

Gleneagles, Scotland

Flooded 16th green, Queens Course



The 16th hole on the Queens Course was experiencing standing water issues - the fairway running towards the green runs through a valley and was causing flooding issues on the green. We were invited to design and install a ECO-90™ system, with minimal disruption, onto the Queens 16th Green, which would complement the existing lateral drainage and permanently solve the flooding issue.

The ECO-90™ system was a recreational installation, that did not require a Storm Water trench. It featured the diamond array formation, based on 12-lines of ECO-90s™ across the green. The hole remained open for play during the installation and the green was back in full use for players directly after the 5 day install.

A black rectangular graphic with gold confetti at the top. It features the text "£500,000" in large gold font, followed by "PROFESSIONAL INDEMNITY COVER" in white. Below this, in smaller white text, it says: "Where we supply and install an ECO-90™ engineered drainage solution we offer an insured warranty, covered by up to £500,000 Professional Indemnity cover. Higher cover is available as required." At the bottom, it says: "In some instances, such as natural turf where we offer our own ECO-90™ drainage design solution and install, we offer a two year defect warranty. This means we will return to site to remedy any problems at our expense."

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The ECO-90™

Transforming Drainage Design & Scope

The ECO-90™ is an internationally patented product with unique characteristics that solve a multitude of drainage problems. We launched it in the UK under licence in 2012, since when we have completed over 300 successful installations, from commercial and residential new builds to car parks and cemeteries. We also have our 'Hall of Fame' installs.

Made from high density polyethylene (HDPE), standard drainage extrusion, the unique ECO-90™ design uses a multiple open chamber system that creates lateral (horizontal) water transfer to soil stratas to a depth of over 12 metres (go to www.groundwaterdynamics.co.uk for full information).

Our ethos is that the time has come for a new drainage solution that:

- does not move large amounts of storm water from A to B in conventional horizontal pipes creating problems "down the line", including the flooding of water treatment facilities that then discharge into critical marine, river and stream ecosystems
- improves the carbon footprint by removing external energy requirements to deal with storm water, with no need for pumps moving water or the energy requirements of treatment works
- stimulates plant growth, creating ECO-90's™ CARBON NEGATIVE standard
- does not take storm water directly off the surface into deep borehole systems creating possible pathways for contaminants.

Instead, we have introduced a drainage system that takes ground water, indirectly, laterally through the ground into an installation of multiple ECO-90s™, **changing the drainage characteristics of soils which previously were unable to accommodate positive infiltration rates.** That's the game changer.

"The ECO-90™ design requires no maintenance, has no mechanical moving parts and needs no external energy requirement to function. It uniquely harnesses soil based gravitational pressure, porosity and waters enthusiasm to keep on moving."

"The unrivalled result is that a ECO-90™ installation uses the entire volume of soil to a depth of 12m below the ground for water drainage, creating a massive volume of earth to deal with storm water. For new build sites this results in less area for drainage, more for building and higher GDVs."



Edgbaston CC



Gleneagles



Royal Ascot



Silverstone