

Woodlands School – pond restoration

Basildon, Essex

Skanska, Essex Local Education Partnership, Woodlands School

BIG Biodiversity Challenge Award Category: *Project of the Year Award (up to 5 ha)*

Project overview

An existing pond with low ecological value has been restored, allowing nature to naturally thrive. Less than one year later, frogspawn, frogs and fish now inhabit the pond and the school has incorporated the new habitat into their lessons, giving students the opportunity to learn outdoors and connect with nature.

What were the biodiversity conditions on site, prior to the enhancement?

Prior to the project commencing, the pond was very low in ecological value and function and had fallen into disrepair. There was little to no water in the pond due to torn lining, and there was minimal planting and connectivity with the nearby habitat. The existing wildflower grassland wasn't connected to the pond habitat, and was becoming degraded from heavy footfall from school students since the area was not effectively cordoned off and signage was lacking. Prior to the enhancements taking place, the school was not incorporating nature and wildlife on site into school lessons.

What were the reasons behind this project?

The team undertook the project since it was a shame to see the status the current pond was in. As part of Skanska's Community Investment initiatives, employees are able to volunteer their working time towards actions which support local communities in which we work. The team decided the pond would be an excellent project and sought the opportunity to engage with the client, the school and subcontractors to donate materials/time to complete the works. The time spent working on the pond had the joint benefit of enhancing the site's biodiversity and providing an opportunity to build relationships between all parties.



New pond 7 months after restoration works



Old pond with torn liner prior to restoration works

What were the biodiversity measures taken?

The enhancement works focused around restoring the pond into a new habitat. The existing, torn pond liner was removed, the bottom of the pond cleared and a new liner, donated by Skanska was installed. The pond has variation in levels and depths ensuring it creates a range of different microhabitats within it.

It was agreed that the existing wildflower area would be allowed and encouraged to be extended to reach the pond to enhance the connectivity of habitats on site. The area is now incorporated into the ongoing maintenance schedules for the site; the cutting regime of the wildflower area is once per year to allow annuals and perennials to thrive.

A new rope perimeter fence was installed to ensure safety for students around the pond and was extended to include the wildflower area. This prevents students walking through the area giving the extended wildflower area a good chance to establish. The posts were made from used timber, donated by the subcontractor. Additional signage has been added to ensure that site users are aware that it is a designated wildlife area.

A bug hotel was created from a variety of used items and natural materials including palettes, timber, ceramics, bamboo and grasses. The Skanska team have also started growing vegetables on site so that they can use them in their lunch!

The enhancements aim to work towards key elements of the Essex BAP, including:

- The appropriate management and recognition of the (aspirational) Priority Habitats outlined by the Biodiversity 2020 Strategy that exist on site.
- The appropriate management and recognition the (aspirational) Priority Species and Habitats outlined in the 2006 Natural Environment and Rural Communities Act.
- Actively engaging with the estate user, stakeholders, local communities, and local wildlife charities and organizations in open events, educational experiences, and partnered events.



New bug hotel and signage to highlight the wildlife area to site users



Following the installation of the new pond lining and fencing

Further information

Since the pond has been installed, the team have been keeping track of the gradual improvements in wildlife in the localised area. We are pleased to note that wildlife is naturally starting to inhabit the restored area, demonstrating that ecological value and functionality is also being restored. In March, frogspawn was noted in the pond and the frogs now frequent the area. Fish have naturalised into the pond, believed to have been brought in by the birds that have been witnessed visiting. Pond skaters are present on the pond and at least 2 species of spiders have been noted to be using the bug hotel to lay eggs which have since hatched.

Linda Glover, Head of Science at Woodlands School has confirmed how the pond is now used within the curriculum: *“The new school pond is now used to introduce students to ecology and pond ecosystems. We take students to visit the pond and do supervised pond dipping to sample organisms living in the pond and examine them under the microscope. It covers lessons on:*

- *food chains and webs*
- *unicellular organisms*
- *water pollution*
- *indicator organisms*
- *pond ecosystems*
- *sampling techniques.”*

John Pedretti, General Manager, Essex Local Education Partnership, said: *“This was a great way to bring people who work on the contract together. It creates an environment where we can have fun, learn more about each other and strengthen our relationships to help us deliver a high performance. We also did a good job too, well done to the team.”*



Wildflower grassland improved connectivity to the pond habitat



Frogspawn present in the new pond in March 2019, 7 months after restoration took place

Project Team

Skanska have the Facilities Management contract for Woodlands School, providing hard and soft FM services. The voluntary team for the biodiversity enhancement comprised:

- Skanska General & Operations Managers, engineers, care takers, and office staff
- Grounds subcontractor Senior management and operatives
- Essex LEP General Manager (the client)
- Essex County Council representative

What was the motivation for carrying out the enhancement?

Chris Stokes, Operations Manager: *“Walking by the empty pond every day was disheartening. I have a pond at home and I enjoy seeing nature thriving around it. We wanted to do similar at work and it’s excellent to witness the improvements in wildlife that are happening now.”*

Bill Smythe, General Manager: *“This was led by the Skanska team, who arranged for our Grounds contractors and client to take part. We worked hard to transform the pond so pupils can use the space to study. Outdoor space is important for them when they have been in classrooms most of the day.”*



This year’s vegetable plot, made from old pallets



Juvenile spiders recently hatched from the bug hotel