



## GLASGOW FLOATING ECOSYSTEM WETLANDS



To support our Next Step, Leca LWA was specified by Biomatrix as part of the media substrate for the Biomatrix Floating Ecosystems at the Science Centre in Glasgow. Leca LWA possessed the suitable natural properties which included the ability to counter frost; be used as a natural media for plant growth; is safe for

use in drinking water reservoirs and has a natural buoyancy property due to its natural porous properties.

Glasgow Science Centre is a cutting-edge visitor attraction bringing the wonder of science to hundreds of thousands of visitors each year. They recognise the importance of increasing biodiversity in their surroundings and helping to educate their visitors on technologies that help bring water to life.

The hard-edged riverbank of the Canting Basin, part of the old Prince's Dock, on the River Clyde is a challenging environment with limited habitat for wildlife.

## FACTS

---

**Material:** Leca® LWA (10-20 mm)

**Delivery Method:** Bulk Bag Delivery (2.2m<sup>3</sup>)

**Interesting Fact:** All the plants are taking their nutrients from the water, so there is no introduction of any nutrients with the development.

**Developer:** [BioMatrix Water](#)

The Floating Ecosystems have been planted with over 2000 native estuarine plants. They will provide habitat for birds such as moorhens, ducks, and cormorants to nest, for fish to gain shelter and find food, and may even attract visitors such as seals, otters, and porpoises, which can be found in the Clyde. There is an observation area with free-to-use binoculars and interpretation boards about the Floating Ecosystem just outside the science centre.

Galen Fulford, Managing Director at BioMatrix Water provides quote and comment “Biomatrix is a ecosystem technology company and we build the substrates to allow Wetland ecosystems to become established in areas where they wouldn't otherwise be able to thrive.

The islands are made of recycled HDPE which is basically water pipes that are recycled when they're upgrading pipelines - those are held together with stainless steel connecting brackets and then the whole system is then infilled with a planting substrate that biomimics the natural materials that you would find in a riparian shoreline like the Estuary and edges of the Clyde say 700 years ago or before any of this Edge was built.



Galen Fulford, Managing Director at BioMatrix Water explains “Biomatrix is a ecosystem technology company and we build the substrates to allow Wetland ecosystems to become established in areas where they wouldn't otherwise be able to thrive.

The islands are made of recycled HDPE, which is basically water pipes that are recycled when they're upgrading pipelines - those are held together with stainless steel connecting brackets and then the whole system is then infilled with a planting substrate that biomimics the natural materials that you would find in a riparian shoreline like the Estuary and edges of the Clyde say 700 years ago or before any of this Edge was built."

Galen Fulford, Managing Director at BioMatrix Water continues, "Every ecosystem that we create is a unique shape and a unique design to harmonize with the surrounding architecture and geometry of the place and to provide different types of ecosystem features.

For example, we've got tree planters on here and we also have a nice open pool in the Middle, where things like Greaves can swim underneath and pop up in the middle and the kind of shape and the series of little archipelago of islands is quite unique for this location the benefits of islands like this.

They really bring in all the ecosystem services that you would have with a natural Wetland habitat and more because you have all the roots going down in the water. All the plants are taking their nutrients from the water, so we're not introducing any nutrients at all. The materials that we're putting on are very inert and so we'll be taking out nitrogen and phosphorus."

"So, some of the things that are coming down the Clyde will be taken up by the plants as well more broadly what we're looking at is potentially the implementation of these floating Wetlands across the Clyde if that's possible and also looking at the wider benefits to Glasgow as a whole.

I have good data in that regard others are really focused on net biodiversity gain looking at the species here in Canting Basin. There's no Wetland habitat here at all so as soon as we put in plants and we're putting in thousands of plants right now that will have a huge increase in the in the local biodiversity of this particular area.

I think it's really important that we all work together and the community and the science center. The Science Center actually belongs to the community so we should be part of the Regeneration of the Clyde, everybody has to work together to help the planet.

I really enjoy people engaging with the environment and with Wildlife as well and it's a really nice opportunity to bring that to this area"

This project is supported by the Scottish Government's Nature Restoration Fund, which is facilitated by the Scottish Marine Environmental Enhancement Fund (SMEEF) and managed by NatureScot.