

# 3<sup>rd</sup> UK National Observers Group (NOG) Meeting

Friday, 21 March 2014

Presentation by  
Ian Titherington, Cardiff County  
Council





# GREENER GRANGETOWN WERDDACH

## A Partnership Approach to Sustainable Drainage

Ian Titherington

Senior Engineer (Drainage)

Cardiff Council

# A True Partnership Approach



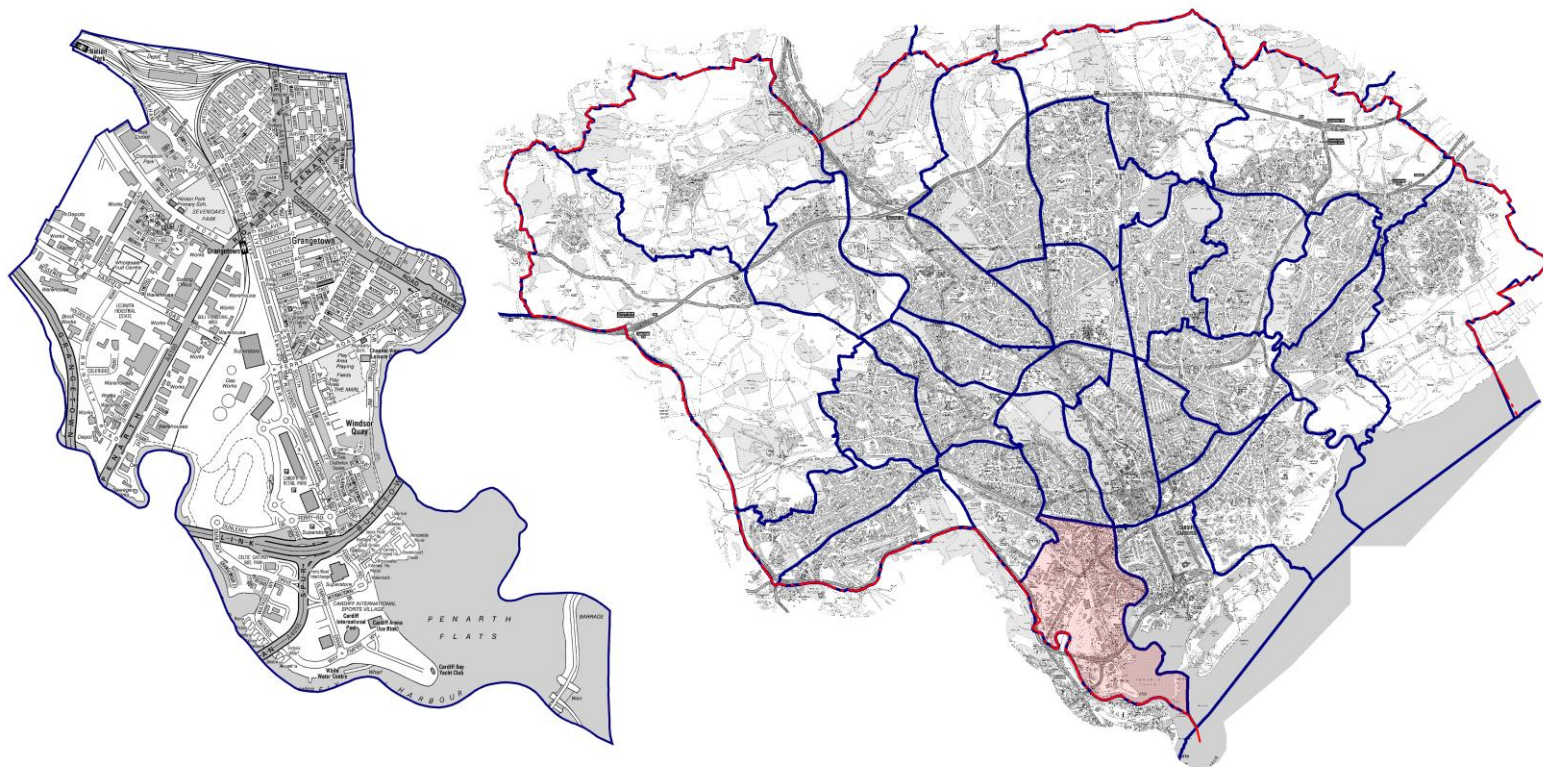
**Cyfoeth  
Naturiol  
Cymru  
Natural  
Resources  
Wales**



**Dŵr Cymru  
Welsh Water**

- **A signed memorandum of agreement**
- **A project board with equal representation**
- **An equally funded design/consultation process**

# Grangetown in Context



Grangetown is a thriving urban community of almost 20,000 residents, with a population density of almost twice the average of the city, and with one of the most culturally diverse communities of any Council ward in Wales.

# Project Aims



- **Sustainable Water Management**
- **Removal of Surface Water from Sewer Network**
- **Demonstrate Wider Benefits**
- **Toolkit for Future Projects**
- **To assess the success of partnership working**



# Challenges

- Quantification of benefits
- Direct funding is from 3 different organisations with different drivers and responsibilities.
- Stakeholder engagement -Most culturally diverse council ward in Wales, with 92% of children attending the local school with English as their second language.
- Combined Sewers





## Greener Grangetown



# Greener Grangetown





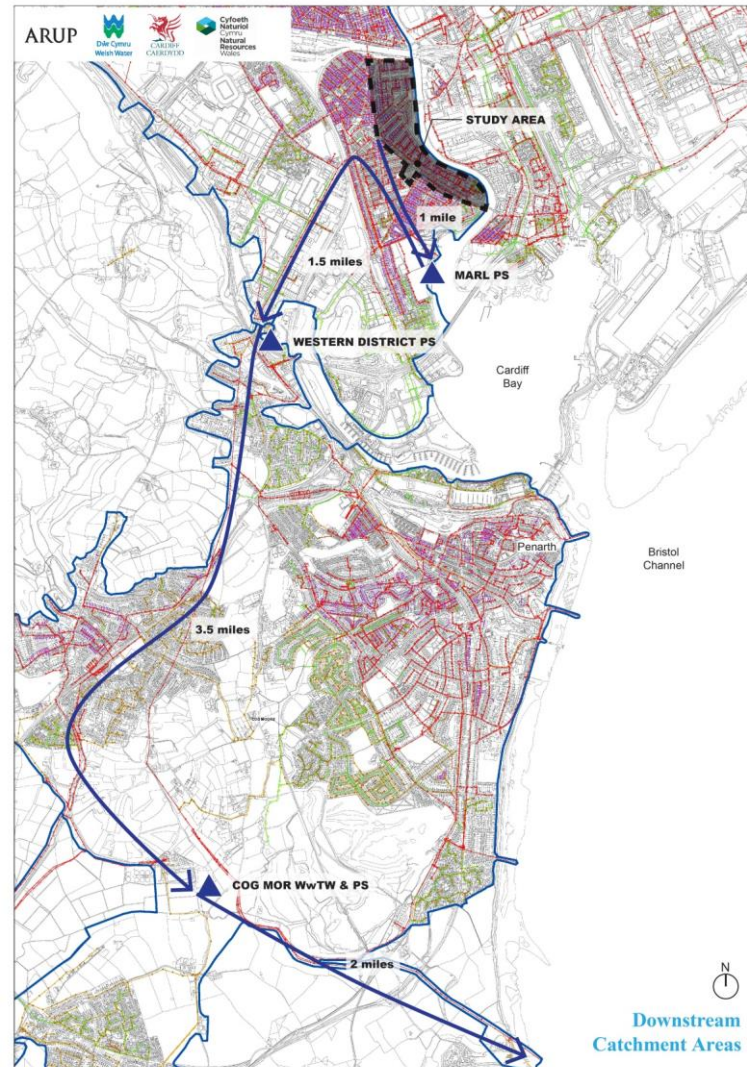
## Greener Grangetown





## Greener Grangetown

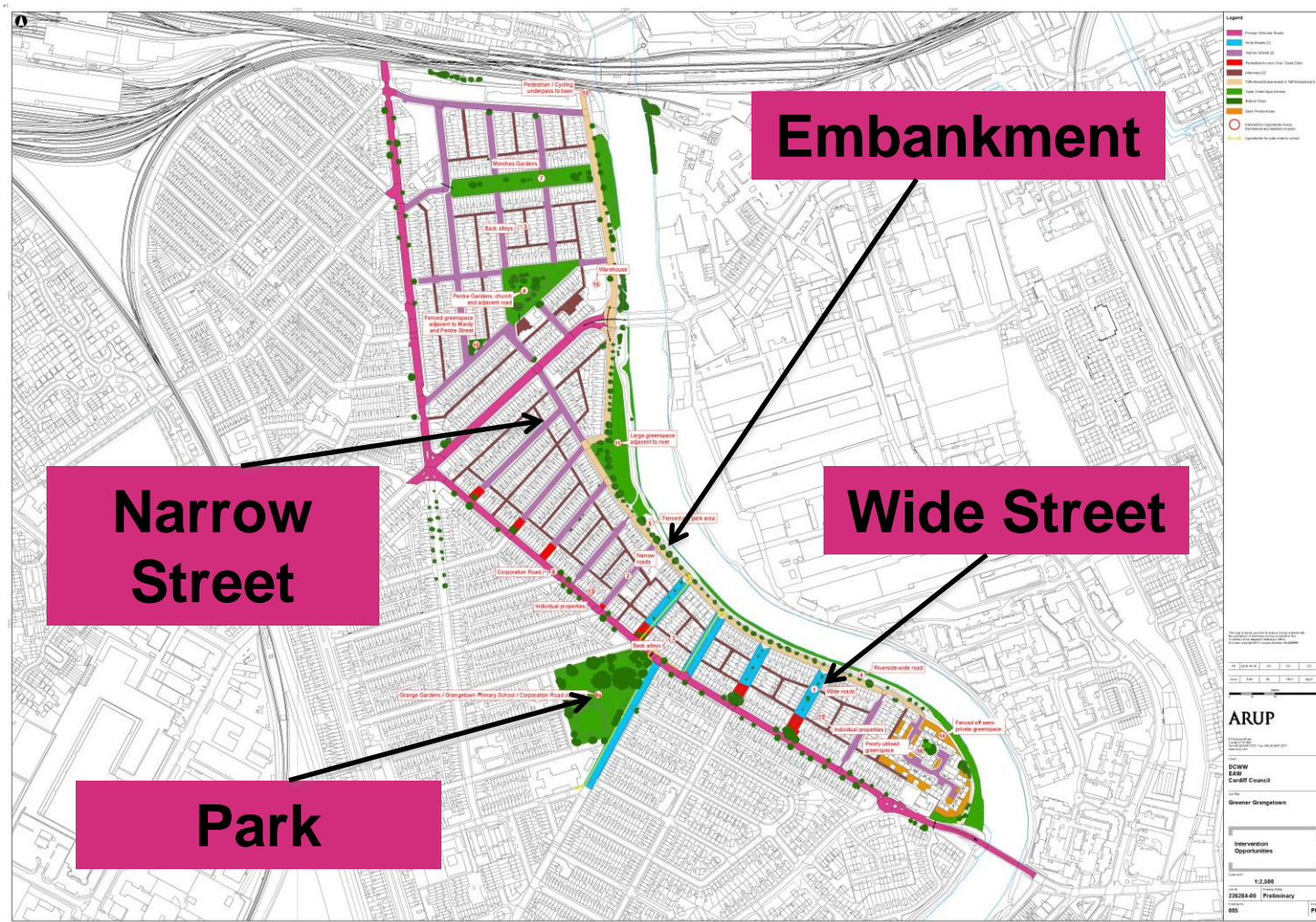
# Unsustainable Drainage



Greener Grangetown

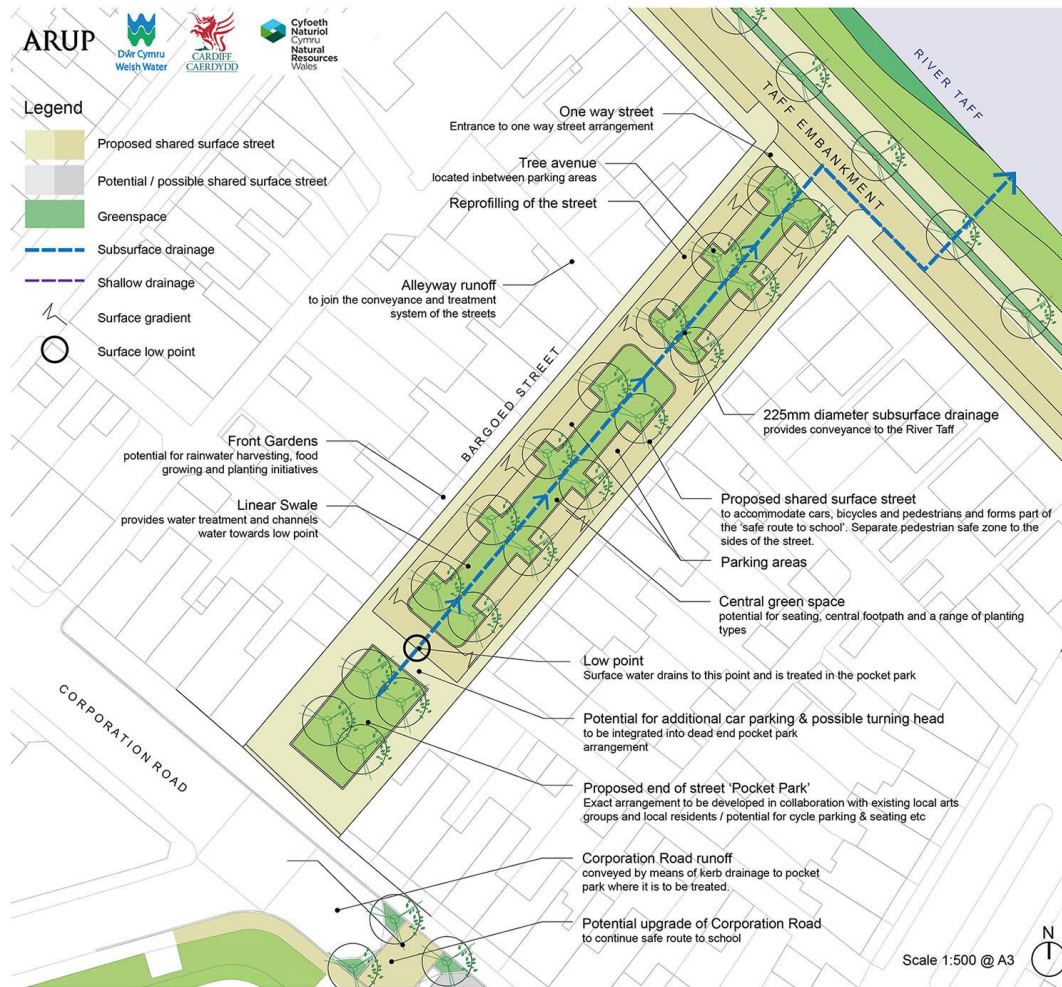


# Design





# The interventions



Preliminary design subject to further development



Central greenspace  
Vastra Hamnen, Malmö, Sweden



Central greenspace  
Vastra Hamnen, Malmö, Sweden



Rain Garden  
Vastra Hamnen, Malmö, Sweden

## Wide Street - Option 1

Central Greenspace | Subsurface Drainage

# Before and after



Greener Grangetown



# Before and after



Greener Grangetown

# Before and after



Greener Grangetown



# Before and after

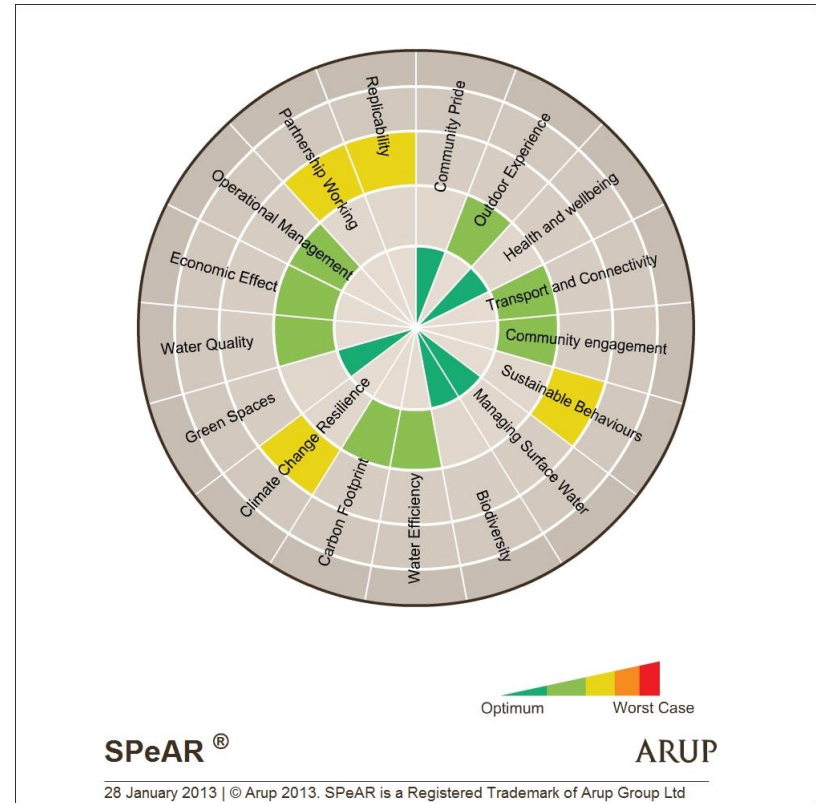
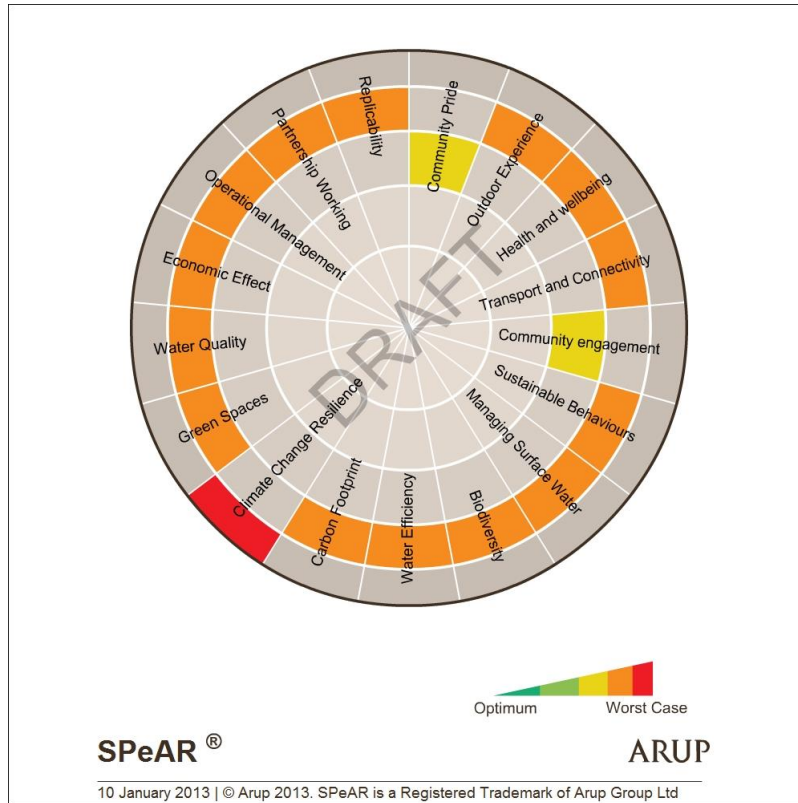


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# Wider benefits

Assessment Criteria	National Flood and coastal erosion risk management strategy	A sustainable Wales – better choices for a better future	One Wales: One planet & Cardiff: One Planet City	DCWW strategic direction statement	Draft Cardiff surface water management plan	Sustainable Development (Wales) Bill	Environment (Wales) Bill	Heritage (Wales) Bill	Planning (Wales) Bill	Climate Change Strategy for Wales	Active Travel (Wales) Bill	Housing Bill	Regeneration Bill	Wales infrastructure investment plan
Community Pride			+			+		+	+			+	+	
Outdoor Experience							+	+			+			
Health and wellbeing		+	+	+		+		+		+	+			
Transport and Connectivity										+	+			+
Community engagement		+	+		+	+	+	+		+	+		+	+
Sustainable Behaviours	+				+	+	+	+	+	+	+	+		+
Managing Surface Water	+			+	+				+			+		+
Biodiversity			+	+			+	+		+				
Water Efficiency				+	+				+			+		
Carbon Footprint				+			+			+		+		
Climate Change Resilience	+		+	+	+	+	+			+				+
Green Spaces	+				+	+		+		+			+	+
Water Quality				+						+				
Economic Effect	+		+	+		+	+	+	+	+	+	+	+	+
Operational Management	+	+		+						+				
Partnership Working		+	+		+	+	+	+	+	+	+	+	+	+

# The benefits



# Headline Benefits

- **Removing 155,000m<sup>2</sup> of impermeable area**
- **Releasing capacity for between 6,000 and 12,000 new homes**
- **Realising annual monetarised benefits in the order of £250,000**
- **Payback period of 12 years**
- **16,500m<sup>2</sup> increase in green space**
- **Approximately 400 additional trees**

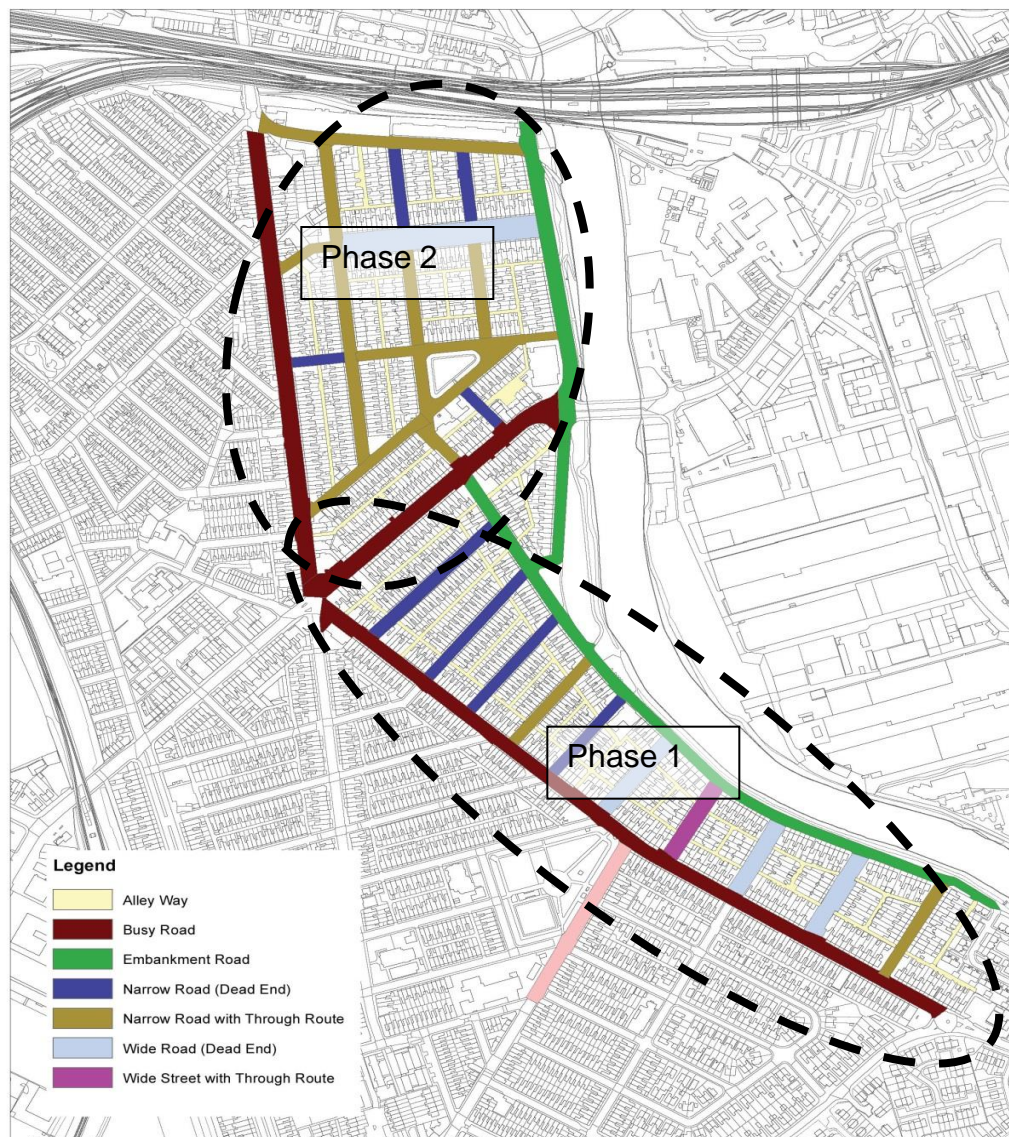


# What next?

- **Funding**
- **Design**
- **Stakeholder engagement/consultation**
- **Monitoring/WISDOM project**
- **Dec 2014 start on site**
- **Future phases in Cardiff & beyond**



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GRANGETOWN  
WERDDACH**



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## The Future

To make Greener Grangetown an exemplar scheme for water sensitive sustainable drainage, in Cardiff, Wales & beyond

To encourage greater partnerships within the public, private & not-for-profit sector – combining both expertise & funding

To change people's perception of water, ***as an asset***





## Greener Grangetown