



Nature Based solutions and Sustainable Urban Drainage in housing developments

Case studies Fingal County Council

22nd February 2023

Hans Visser, Biodiversity Officer

Changing Environment



SUDS & Development



- **Attenuating water locally and reducing the impacts of extreme floods**
- **Improving water quality**
 1. **Protecting, reconnecting and restoring Rivers & Floodplains**
 2. **Protecting, enhancing or constructing Wetlands (SUDS)**

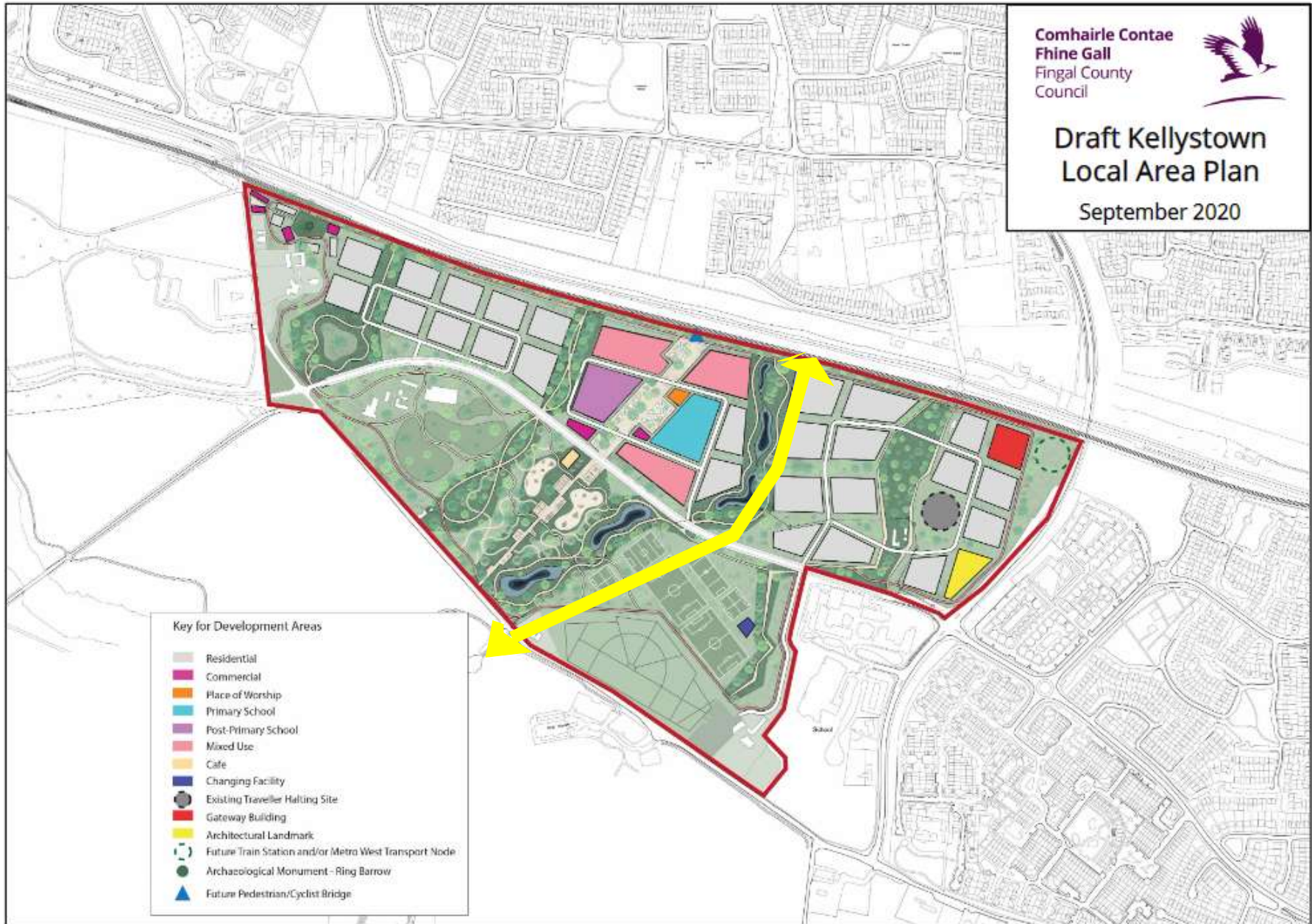
SUDS & Green Infrastructure





Draft Kellystown Local Area Plan

September 2020



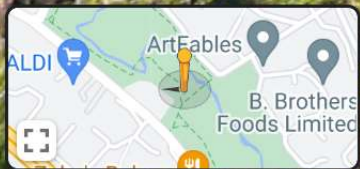
Tolka Valley



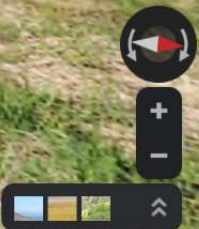
← Castlecurragh Park

 Matthew Taaffe

Apr 2018



Google



Racecourse Park Baldoyle



4 pillars of SUDS



	4 PILLARS OF SuDS			
	Quantity	Quality	Biodiversity	Amenity
Suds Measures				
Source Control				
Swales	Green	Green	Green	Green
Tree Pits	Green	Green	Green	Green
Rainwater Butts	Orange	Orange	Red	Red
Rainwater harvesting	Orange	Orange	Red	Red
Soakaways	Green	Green	Red	Red
Infiltration trenches	Green	Green	Red	Red
Permeable pavement (Grasscrete, Block paving, Porous Asphalt etc.)	Green	Green	Orange	Orange
Green Roofs	Orange	Green	Green	Green
Filter strips	Orange	Green	Green	Green
Bio-retention systems/Raingardens	Green	Green	Green	Green
Blue Roofs	Green	Green	Green	Green
Filter Drain	Green	Green	Green	Green
Site Control				
Detention Basins	Green	Green	Green	Green
Retention Basins	Green	Green	Green	Green
Regional Control				
Ponds	Green	Green	Green	Green
Wetlands	Green	Green	Green	Green
Other	Green	Green	Green	Green
Petrol/Oil interceptor	Orange	Green	Red	Red
Attenuation tank – only as a last resort where other measures are not feasible	Green	Green	Red	Red
Oversized pipes– only as a last resort where other measures are not feasible	Green	Green	Red	Red

Green = good performance in that area,

Orange = moderate,

Red = poor performance in that area

Swales – Weavers wood



SUDS Wetland creation



SUDS Baldoyle



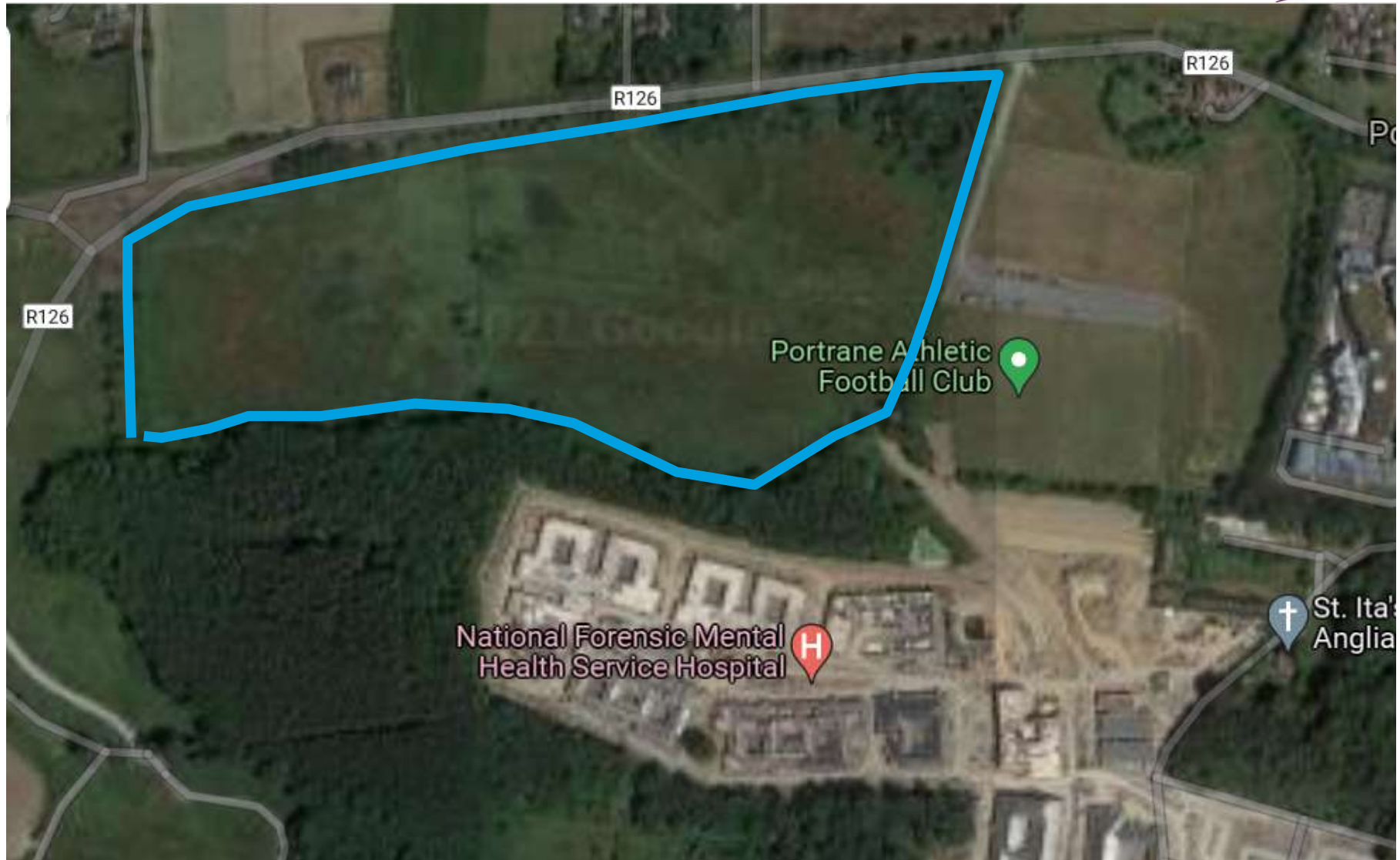
SUDS Swords



SUDS Commercial Dev



Wetland enhancement



Wetland Enhancement



Wetland for road drainage



SUDS v natural Wetland Creation



Challenges



Opportunities

