

# Boggart Hole Park Lake Restoration

**Location:** Manchester, UK

**Client:** Manchester City Council

**Objective:** Water quality improvement

Project in collaboration with:



**MANCHESTER  
CITY COUNCIL**



## Challenge

Boggart Hole Clough lake was lined with concrete and brick, lacked planting and opportunities for wildlife. The water quality was lacking due to the absence of circulation and aquatic life. In 2014, poor water quality and anaerobic conditions led to a serious outbreak of avian botulism, resulting in many casualties.



## RESULTS:

- Secchi Depth  $< 0.5$  increased to  $> 1.0$  m
- COD reduced from  $> 40$  to  $< 20$
- BOD reduced from 10 to 1
- Invertebrate Study Score Community Conservation Index increased from 1.3 to  $> 12$





*Design drawing north side*

### **Solution**

Biomatrix Water was commissioned to design and install a floating ecosystem to revitalise and transform the stagnant, ecologically low in quality water body. Several floating islands were implemented on the north and south side as well as the edges of the lake. The islands incorporated hanging sub-surface biofilter columns to create an artificial reef-like habitat for microorganisms, fish and other aquatic life. Also a fountain aerator was installed in the central area of the floating spiralled garden. Breaking up the large open water surface had the additional benefit of being less attractive to Canadian Geese and thereby attracting more native ducks and coots.



Even small trees can be planted on the island



Varied planting provides an interesting image with colours shifting throughout the season



Birds have chosen one of the floating islands as their nesting spot



*Before*



*After*



*Before*



*After*



*Taking water samples*



*Volunteers help to drag the island in place*



*Local children enjoying the water's edge*



*The islands break the open water surface to create a more varied habitat*



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