
Neath Port Talbot
Castell-nedd Port Talbot
County Borough Council Cyngor Bwrdeistref Sirol
Green Infrastructure Project
Neath Port Talbot, Swansea and
Bridgend

Neath Port Talbot
Castell-nedd Port Talbot
County Borough Council Cyngor Bwrdeistref Sirol

Overview:

- Project Background
- Mapping
- Design and Delivery
- What did we achieve?
- What was challenging?
- What next?

Project Background:

PSB Well-being Plans being developed

- NPT – GI as cross-cutting theme
- Swansea – Working with Nature
- Bridgend – delivering the Nature Recover Plan

- How to deliver these requirements?

- WG GI Capital Grant released

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Cyngor Abertawe Swansea Council

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

Project Idea:

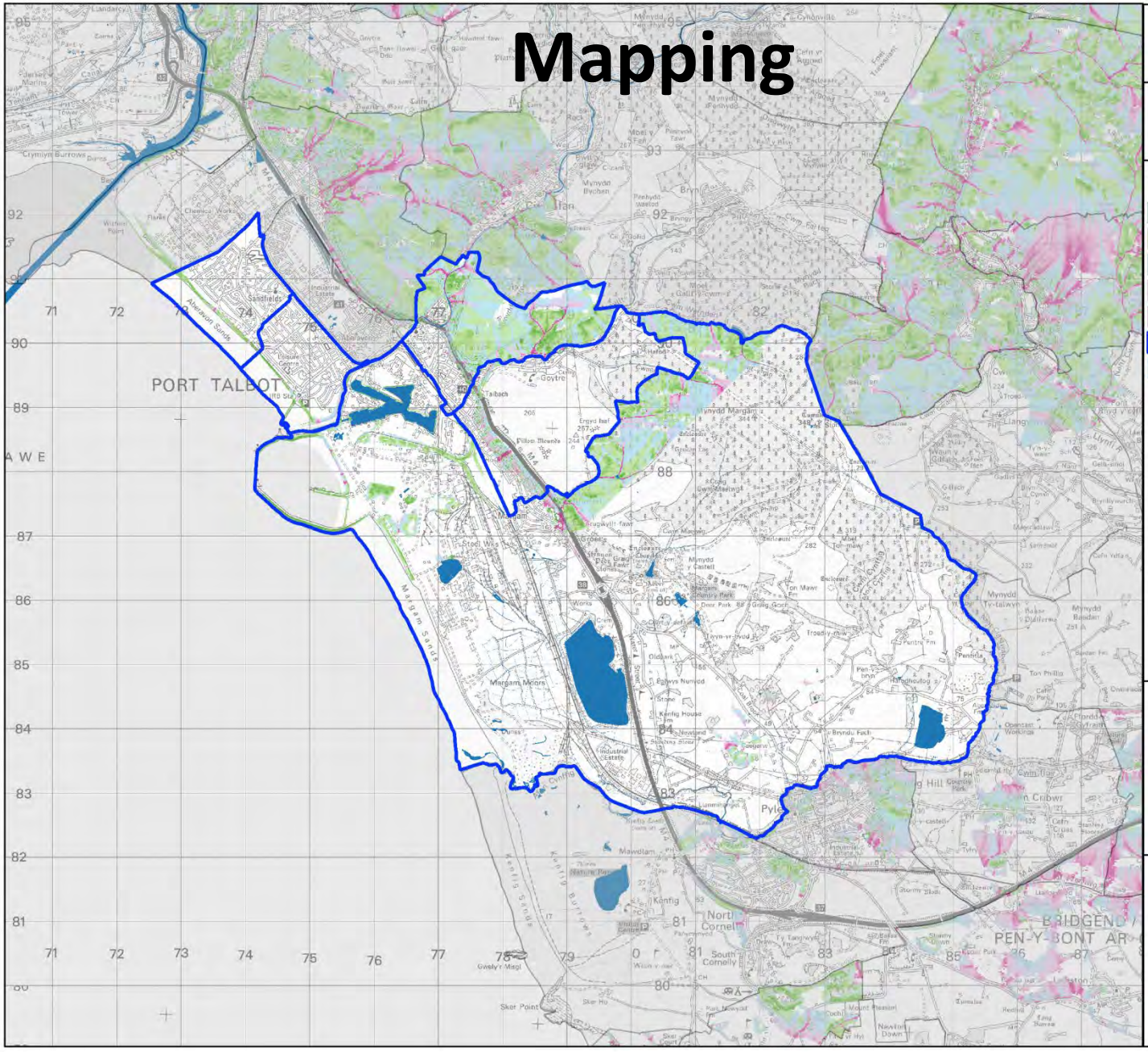
- Partnership project
- Aims
- Funders

Cyngor Bwrdeistref Sirol Pen-y-bont ar Ogwr BRIDGEND County Borough Council

Cyfoeth Naturiol Cymru Natural Resources Wales

Ariennir yn Rhannol gan Lywodraeth Cymru
Part Funded by Welsh Government

Mapping



GI Opportunity Mapping and Multiscale Delivery

Area at Risk from Overland Flow (Pluvial Flooding) after Rainfall

Key:

N

- Low Flow
- High Flow
- Neath, Port Talbot Wards
- Neath Port Talbot Waterways

What the map shows:
The map highlights the flowpaths that are likely to form after severe rainfall. High risk areas are shown in purple, lowest risk in green, areas at medium risk in light blue. In the purple areas, risk of flooding from overland flow is high, particularly if the area consists primarily of paved ground. The flowpaths can also feed large quantities of water into flat or hollow sites, and thereby facilitate flooding from standing water at these sites. The map considers only the effect of rainfall, and does not show risk of coastal or fluvial flooding.

How the map has been created:
The map uses a modelled digital surface model, e.g. a height map considering features on the ground such as houses, as input for running SciMap (Durham University, 2016). The network index expresses how likely one parcel of land is to pass on water to any adjacent parcel of land, and thereby gives an approximation of primary flow paths. All areas with slopes over 3° were considered to likely contain flowing water.

0 2 4 km

Prepared by Environment Systems Ltd

Version: 1
May 2018

Based on National Resources Wales GIS for Area Statements Data

Environment Systems evidence and insight

SENCE

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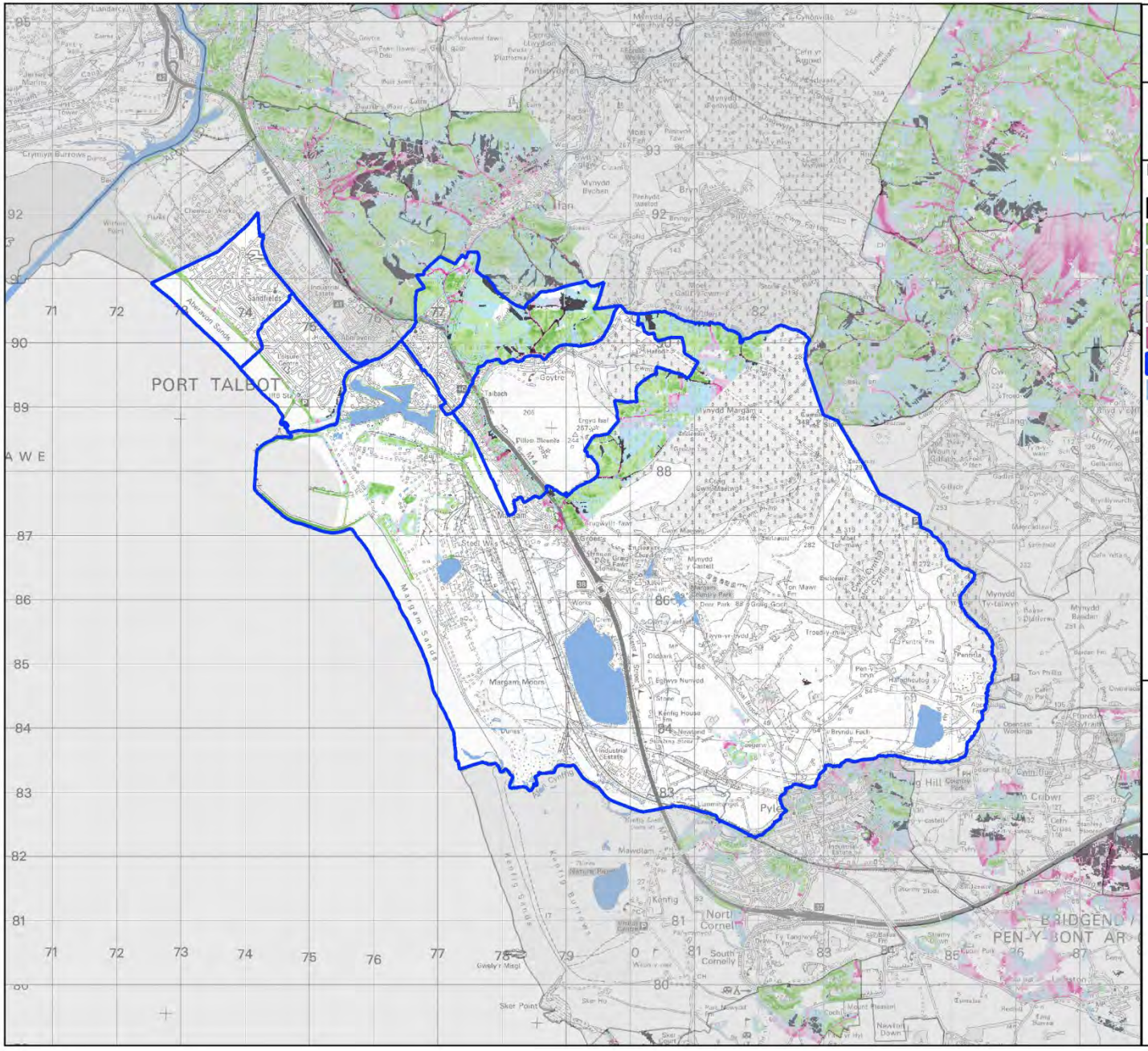

GI Opportunity Mapping and Multiscale Delivery

Opportunity for Woodland to Reduce Flowing Water (Pluvial Flooding)

Key:

N

- Opportunity for Woodland
- Low Flow
- High Flow
- Neath, Port Talbot Wards
- Neath Port Talbot Waterways

What the map shows:
The map highlights the flowpaths that are likely to form after severe rainfall. High risk areas are shown in purple, lowest risk in green, areas at medium risk in light blue. In the purple areas, risk of flooding from overland flow is high, particularly if the area consists primarily of paved ground. The grey overlie shows where flowpaths could be interrupted through tree planting, thereby reducing the amount of water the flowpath can carry into downhill flat or hollow areas.

How the map has been created:
The map uses a modelled digital surface model, e.g. a height map considering features on the ground such as houses, as input for running SciMap (Durham University, 2016). The network index expresses how likely one parcel of land is to pass on water to any adjacent parcel of land, and thereby gives an approximation of primary flow paths. All areas with slopes over 3° were considered to likely contain flowing water. Opportunities for tree planting were taken from the Woodland for Carbon map from the project GIS for Area Statements.

0 2 4 km

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May 2018

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Environment Systems evidence and insight

SENCE

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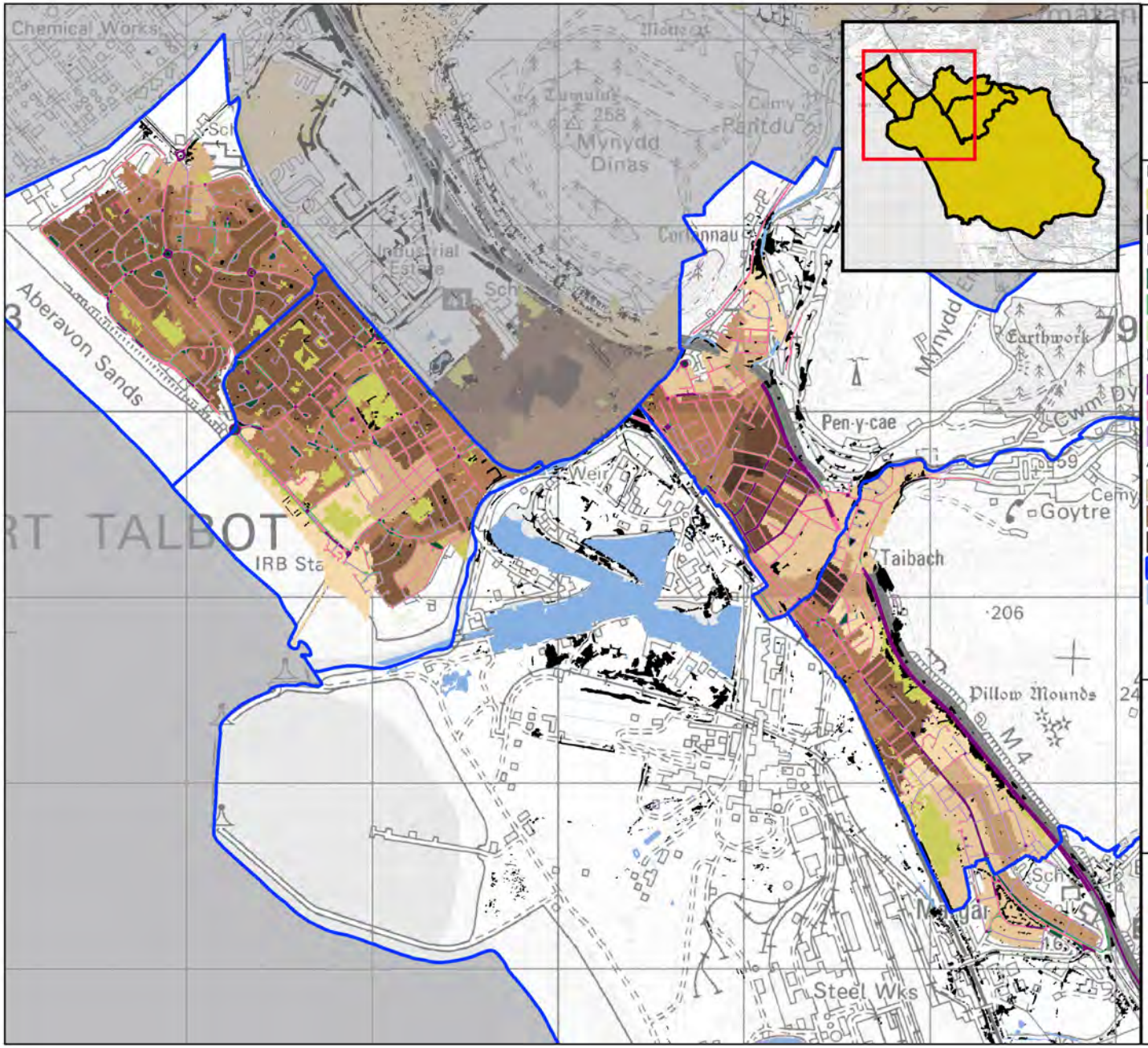

GI Opportunity Mapping and Multiscale Delivery

Opportunity for Roadside Green Infrastructure for Air Quality

Key:

N

- Opportunity for woodland for air quality
- Urban tree cover

Pavement potential for green infrastructure

- Highest potential
- Least potential

Road potential for green infrastructure

- Highest potential
- Lowest potential

Air quality demand space

- Least demand
- Most demand
- Neath Port Talbot case study area
- Neath Port Talbot Waterways

0 0.5 1 km

Prepared by Environment Systems Ltd

Version: 1
May 2018

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Environment Systems evidence and insight

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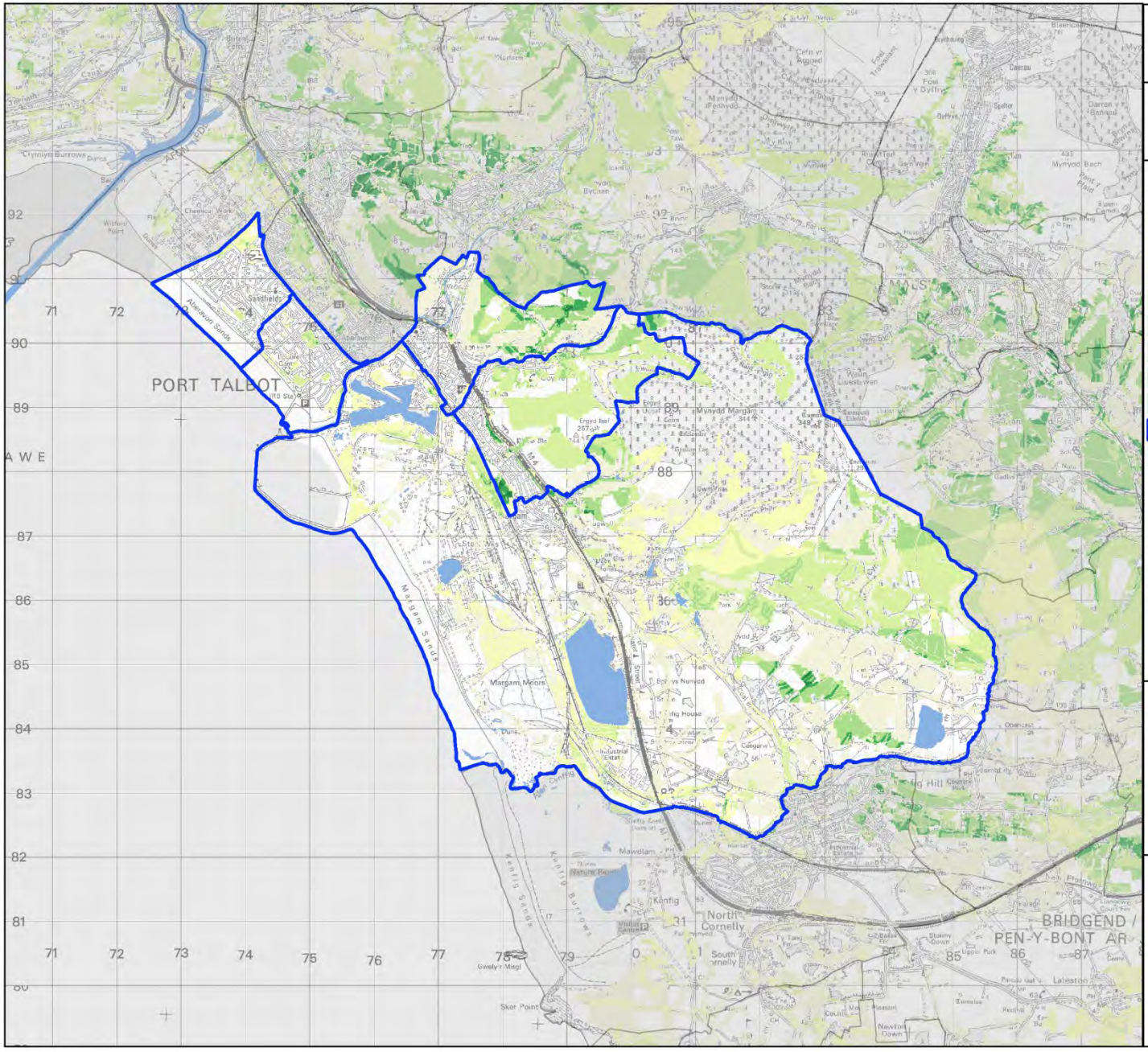

GI Opportunity Mapping and Multiscale Delivery

Multi-Benefits from Woodland Planting

Key:

Nr. of potential ES benefits from Woodland Planting

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- Neath, Port Talbot Wards
- Neath Port Talbot Waterways

N

What the map shows:
The map shows along a gradient from light yellow to dark green the number of ecosystem services that could benefit from woodland planting in an area.

How the map has been created:
The map has been created by overly analysis of the opportunity layers for the woodland network, woodland for NFM, community woodlands, woodland for water quality, woodland for carbon sequestration, woodland for air quality, woodland for reduced noise pollution, and woodland to reduce pluvial flood risk.

0 2 4 km

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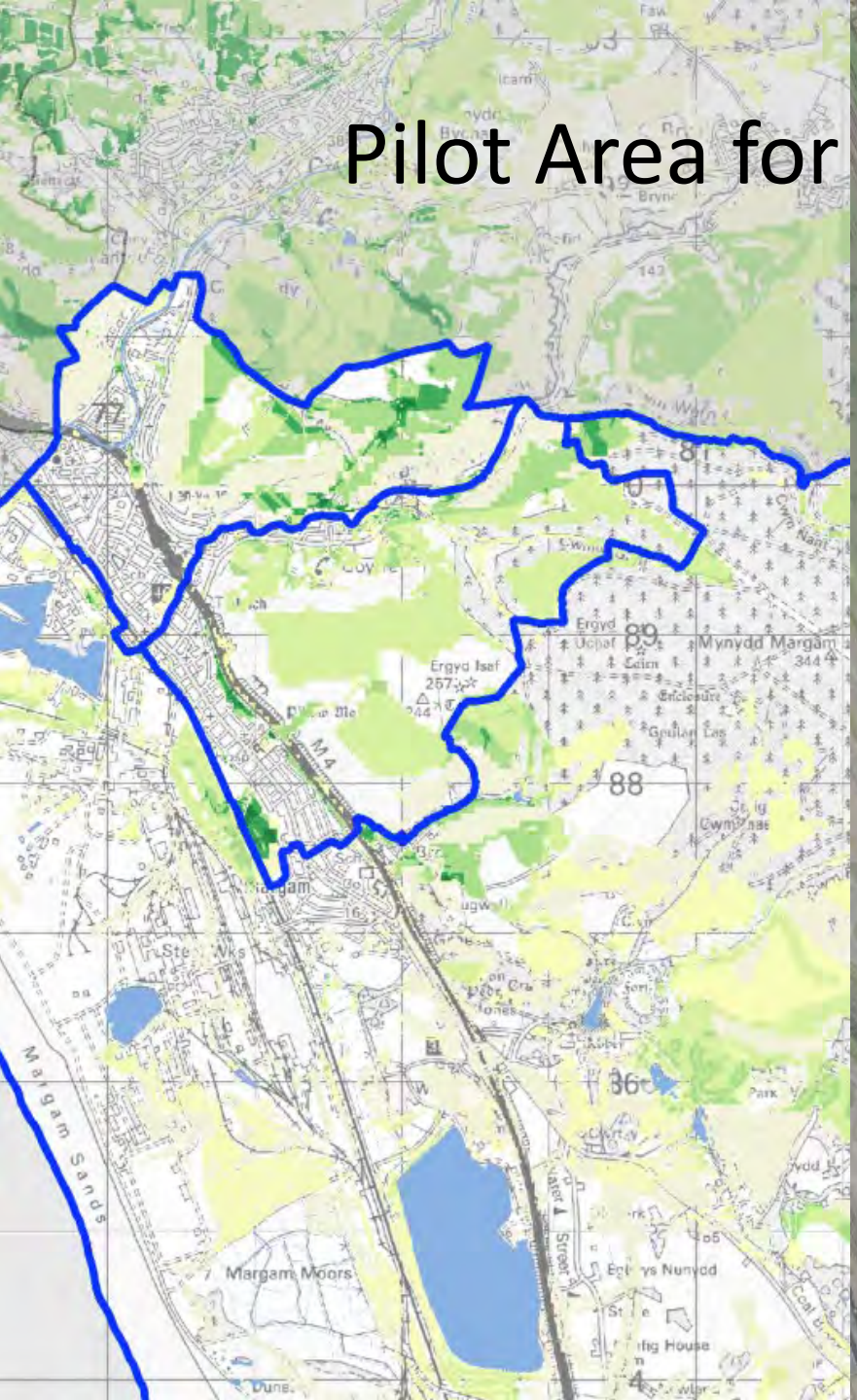
Pilot Area for Neath Port Talbot



Design and Engagement

Site based consultation

- Keep open areas for dog walking, play
- Better access
- Trees for wildlife
- Seating
- Footpath around site
- Wildflower planting

SCHEDULE OF PROPOSALS:

- Existing trees to be retained. Tree condition survey and maintenance work to be undertaken at an appropriate moment.
- Proposed heavy standard trees, 12-14cm girth, min. 3.0m height, root balled. To be planted in min 1000x1000x700 mm tree pit and to be double staked with cross bar and tie. Species to include: Acer campestre, Quercus robur, Betula pubescens, Sorbus aucuparia.
- Proposed feathered tree planting, 1.8m height, bare rooted. To be planted in min 700x700x500 mm tree pit and to be single staked with tie. Species to include: Acer campestre, Quercus robur, Betula pubescens, Sorbus aucuparia.
- Existing scrub planting to be retained.
- Proposed Woodland planting to consist of 2m center, min. 600mm high whip planting. Planting to be pit planted, min 300x300x300mm. Species to include: Quercus robur, Acer campestre.
- Wildflower meadow to consist of Emorsgate Seed mixture EM1- "BASIC GENERAL PURPOSE MEADOW MIXTURE" or similar approved. To be applied as per manufactures recommendations.
- Bulb planting to consist of a mixture of species. Species to include: Narcissus obvallaris, Narcissus poeticus var. recurvus, etc.
- Grass seeded area to be retained and made good where necessary with low maintenance grass mix.
- Sedum and Wildflower roofing to Community Center, to consists of "Onuk Tile" or similar pre grown elements to be installed as per manufacturers recommendations. Full structural survey to be undertaken, prior to engaging work. This work requires additional professional services prior to undertaking.
- …esting boxes of various size to be installed to existing trees, as per ecological …mendations.
- …er bench
- …, constructed from used timber pallettes, and various materials, allowing …t creation

NOTE: Do not scale from this drawing.
All dimensions to be checked on site.
Any discrepancies to be reported to client.
All substitutions to be agreed prior to ordering.

…led. If planting during normal planting season, …sed, alternatively at any time of the year using …xtra watering to ensure plant establishment.

…cts and establishment of all tree planting, 12 …lishment of all shrub planting.

…ckfilled with 3 parts topsoil (imported if …mpost & 8no. 15gm. release, 2 year effective … & tie; soak before and water after planting; …posted peat-free organic mulch, after planting

… backfilled with 3 parts topsoil (imported if …compost & 8no. 15gm. release, 2 year effective …& tie; soak before and water after planting; mulch …ted peat-free organic mulch, after planting and

…mm backfilled with 3 parts topsoil mixed with 1 part …controlled release, 15+9+9+3 fertiliser tablets; mulch …ed peat-free organic mulch, after planting and watering.

…n 300mm depth topsoil; pits 300x300x300mm; backfilled …rt peat-free planting compost & 4no. 15gm. controlled release, … 1m² area around planted tree/shrub to a depth of 50mm using …mulch, after planting and watering. To be provided with individual …elters are to be Tubex Standard Range or similar approved, 750 mm … to be fixed to its own softwood stake, 1.4 m. in length by 30 mm cross … ground to a depth of 500 mm, according to the manufacturer's

… BS. 3882:2015; min depth 450mm for shrubs, 300mm for structure and woodland …g and 150mm for grass seeded areas 9if required); preparation including grading to marry in levels including finishing 25mm above adjacent hard surfaces, kerbs, inspection covers etc. and min 150mm below damp proof course level; cultivation, weed control, and stone-picking to 50mm dimension.

Wildflower/grass meadow Mix: no topsoil; seed on approved friable subsoil base with eg: Emorsgate mixture EM1 "BASIC GENERAL PURPOSE MEADOW MIXTURE" or similar approved.

Grass seeding: Preparation including cultivation, grading and stone-picking to 50mm. Minimum topsoil 150mm, good quality top soil, free of vegetation should be turned over, levelled, lightly consolidated and free from surface stone, other debris and perennial weeds. Do not compact the

GROESWEN PARK

Trees

Number	Species	Height	Girth	Specification	Density
7 No.	Acer campestre	1.8-2.0m		2x BR Feather	Counted
1 No.	Acer platanoides	1.8-2.0m		2x BR Feather	Counted
14 No.	Betula pubescens	1.8-2.0m		2x BR Feather	Counted
5 No.	Carpinus betulus 'Fastigiata'	1.8-2.0m		2x BR Feather	Counted
3 No.	Fagus sylvatica	1.8-2.0m		2x BR Feather	Counted
6 No.	Prunus avium	1.8-2.0m		2x BR Feather	Counted
5 No.	Sorbus aucuparia	1.8-2.0m		2x BR Feather	Counted
7 No.	Acer platanoides	3.0-4.0m	12-14cm	RB 2x Clear Stem 150-175	Counted
16 No.	Betula pubescens	3.0-4.0m	12-14cm	RB 2x Clear Stem 150-175	Counted
5 No.	Castanea sativa	3.0-4.0m	12-14cm	RB 2x Clear Stem 150-175	Counted
7 No.	Fagus sylvatica	3.0-4.0m	12-14cm	RB 2x Clear Stem 150-175	Counted
1 No.	Prunus avium	3.0-4.0m	12-14cm	RB 2x Clear Stem 150-175	Counted
89 No.	Acer campestre	60-80cm		1+0 Whip BR	2Ctr
84 No.	Alnus glutinosa	60-80cm		1+0 Whip BR	2Ctr
85 No.	Betula pubescens	60-80cm		1+0 Whip BR	2Ctr
44 No.	Castanea sativa	60-80cm		1+0 Whip BR	2Ctr
89 No.	Crataegus monogyna	60-80cm		1+0 Whip BR	2Ctr
54 No.	Prunus avium	60-80cm		1+0 Whip BR	2Ctr

Bulbs

Number	Species	Specification	Density
12762 No.	Fritillaria imperialis 'Rubra'	Grade 4/5	40/m²
5207 No.	Galanthus nivalis	Grade 4/5	40/m²
10930 No.	Narcissus obvallaris	Grade 4/5	40/m²
5459 No.	Narcissus poeticus var. recurvus	Grade 4/5	40/m²

For Planting details, please refer to drawing 2018s1028-JBA-03-03-DR-L-9004

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Project
NPT GREEN INFRASTRUCTURE

Title
GROESWEN PARK LANDSCAPE PROPOSALS

for

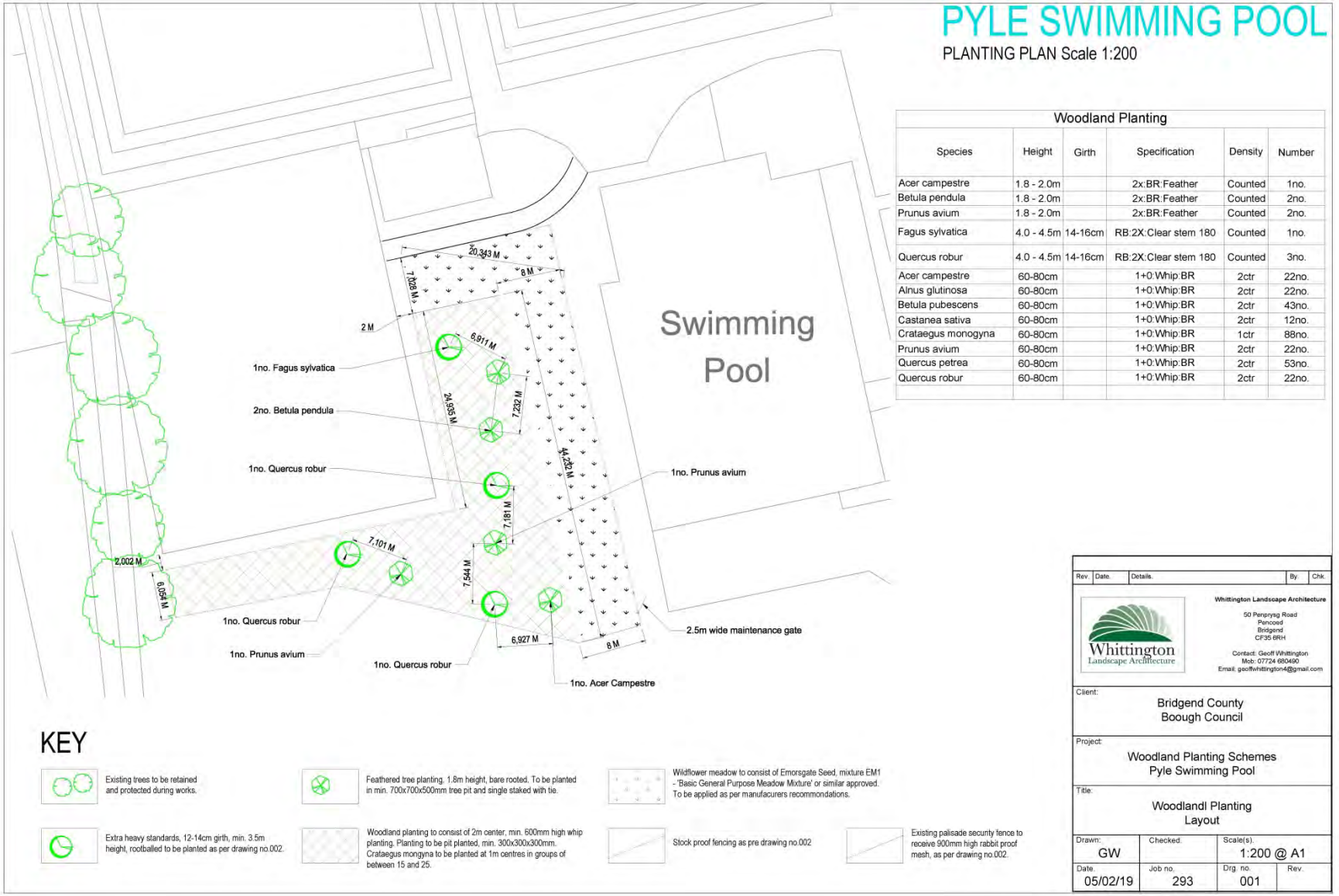
Client
Neath Port Talbot
County Borough Council

Scale	Drawn: CW
1 to 250 @ A1	Designed: CW
	Checked: –
	Approved: –

Project Number: 2018s1028

Drawing Number	Revision
2018s1028-JBA-03-03-DR-L-9001	02

Bridgend



Woodland Planting					
Species	Height	Girth	Specification	Density	Number
Acer campestre	1.8 - 2.0m		2x:BR:Feather	Counted	1no.
Betula pendula	1.8 - 2.0m		2x:BR:Feather	Counted	2no.
Prunus avium	1.8 - 2.0m		2x:BR:Feather	Counted	2no.
Fagus sylvatica	4.0 - 4.5m	14-16cm	RB:2X:Clear stem 180	Counted	1no.
Quercus robur	4.0 - 4.5m	14-16cm	RB:2X:Clear stem 180	Counted	3no.
Acer campestre	60-80cm		1+0:Whip:BR	2ctr	22no.
Alnus glutinosa	60-80cm		1+0:Whip:BR	2ctr	22no.
Betula pubescens	60-80cm		1+0:Whip:BR	2ctr	43no.
Castanea sativa	60-80cm		1+0:Whip:BR	2ctr	12no.
Crataegus monogyna	60-80cm		1+0:Whip:BR	1ctr	88no.
Prunus avium	60-80cm		1+0:Whip:BR	2ctr	22no.
Quercus petrea	60-80cm		1+0:Whip:BR	2ctr	53no.
Quercus robur	60-80cm		1+0:Whip:BR	2ctr	22no.

KEY

Existing trees to be retained and protected during works.

Feathered tree planting. 1.8m height, bare rooted. To be planted in min. 700x700x500mm tree pit and single staked with tie.

Wildflower meadow to consist of Emorsgate Seed, mixture EM1 - 'Basic General Purpose Meadow Mixture' or similar approved. To be applied as per manufacurers recommondations.

Extra heavy standards, 12-14cm girth, min. 3.5m height, rootballed to be planted as per drawing no.002.

Woodland planting to consist of 2m center, min. 600mm high whip planting. Planting to be pit planted, min. 300x300x300mm. Crataegus mongyna to be planted at 1m centres in groups of between 15 and 25.

Stock proof fencing as pre drawing no.002

Existing palisade security fence to receive 900mm high rabbit proof mesh, as per drawing no.002.

Rev.	Date.	Details.	By.	Chk.

Whittington Landscape Architecture

Whittington Landscape Architecture
50 Penprysg Road
Pencoed
Bridgend
CF35 6RH

Contact: Geoff Whittington
Mob: 07724 680490
Email: geoffwhittington4@gmail.com

Client:
Bridgend County Boough Council

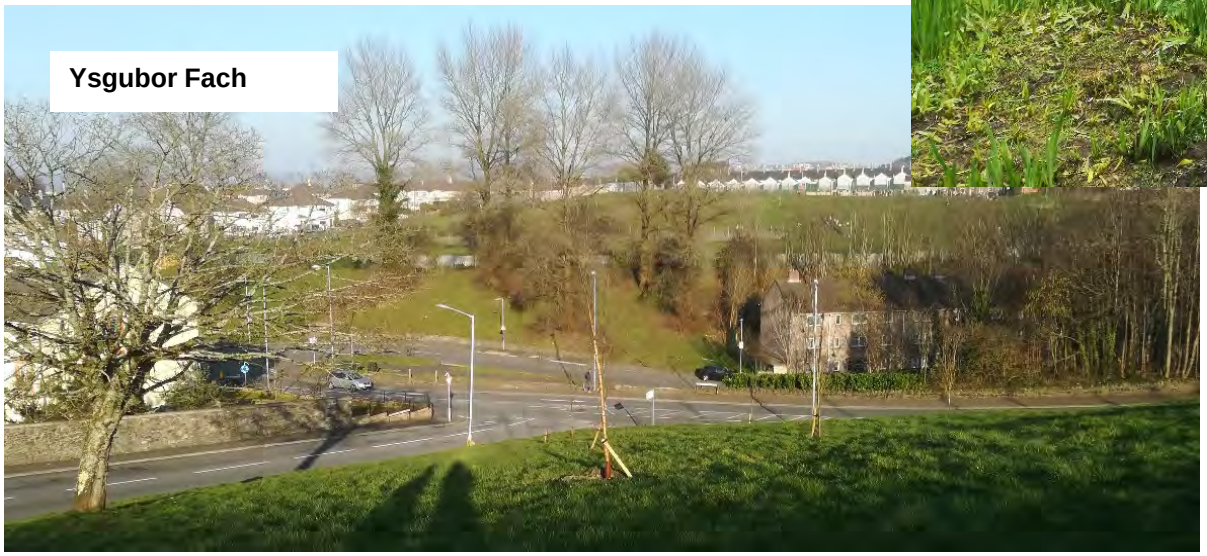
Project:
Woodland Planting Schemes
Pyle Swimming Pool

Title:
Woodlandl Planting Layout

Drawn:	Checked:	Scale(s).	
GW		1:200 @ A1	
Date.	Job no.	Drg. no.	Rev.
05/02/19	293	001	

Pyle Swimming Pool Bridgend

Swansea



Outcomes

GI maps– good resource to inform action

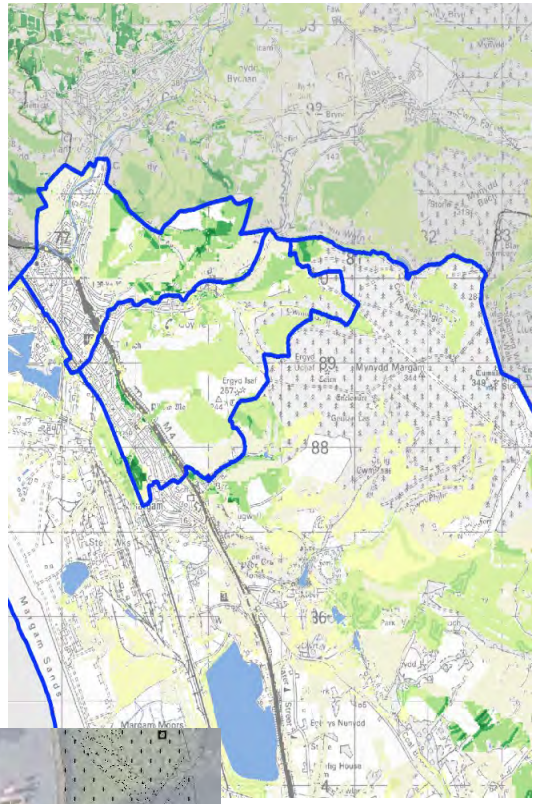
New contacts and new partners

Raised the profile of GI

Physical improvements

Framework for further partnership working

Learnt a lot!



Lessons learnt / Challenges!

- Administrative burden for one partner
- Timing (decisions take longer)
- Need to get framework in place (timing again)
- Contracts become larger and impact on procurement rules
- Larger contracts can disadvantage smaller, local consultancies
- Short term funding to deliver long term projects!

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What next:

Refine and make use of maps

Innovation

Integrate GI into plans / strategies

Internal collaborative working

Continue partnership approach

Future funding / project delivery

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