

Eclipse Soils Improver sustains and saves

At Eclipse Soils we take it as given that Perth is the greatest place on earth to live and raise a family.

But just because we boast great beaches, glorious long summers and world class facilities, doesn't mean that things can't be improved – and that particularly applies to our soils.

Perth is built on a geomorphic unit known as the Swan Coastal Plain. In layman terms, the metropolitan area basically sits on a series of parallel sand dunes that stretch from the coast to the base of the Darling Scarp.

The first of these is known as the Safety Bay Dunes consisting of the typical white sands found along the beaches and at places like Rockingham.

Next come the Spearwood Dunes - high, gently undulating dunes with a core of limestone and yellow sand at the surface in varying depths. Suburbs such as Subiaco, South Perth and Settlers Hill are built largely on Spearwood Dunes.

The next inland and oldest dunes are the Bassendean Dunes, formed from deep, high, silica sands, and include areas such as Bassendean and Ellenbrook.

All of these sand types are low in organic matter, nutritionally poor and as any keen gardener will tell you, require substantial fertilizer addition to sustain plant growth.

But pouring fertilizer on sandy soils is a certain recipe for producing algae growth in our precious rivers and streams as the fertilizer is easily carried through the porous soils into water courses. It's literally pouring money down a giant drain.

In the context of a drying climate, and an expanding metropolitan area, the very large amount of good quality water used to irrigate gardens and open space, as compared to the need for adequate supplies of good quality water for human consumption is creating increasing tension for water resource managers and developers.

With all these pressures in mind, soil scientists at Eclipse Soils have set about producing products that can enhance native sandy soils to drastically reduce the amount of water needed



Eclipse water retentive soils form the extensive park lands of The Kilns Estate, Carramar. to produce healthy plant growth.

We know that loams and sandy loams allow water to infiltrate, but also hold water in the soil profile much better than straight sand.

At Eclipse Soils a great deal of research has gone into

identifying an optimum blend of clays, silts and some organic matter which when added to Perth sands transforms the soil texture into a sandy loam. We do this using materials recovered at the Eclipse Soils Abercrombie Resource Recovery site in Kwinana, meaning our soil products are made from verified clean, recycled materials.

It's important to understand that Eclipse Soil Improver changes the structure of the local sands so that they don't degrade over time and need more additive. This is a massive advance on the approach taken in the 1970's and to this day, in which the absence of organic matter in our local sands is seen as the only problem regarding water retention and peat and biosolids are added to the sand as an amendment.

By definition, these amendments will degrade over time as they are only organic. It is for this reason that, for example, backyard vegetable gardens need annual dressings of compost, as the compost being organic, degrades and is consumed by soil fauna and is lost from the soil profile.

Eclipse Soils testing has been evaluated by the Smart Approved WaterMark organisation which has awarded its accreditation on the basis that our products create a statistically reliable reduction of 50% in irrigation requirements compared to Bassendean Sand to maintain healthy plant growth.

"Eclipse Soils products and services reduce the volumetric requirement for irrigation water to establish new estates as well as existing Public Open Space and other landscaped areas within the urban environment," said Eclipse general manager Sean Bennett.

"This is a company dedicated to sustainability through innovation."

For more technical talk on Perth's soils go to: <https://eclipsesoils.com.au/technical-papers/>