Exchange under the ticker 'PHK".