

Round Pond Woluwe Park, Brussels, Belgium.

Application dates: 28-29 February 2017

Summary

Aim: Decrease in blue green algae concentrations through phosphorus reduction

Description: Lake in an urban park

Size (ha):	1.7
Max. depth (m):	2
Average depth (m):	1
Conductivity ($\mu\text{S}/\text{cm}$):	650
Dosage (tonnes):	6.3

The Lake



Round Pond is a 1.7 ha shallow lake located in Saint Pieters Woluwe, east of the city centre of Brussels in the Woluwe River Valley. It was created in 1907 following the world exposition of 1897 at the nearby Jubel Park. The park was created by the French landscape architect Emile Lainé who introduced contours to the previously flat landscape and created several lakes in the process. Round Pond was selected for Phoslock treatment due to the occurrence of occasional nuisance cyanobacterial blooms.

Figure 1: Aerial photo of Round Pond in Woluwe Park (image from Google Earth, 2017).

The Treatment

The treatment was an initiative of the Brussels Ministry of Environment and was aimed at achieving an improvement of the water quality of the lake and creating conditions conducive for the return of macrophytes to the lake. 6.3 tonnes of Phoslock was applied on the 28th and the 29th of February to bind the potentially bio-available phosphorus

fraction in the top 5 cm of the sediment and the total phosphorus content of the water column. Phoslock was mixed with in-situ water and sprayed over the surface of all accessible areas of the lake from a pontoon based mixing unit. Certain shoreline areas were inaccessible due to submerged poles preventing access by the pontoon.



Figure 2: Photos from the application of Phoslock to Woluwe Lake.

Conclusion

No algal blooms have been observed in the lake in the year since the treatment in March 2017. The return of macrophytes were observed near the southern shoreline of the lake some months after the treatment was undertaken.

Recolonisation of the lake by macrophytes

was one of the primary aims of the treatment. The lake will continue to be monitored in coming months and years to determine the sustainability of the treatment.

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Additional information can be found on our website or can be provided on request.