

Timetable

9.30am - 9.35am - Welcome to the day and 'My Tree Rocks Challenge' - Pete Stringer

9.35am - 10.00am - City of Trees a new movement for Greater Manchester - Pete Stringer

10.00am - 10.20am - An evidence based mapping approach to tree planting - Bryan Cosgrove

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Manchester
City of Trees

My Tree Rocks Challenge

GROWING MORE TREES
FOR GREATER MANCHESTER





Manchester
City of Trees

GROWING MORE TREES
FOR GREATER MANCHESTER

My Tree Rocks Challenge

Prizes for the best pop / rock songs or bands with a tree name / theme.

Here's a few we prepared earlier;

A town called **Malus** by the Jam

Acer Spades by Motorhead

Privet dancer by Tina Turner


Poplar don't **pleach** by Madonna

City of Trees

Bringing Trees to the People of Greater Manchester

City of Trees is an innovative and exciting movement set to re-invigorate Greater Manchester's landscape by transforming underused, unloved woodland and planting a tree for every man, woman and child who lives there, within a generation.

City of trees is a movement, bringing together the public, private and third sectors, and the people of Greater Manchester



Pete Stringer,
City of Trees
pete@cityoftrees.org.uk



THE GOAL

3m

trees, planted across
the city region over
the next two decades

1.5%

of land deemed as
ready for planting,
converted to woodland

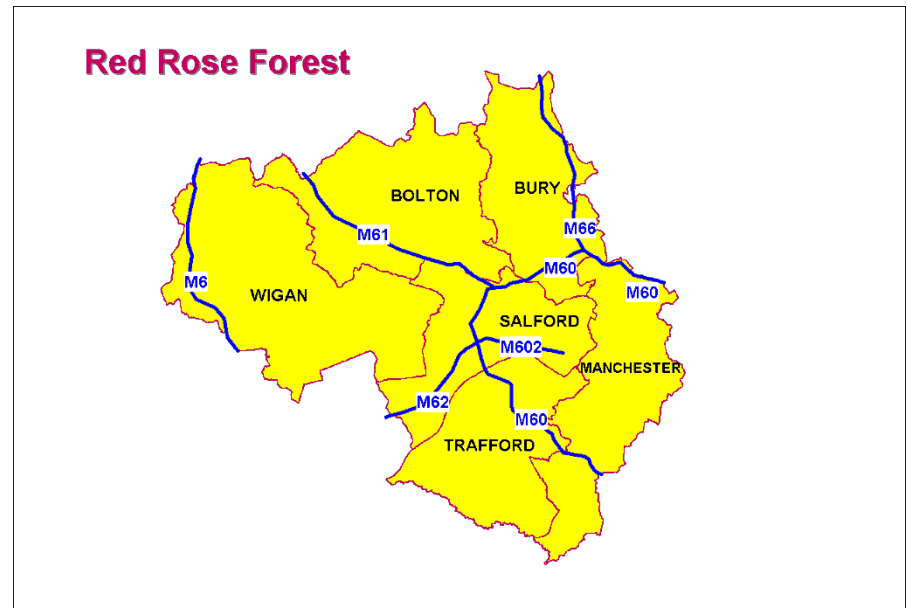
2,000

hectares of currently
unmanaged woodland
brought into productive,
beneficial state



From a Forest To a City of Trees

- Red Rose Forest – one of 12 community forests in England
- Launched in 1991 covering the districts of Bolton, Bury, Manchester, Salford, Trafford & Wigan



Red Rose Forest

Outputs

- **WOODLANDS**
- Area of new planting 1,243 ha
- Area of existing woodland brought into management 3,026 ha
- **RECREATION & ACCESS**
- Woodland newly opened for access 121.76 3,380 ha
- Non-woodland areas opened for access 702 ha
- Routes opened up for recreation and access 728.6 km
- **NON-WOODLAND**
- Non-woodland habitats created or managed 2880 ha
- Hedgerow created and/or managed 100 km
- Street/urban trees planted 5,000
- **COMMUNITY INVOLVEMENT**
- Community events 17,762
- School events 54
- **FINANCIAL AND IN-KIND SUPPORT**
- Total support secured £56.8m

Time for a Change

- Reduction in local authority funding
- More private Sector interest
- The Oglesby Charitable Trust



A New Partnership

patagonia

ARUP

Wates

pro-manchester
Leading Manchester

Stoller
Charitable Trust
providing a history fund since 1988



GREAT
GROUNDS
EDUCATE - PRODUCE - CREATE

JACOBS



Qsustain
Specialist Consultants in the Built Environment

mace



creative concern



Wythenshawe
Community Housing Group

walker simpson architects

MILLS & REEVE
Achieve more. Together.

GallifordTry



RJP RUTH JACKSON
PLANNING LTD

Viridor
Transforming waste™

urbansplash

Urban&Civic

URBAN
GREEN



ARCADIS

OMI

United
Utilities
helping life flow smoothly

MANCHESTER
1824
The University of Manchester

Turley



RSK



tpm landscape
chartered landscape architects

Select Property Group



SIEMENS

AFL
architects

STEPHEN MARLOWE
LANDSCAPE ARCHITECTURE

deeproot

Transport for
Greater Manchester

RENAKER
Constructing Solutions

ALLIANCE



ATLANTIC GATEWAY
PARKLANDS

New Sources of Funding

- Core funding is much smaller from our local authority partners but we now receive pay as you go support from the districts for specific pieces of work
- In addition to our traditional funding targets:

Crowd funding



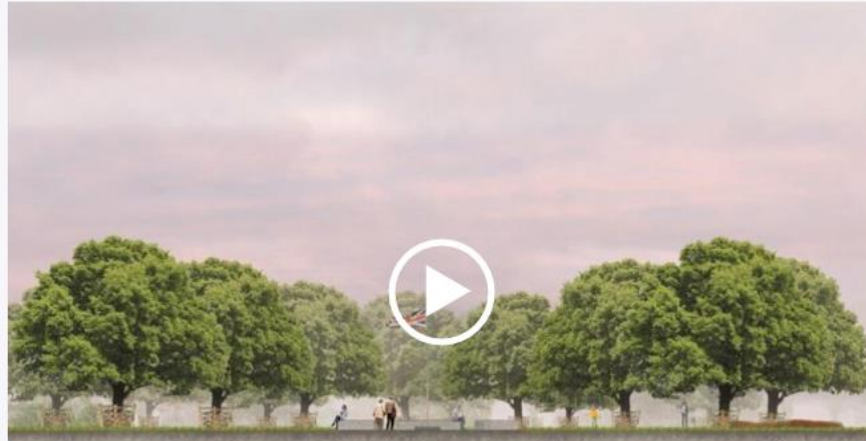
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Heroes Wood

By [City of Trees](#) [Manchester](#) [Delivery stage](#)



At the going down of the sun and in the morning we will remember them
For all the people of Gorton that served their country in WW1 and conflicts since

00:00 00:00

Share this project

Like 5 Comment 9 Follow 61

Our project will create a WW1 centenary woodland to commemorate the involvement of Mancunians in the First World War with the involvement of local schools and residents.



87
backers

£51,650
pledged of £51,609

City of Trees

[About me](#)

[CityofTreesMcr](#)



Sponsorship



CSR Days



We offer bespoke, activity-based team-building days across Greater Manchester for your employees, customers or clients

Guidance for Developers

The Sky Gardens and Roof Gardens XXXXXX Estates Group

Tree Replacement Opportunity Survey Findings

Produced by City of Trees June 30th 2017



Section 106

Planting Associated with New Developments



Support a Scheme



Manchester
City of Trees

GROWING MORE TREES
FOR GREATER MANCHESTER

About City of Trees Why we need
in action Get involved Explore a city of trees
Cit

Support a scheme

If you are a company, organisation or business looking to help make Greater Manchester a healthier, happier, more resilient and prosperous place to live, work and enjoy then we have a number of initiatives that you can support to help grow your green credentials.

We work with you

We know that in business flexibility is key. Every organisation is unique and has its own priorities, visions and values. We can work with you to ensure your support is tailored to your interests - whether that's a specific location, or a particular issue you feel passionate about, we'll help you get closer to the people and places that matter to you.

Get in touch to find out how we can work together – email tony@cityoftrees.org.uk or call 0161 872 1660.

Urban orchards



Schools Projects



Green Streets



Fund a forest or woodland



Delivery so Far

Only 2,772,724 trees to go!



227,276

Total number of trees
planted



333

Street trees planted



1,026

Fruit trees planted



4,177

School children inspired to
love trees



9,264

People connected to nature



5,768

Volunteer hours donated



223.68

Total hectares of woodland
managed



54

Orchards created

Green Roofs

GROWING MORE TREES
FOR GREATER MANCHESTER



Community Woodland Planting

GROWING MORE TREES
FOR GREATER MANCHESTER



Woodlands as Part of Planning Conditions



Woodland Management



Community Orchards



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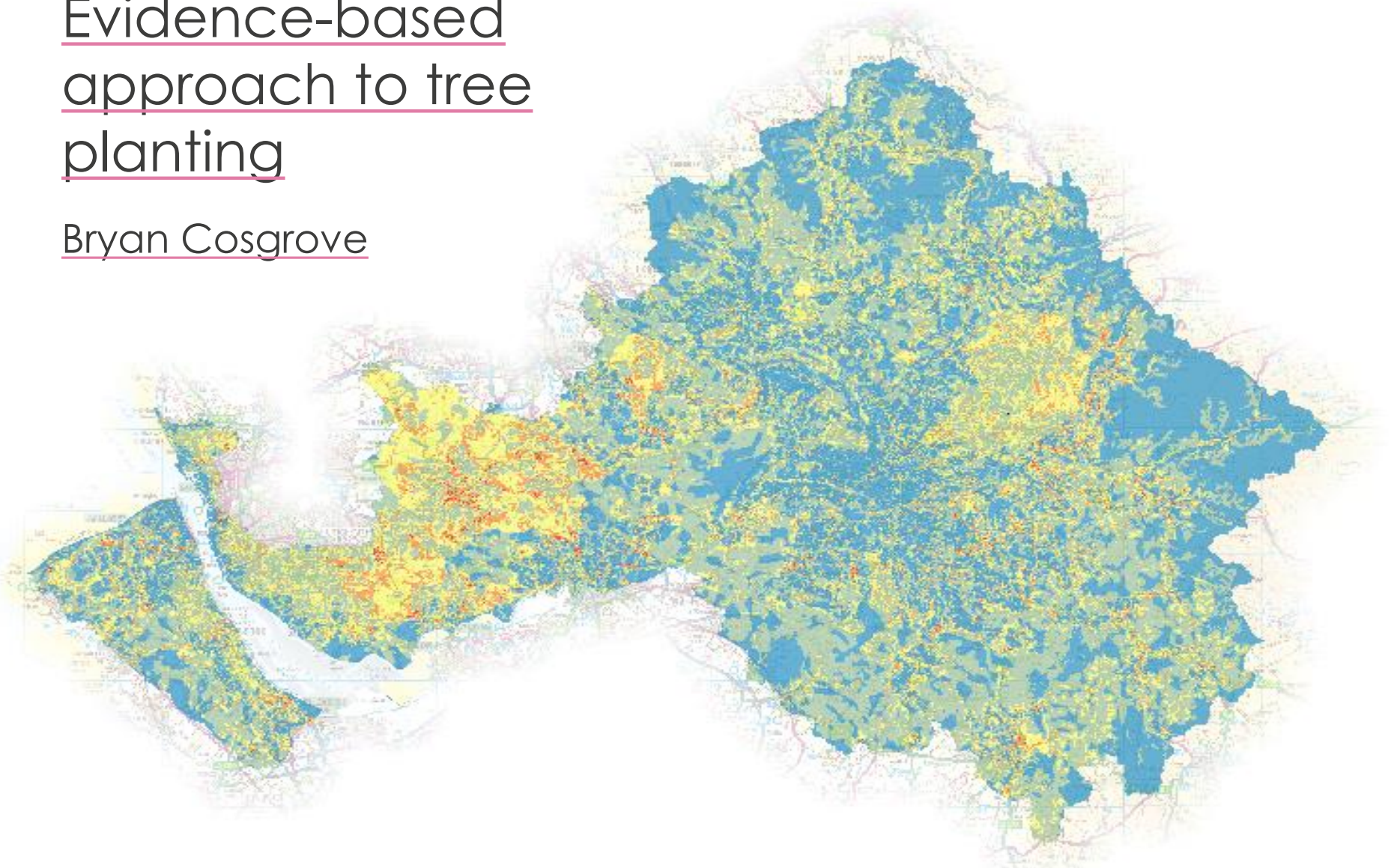


Manchester
City of Trees

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FOR GREATER MANCHESTER

Evidence-based approach to tree planting

Bryan Cosgrove

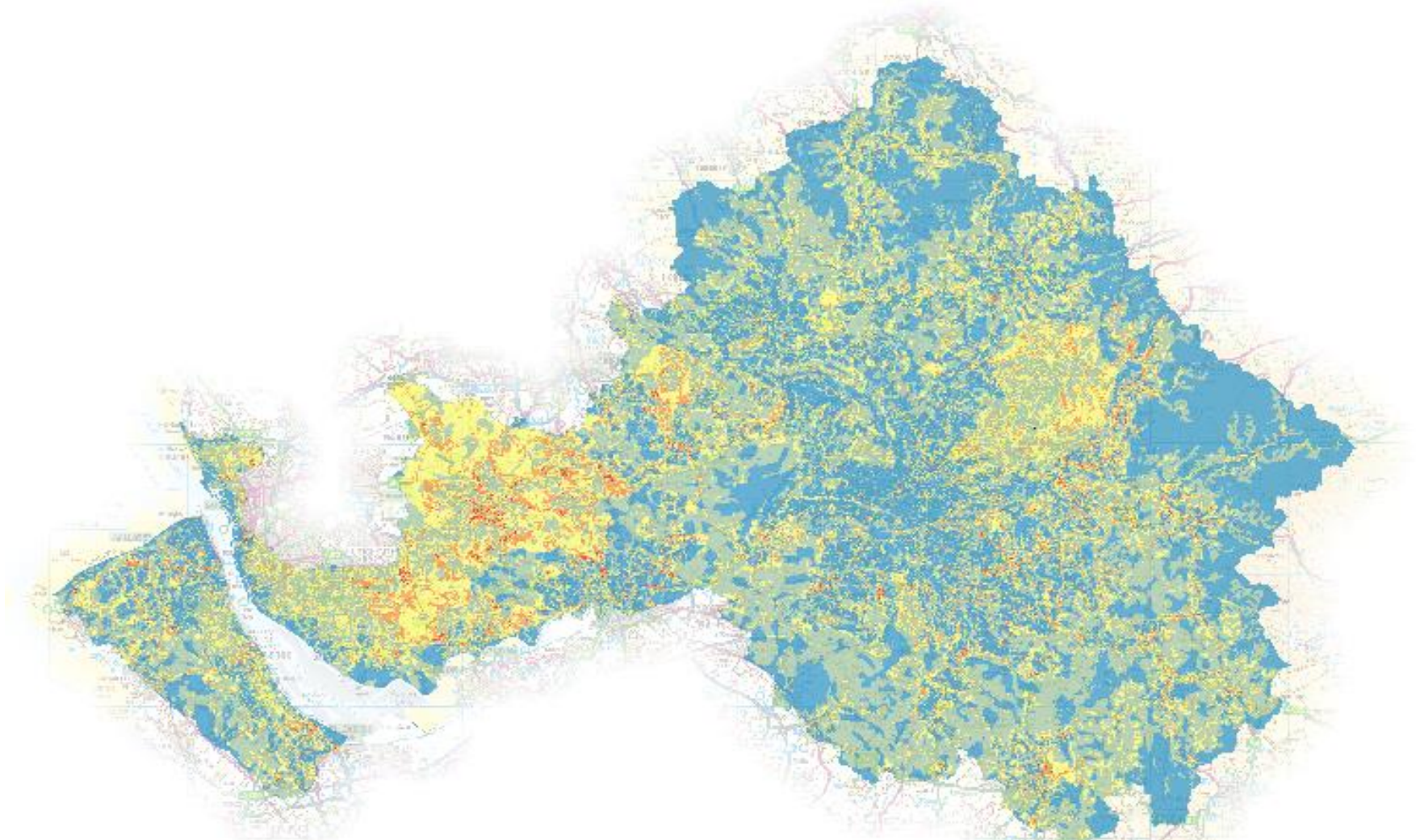


Why be strategic?

- Limited resources.
- Finding space for trees in crowded streets.
- Competing priorities/change in local or national priorities (where's the funding).
- We have to be able to tell a compelling story when making proposals for schemes.
- In a crowded “market”, important for us to be seen amongst the “family” of public sector organisation in GM as the go-to organisation on all matters trees.



Green Infrastructure for Water (GI4W)

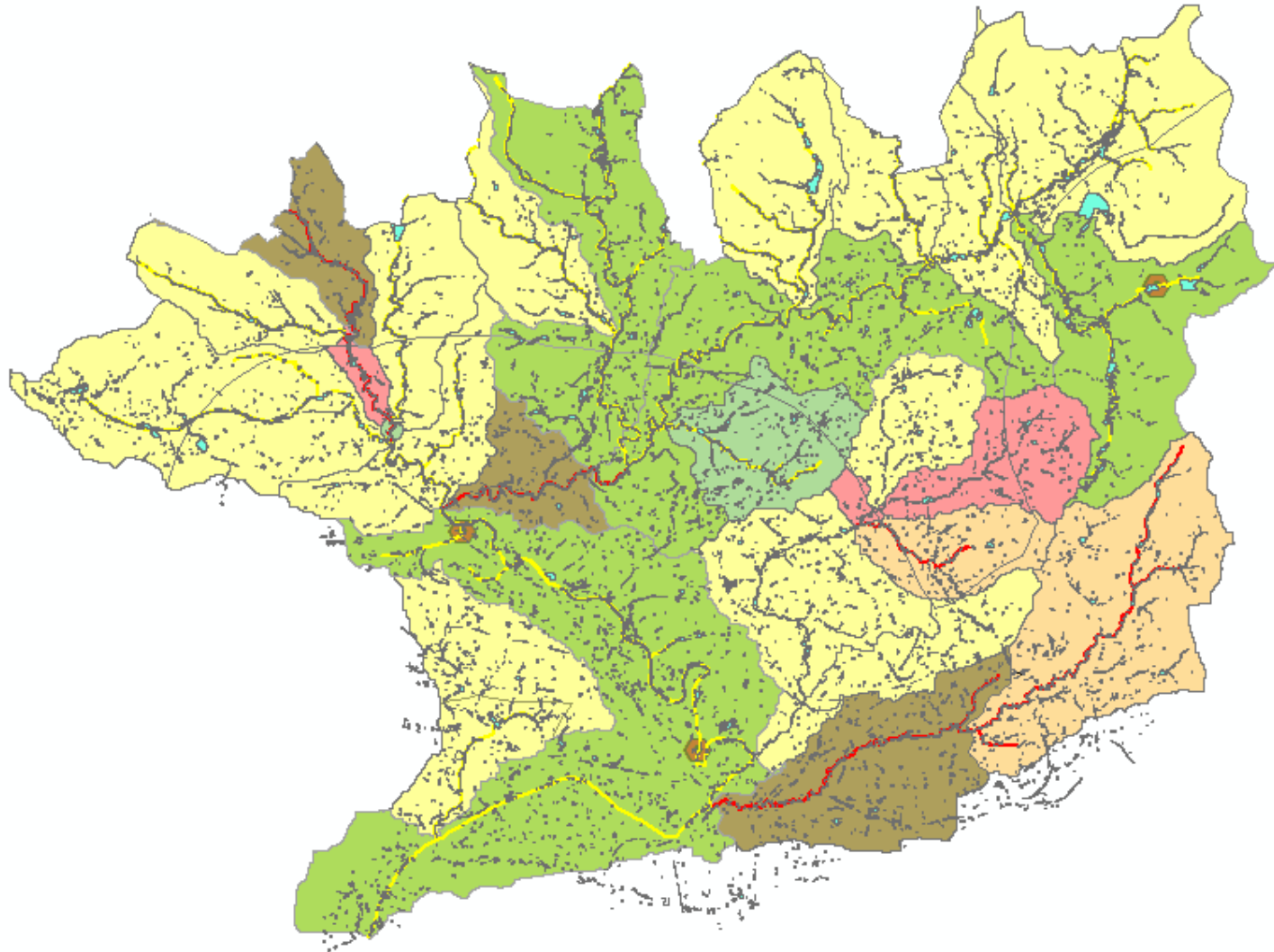


Green Infrastructure for Water (GI4W)

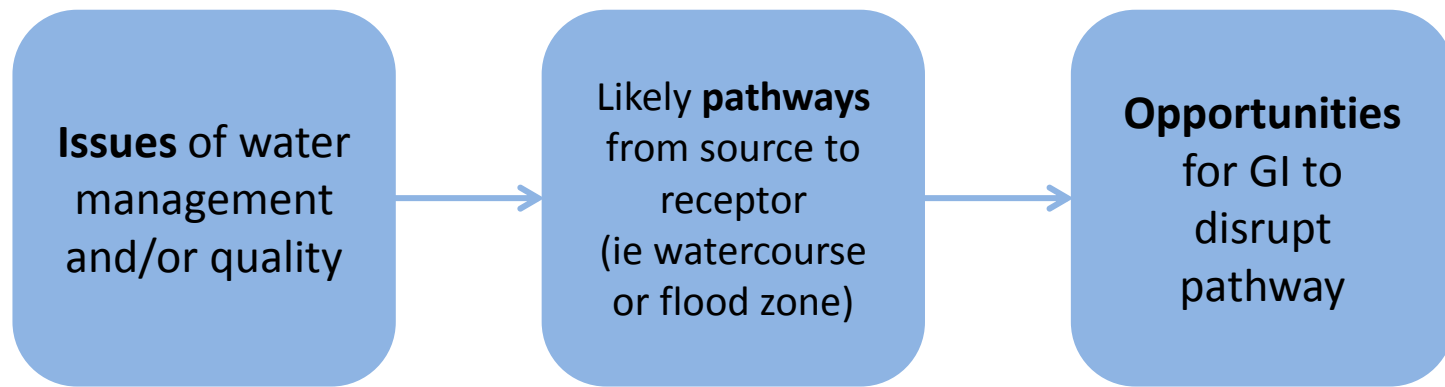
- Growing body of evidence of effectiveness of GI in tackling problems with water environment.
- There has been a focus on rural problems and opportunities (e.g. WFW, Forest Research).
- Recent work on Urban Diffuse Pollution has concentrated on locations of greatest need, and been broad in scale.
- Need to find genuine opportunities for cost-effective deployment of GI.



Initial approach: where are the issues?



Methodological approach

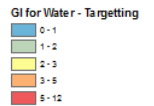
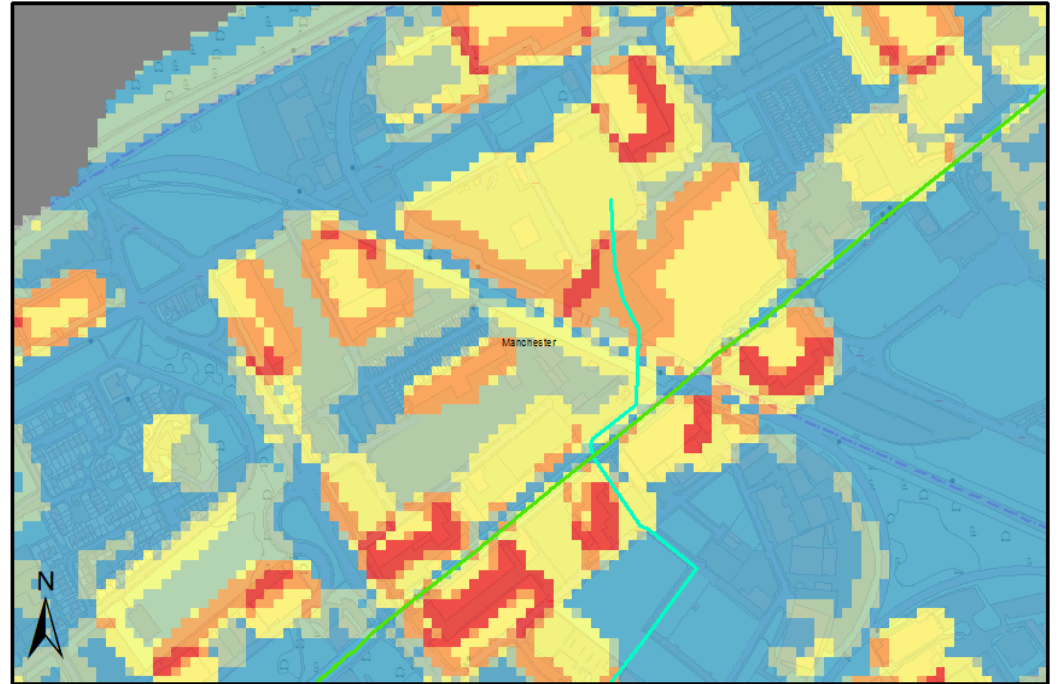
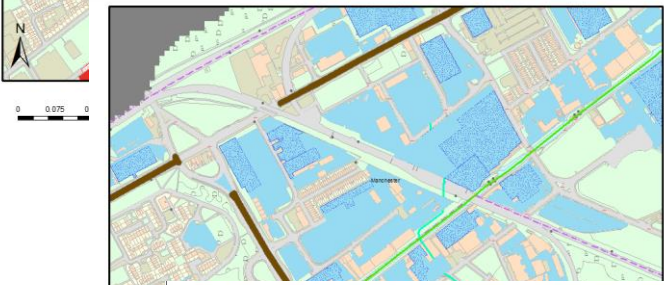


Benefits of trees and GI for water

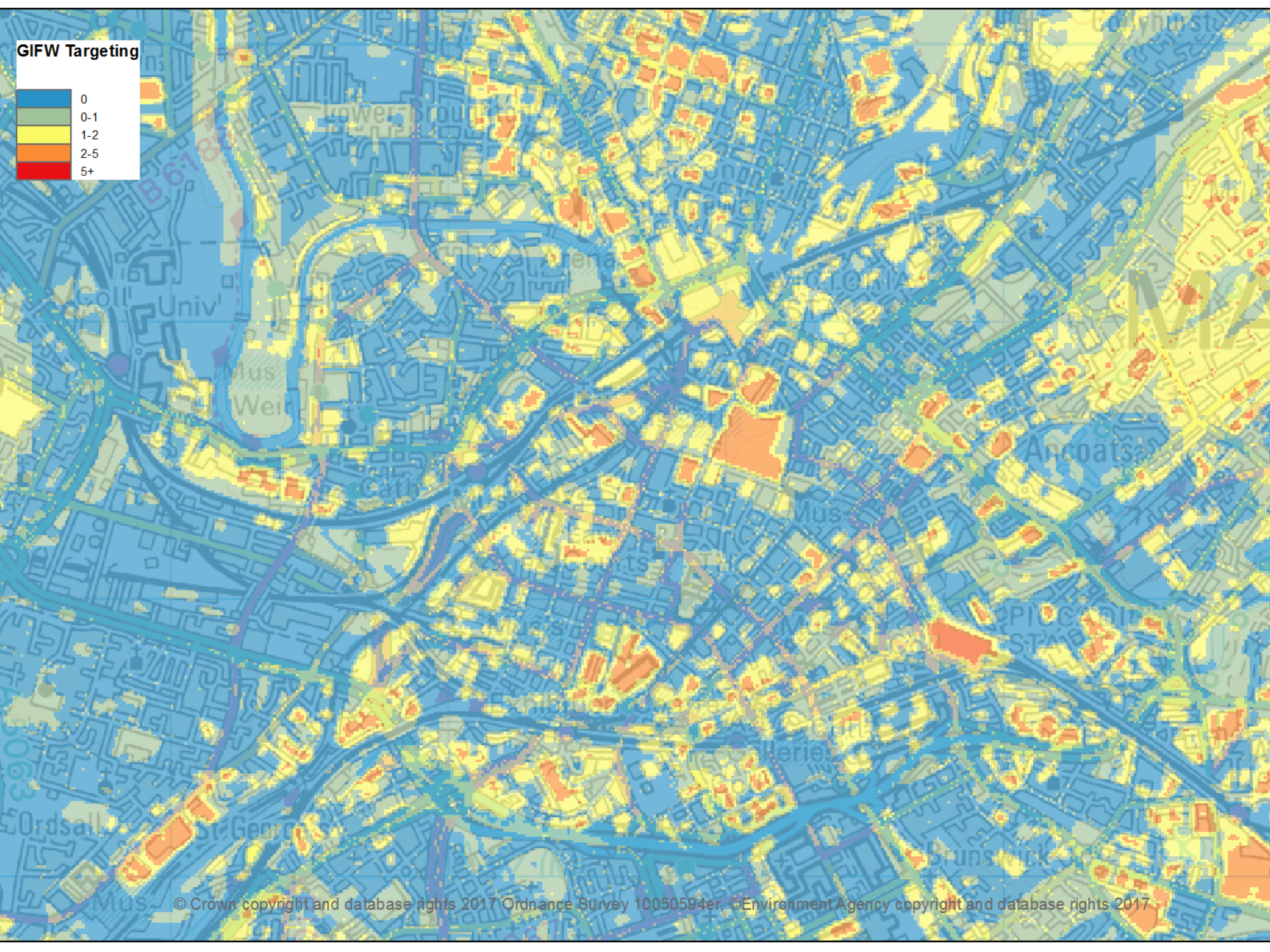
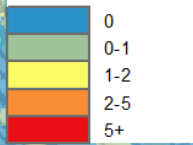


Water-related Issues with potential GI solutions	Likely pathways	Mapped features likely to present opportunities for GI	Likely GI interventions
Road Film	<ul style="list-style-type: none"> Highways drains 	<ul style="list-style-type: none"> Highways within close (300m) proximity to river network. 	<ul style="list-style-type: none"> Trough systems Swales Diversion to wet woodland Diversion to attenuation ponds
Aerial Deposits	<ul style="list-style-type: none"> Industrial and retail park surface water drainage Other large car parks Large areas of hard landscaping 	<ul style="list-style-type: none"> Roofs and car parks/yards at business, retail and industrial parks close to watercourses Large impermeable surfaces in town centres 	<ul style="list-style-type: none"> Rain gardens Trough Gardens Infiltration zones
Contaminated land and historic landfill	<ul style="list-style-type: none"> Leaching to adjacent watercourses Surface runoff to watercourses 	<ul style="list-style-type: none"> Contaminated land sites in proximity to watercourses Historic landfill sites in proximity to watercourses 	<ul style="list-style-type: none"> Reed bed systems Filter strips
Mixed agricultural	<ul style="list-style-type: none"> Overland runoff to watercourses Channelled drainage 	<ul style="list-style-type: none"> Agricultural sites in close proximity to watercourses 	<ul style="list-style-type: none"> Filter strips Infiltration zones Riparian tree planting
Contaminated surface water (domestic)	<ul style="list-style-type: none"> Direct connections between domestic properties and surface water drainage (misconnections, generally properties built after the 1920's) 	Surface water drainage connections to watercourses within areas of housing	<ul style="list-style-type: none"> Reed bed systems
Domestic sewage	<ul style="list-style-type: none"> Combined Sewer Overflows (These also present a pathway for all urban pollutants and water volumes, otherwise directed to the sewer network) Septic tank systems 	<ul style="list-style-type: none"> Interventions for CSOs are the same as for reducing water volumes and are addressed elsewhere Locations of properties with Septic systems, in WB catchments with >10% P inputs from septic systems, as modelled by SAGIS 	<ul style="list-style-type: none"> Full range of infiltration, retention, and flow attenuation systems, dependent on site conditions
Industrial/trade discharge	<ul style="list-style-type: none"> Surface runoff to watercourses Surface runoff to surface water drainage network Direct discharges to surface water drainage network (misconnections) 	<ul style="list-style-type: none"> Industrial parks Boundaries between industrial/waste sites and watercourses 	<ul style="list-style-type: none"> Reed bed systems Filter strips
Mine workings and spoil heaps	<ul style="list-style-type: none"> Direct discharges to watercourses Leaching to adjacent watercourses Surface runoff to watercourses 	<ul style="list-style-type: none"> On-site, or in close proximity to discharge point 	<ul style="list-style-type: none"> Reed bed systems Wet woodlands
Urbanisation - impermeability	<ul style="list-style-type: none"> Runoff from impermeable surfaces and roofs to surface water drainage and combined sewer networks 	<ul style="list-style-type: none"> Large areas of roof in built up areas Areas of hard landscaping in built up areas Large natural surface intersecting large hard Surfaces in otherwise built-up areas Woodland intersecting road network 	<ul style="list-style-type: none"> Full range of infiltration, retention, and flow attenuation systems, dependent on site conditions
Surface drainage - housing	<ul style="list-style-type: none"> Runoff from impermeable surfaces and roofs to surface water drainage and combined sewer networks 	<ul style="list-style-type: none"> Soft surface within residential areas Residential streets 	<ul style="list-style-type: none"> Full range of infiltration, retention, and flow attenuation systems Street trees and infiltration trenches
Urbanisation - urban development	<ul style="list-style-type: none"> Breaching of banks close to domestic properties Steep ground 	<ul style="list-style-type: none"> Flood-prone areas within, and downstream of housing Steep ground (planting) 	<ul style="list-style-type: none"> Meanders Backwaters Woody debris dams Riparian planting Shrub or tree planting to increase surface roughness

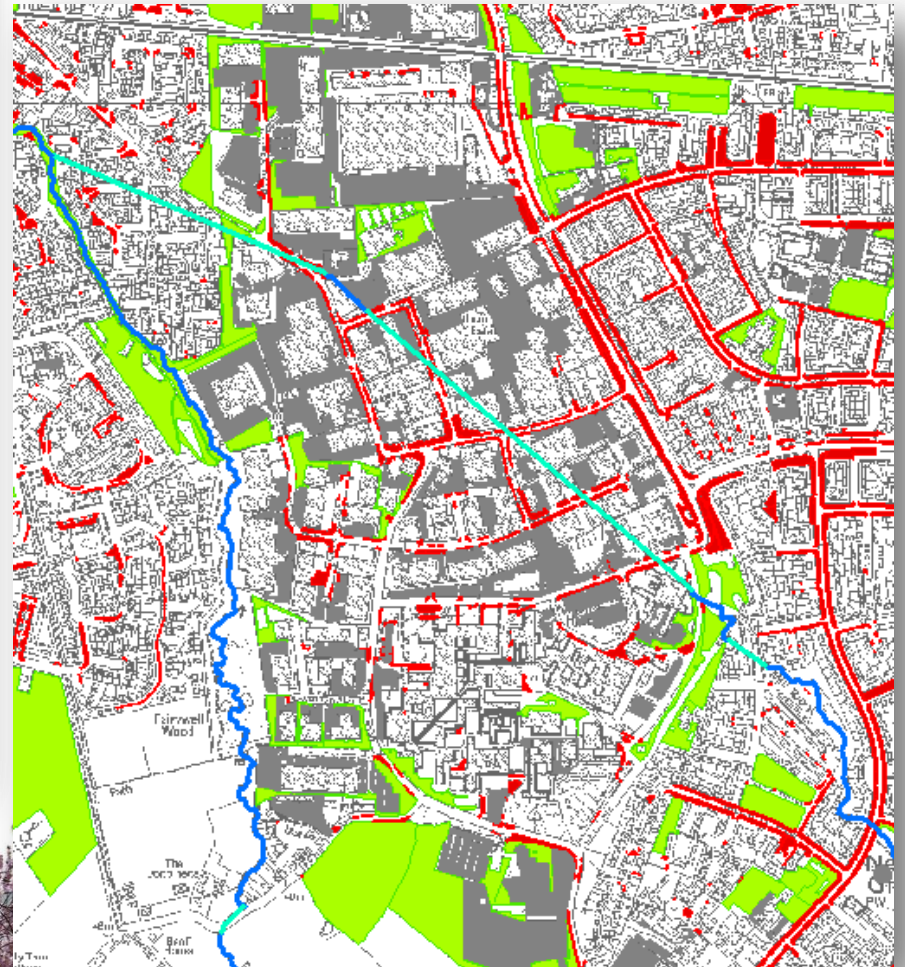
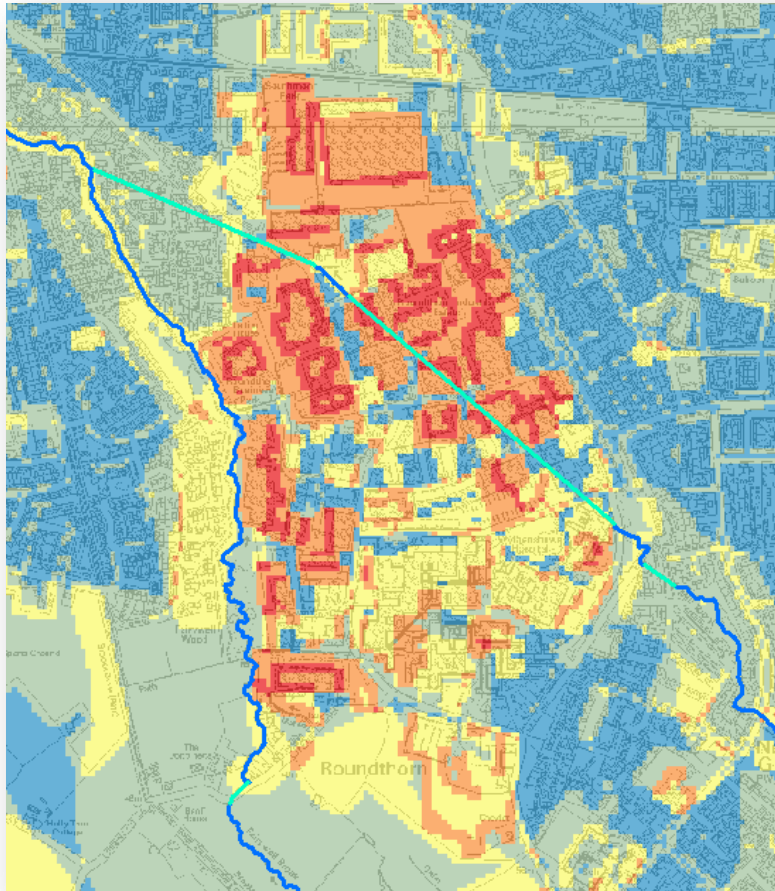
GIS Overlay Model









GIFW Targeting



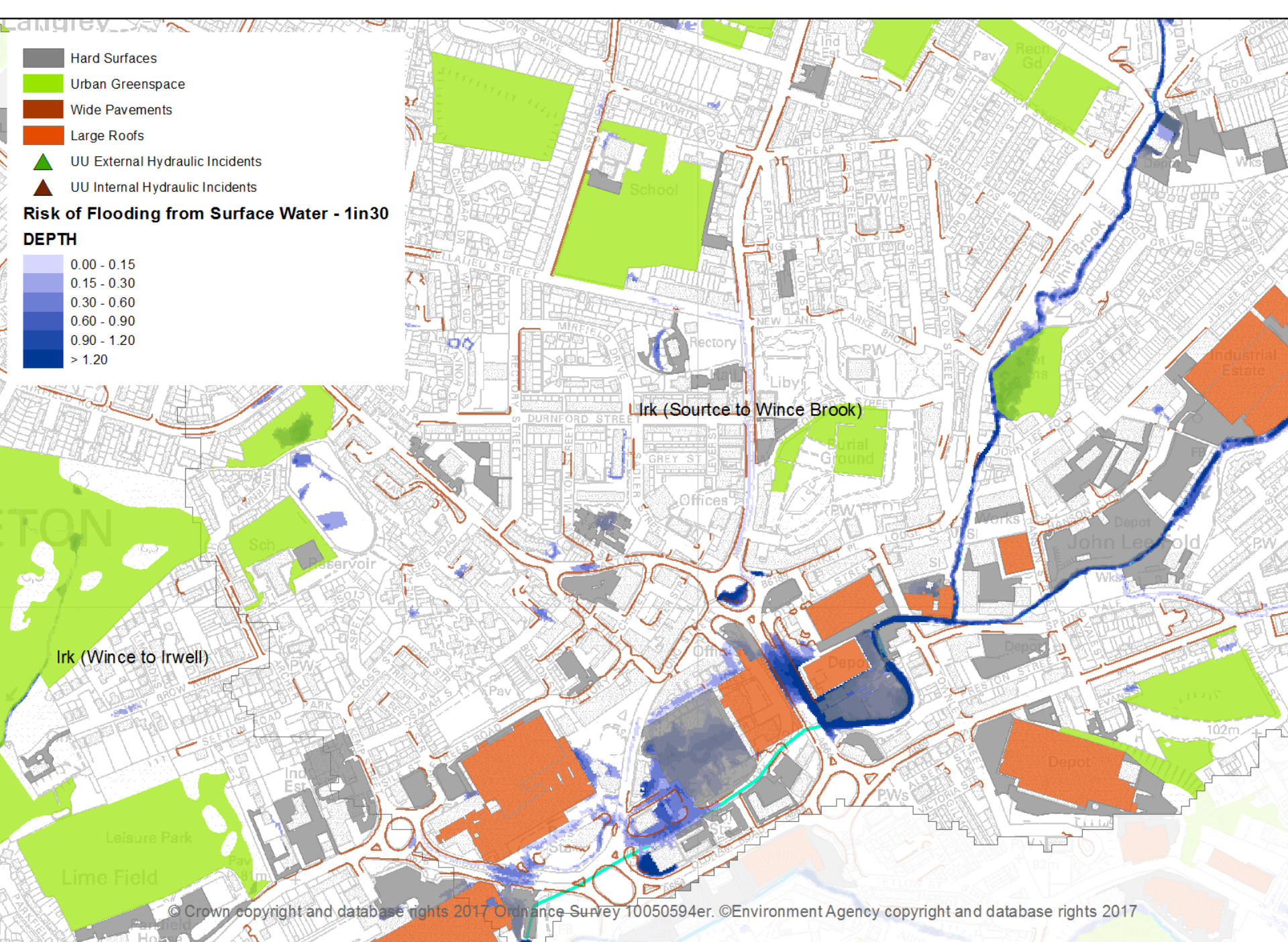
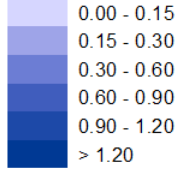
Site-level examination



-  Hard Surfaces
-  Urban Greenspace
-  Wide Pavements
-  Large Roofs
-  UU External Hydraulic Incidents
-  UU Internal Hydraulic Incidents

Risk of Flooding from Surface Water - 1in30

DEPTH



Irk (Source to Wince Brook)

Irk (Wince to Irwell)

Ground-truthing

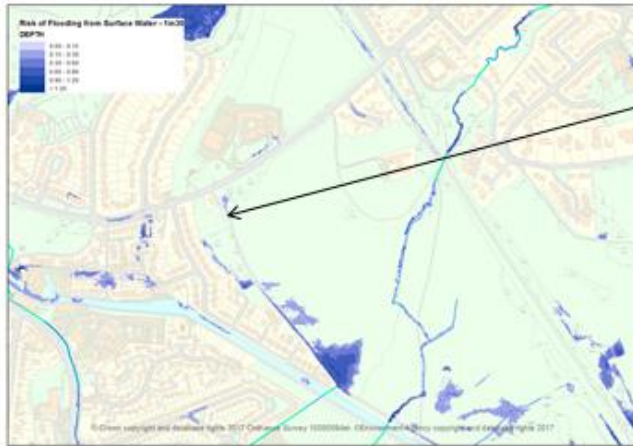


How is this mapping being used?

4.9. Monton Road, Broadoak

Waterbody: Folly Brook and Salter's Brook
SD 75398 00434

This site presented an opportunity to reduce pressure on the sewer network, as identified by UU (not shown here), by diverting surface water away from highway drains and into existing woodland, to create a wet woodland habitat.



Showing potential wet woodland location (1).

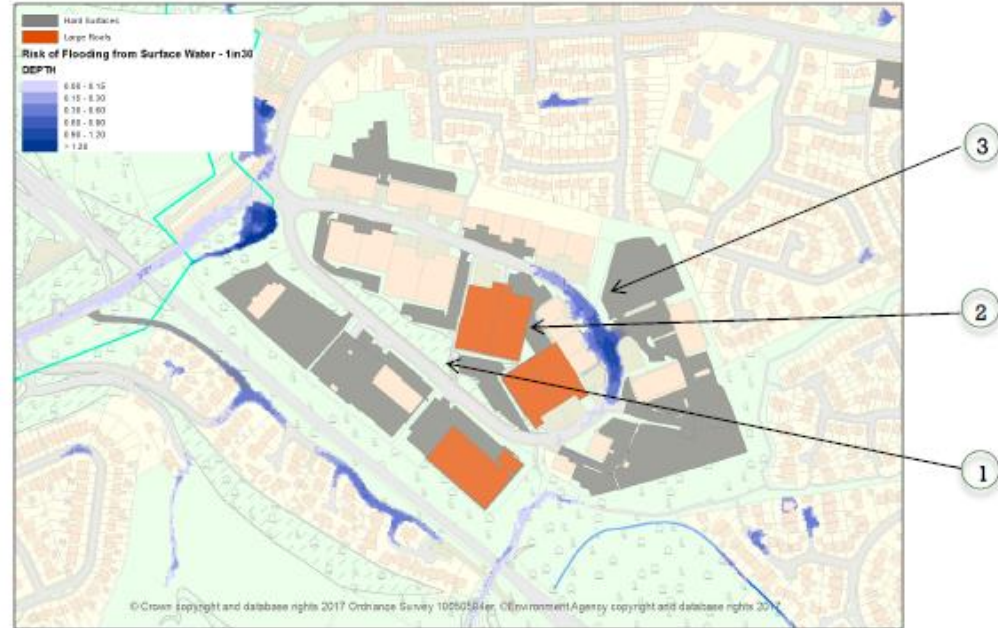


Monton Road, showing alignment of highway drains and existing woodland.



Looking up Monton Road, showing existing woodland.

An existing depression within the woodland presents an ideal opportunity to detain water from the highway, reducing the volume reaching the sewer. There is no obvious way to direct water, once slowed and cleaned, from here into the river or sewer network, so the scheme would rely on infiltration and uptake by trees. It isn't clear who owns the woodland at present.



Europa Way, Kearsley, showing flood risk, detention opportunity (1) large roofs (2) and large surface car park (3).



In summary...

- Opportunities for delivery will remain important.
- We will always follow opportunity, but Important to have done the strategy work:
 - to understand how to communicate the benefits,
 - develop trust with partners, and
 - to show that we are a credible, evidence-based organisation.



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GROWING MORE TREES
FOR GREATER MANCHESTER

Heritage Trees

A four year project to celebrate, record and protect our local tree heritage.











What Heritage Trees has achieved so far...

The Heritage Trees programme is creating a detailed picture of what trees are important and why in Greater Manchester

- 252 public events and workshops have been held
- 108 training sessions involving 948 people learning new skills
- 1376 volunteers have been involved in a range of activities from orchard maintenance to planting trees
- 3187 heritage tree stories have been recorded



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Green Streets From Grey to Green

GREEN STREETS®



The Origins

Tree People – Los Angeles

- Founded in 1973
- Over 2 million trees have been planted
- Direct action through community participation
- In 1990 – he Organized 3,000 volunteers to plant nearly 400 trees along the Martin Luther King Boulevard in one day.



What is Green Streets

The aim of Green Streets is to address environmental inequity by delivering Green Infrastructure in urban locations currently bereft of greenery.

What does a Green Streets project look like;

- street trees
- green 'living walls'
- defensible space
- 'green' car parks
- bespoke planters / window boxes



Street Trees

GROWING MORE TREES
FOR GREATER MANCHESTER



Street Trees



Street Trees



Street Trees

GROWING MORE TREES
FOR GREATER MANCHESTER



Street Trees

GROWING MORE TREES
FOR GREATER MANCHESTER



Street Trees

GROWING MORE TREES
FOR GREATER MANCHESTER



Street Trees



Dear Resident,

Re: Free Street Trees on XXXXXX Avenue

XX/XX/17

Local residents with the support of City of Trees are working to secure funding to plant ornamental trees on your street. The pavement outside of your house has been identified as a suitable location for a street tree.

Street trees are normally planted at the front of the pavement next to the road, **on the partition line between houses**. However, all street tree locations are subject to technical restraints – such as street furniture, e.g. lampposts, telegraph poles etc. and also underground service cables and pipes. **Planting trees on the partition line will not prevent you from parking your car outside of your house.**

The types of trees planted would be of an ornamental variety, specifically selected because they:

1. Do not grow very tall or wide
2. Do not have aggressive root systems
3. Are tolerant of pollution
4. Do not produce large fruit or sap which drips onto cars

Ornamental trees produce delicate spring blossoms, have beautiful green summer crowns and their leaves undergo a beautiful change of colour during the autumn. They brighten up the street and provide habitats for birds and other wildlife. Trees help clean the environment by filtering out toxic gases / dust particles in the air and they also play a vital part in managing today's changing climate. Furthermore an attractive green street can help nurture a sense of pride for the local community and may even help to increase property values.

It is important that residents help with minor maintenance requirements such as watering the trees in the hot dry weather (especially in the first year when the tree is at its most fragile). The larger maintenance requirements, such as pruning, would be the responsibility of XXXXXX Council.

If you are in support of the scheme and we are successful in our bid to secure funding to deliver it, we will be in touch with you again so that you can choose your own tree species and to ensure that you are happy with the planned location of the street tree outside of your property.

IT IS IMPORTANT FOR US TO KNOW WHETHER YOU SUPPORT THE SCHEME, OR NOT. SO PLEASE FILL IN THE ENCLOSED FORM

PLEASE RETURN THE ATTACHED FORM TO NUMBER XX XXXXXXX AVENUE BY XXXXX XXTH XXXX. Alternatively you can post your form to the address above, or respond by calling Kevin Wigley on 0161 872 1660, or email: kevin@cityoftrees.org.uk. If you have any questions please do not hesitate to contact me on the above number.

Yours faithfully,

Kevin Wigley
Green Streets Project Officer

GREEN STREETS

Street Trees

PROPOSED TREE PLANTING SCHEME RESPONSE FORM

**Please complete this form and return to
number XX XXXXX AVENUE by
XXXXXXXXXX 2017.**
You can also respond by phone (0161 872 1660) or email
kevin@cityoftrees.org.uk

Please circle

I the undersigned support the scheme and would like a tree planted on the pavement outside of my house (<i>subject to street furniture and underground services</i>)	YES / NO
I the undersigned would be prepared to water my tree in the summer months	YES / NO

Please tick

I am the property owner

The property is owned by a Housing Association
Please state which Housing Association.....

The property is privately rented
(If this is the case then you must get your landlord's permission to request a street tree outside of the property. If you would like us to do this on your behalf, please call Green Streets Manchester on 0161 872 1660 to arrange.)

Print Name

Signature

Address

Phone number/E-MAIL (optional)

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GREEN STREETS

Street Trees

Tree choice form



Residents on your street with the support of Red Rose Forest have been successful in securing funding to plant street trees along the pavement. You may recall consenting to having a tree planted outside your house, and now we would like to give you the opportunity to choose your tree.

The white 'T' on the pavement outside of your house indicates where the tree will be planted. If you are **not** happy with this location, you **must** contact Kevin Wigley at the Red Rose Forest on 0161 872 1660 by **FRIDAY 11th FEBRUARY 2011**. The trees will be planted during February or March 2011.

If you are sharing a tree with your neighbour, please consult with them so that you are able to select a tree that meets both your requirements. **We cannot guarantee you will get your chosen trees, but we will do our best to meet your request.**

Please indicate your first three preferred choices from the list overleaf:

1st Choice.....

2nd Choice.....

3rd Choice.....

Print Name.....

Address.....

Please return this form to no. **23 CHATBURN ROAD** by **FRIDAY 11th FEBRUARY 2011**. If you do not return the form by this date then we will choose an appropriate species on your behalf.

Street Trees

GROWING MORE TREES
FOR GREATER MANCHESTER

Tree Choices

The Cherry (*Cunus gandoa*) is a small tree that becomes smothered in pale pink blossom by March and into early April. The leaves turn bronze-red in autumn and the cherries bark provides lots of winter interest.



Swedish Whitebeam (*Sorbus intermedia brouwers*) is a small to medium sized tree with a cone shaped canopy. It has dark green leaves with striking silver undersides. This is a tough tree that produces beautiful white flowers in May.



The SweetGum Tree (*Liquidambar styraciflua* Streetwise) This is one of the finest trees for Autumn colour. It is ideal for street tree planting on account of its tight, narrow canopy. It has attractive corky bark but it is at its magnificent best in autumn when its maple like leaves explode with crimson and gold.



The Pear (*Pyrus calleryana Chanticleer*) is a medium sized non-fruiting tree that has profuse white flowers showing from March and orange/red leaves in autumn that can persist into the winter. Tolerating the harshest of conditions this is a real 'tree for all seasons'.



Maple tree - (*Acer campestre Elsrijk*) - has a regular, oval canopy and is a medium sized tree whose foliage turns a magnificent clear yellow in Autumn. A great tree for street tree planting because of its durability.



Green Walls



Green Walls



Green Walls



Defensible Space



Green Roofs



Green Car Park

GROWING MORE TREES
FOR GREATER MANCHESTER



Bespoke Planters



Timetable

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9.35am - 10.00am - City of Trees a new movement for Greater Manchester - Pete Stringer

10.00am - 10.20am - An evidence based mapping approach to tree planting - Bryan Cosgrove

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GROWING MORE TREES
FOR GREATER MANCHESTER

Exploring your local tree heritage

Ways to get communities engaged and sharing what they know and care about.





Spotlands Primary





GROWING MORE TREES
FOR GREATER MANCHESTER

Sale West Engagement



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What Have Trees ever Done for Us?

Demonstration and Research Projects





What is i-trees?

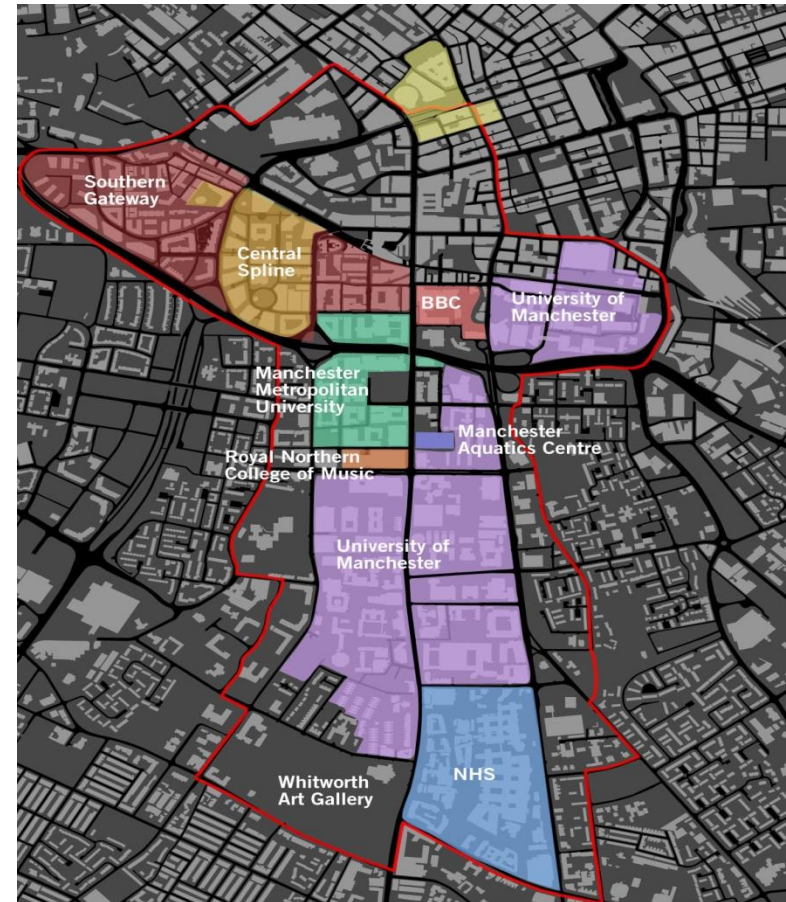
- A Climate Change Research Experiment in partnership with the University of Manchester.
- An experimental project that will demonstrate the importance of trees / Green Infrastructure on:
 - Moderating temperature
 - Reducing surface water runoff

Where?

Manchester city centre

At 5 locations in and around
Oxford Road;

- Manchester Academy
- Whitworth Park – 4 plots
- Dilworth Street
- Grosvenor Square
- Manchester Science Park – 2 plots

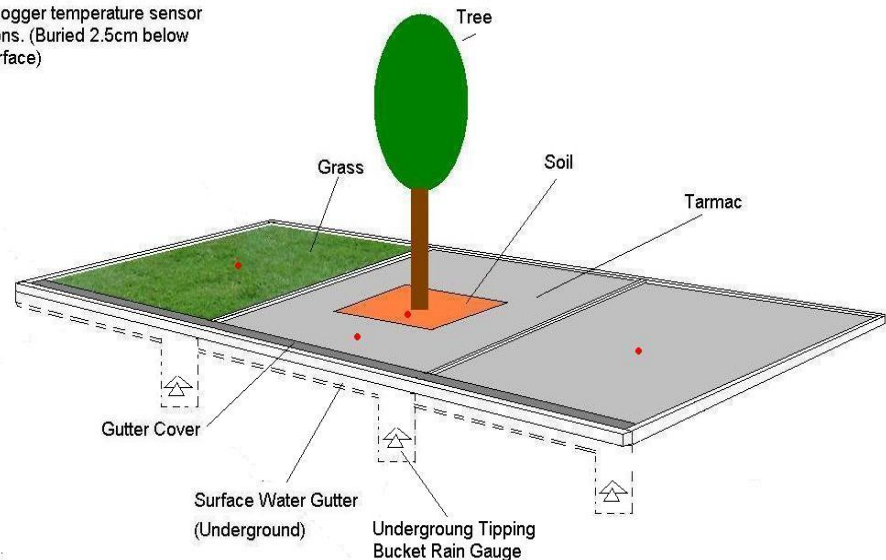


What is an i-tree?

An Experimental Monitoring Plot
which contains 3 x 3 sq. squares;

- One grass
- One with a tree surrounded by asphalt
- One with asphalt

- Data Logger temperature sensor positions. (Buried 2.5cm below the surface)



Grosvenor Square Plot



What Was Measured and How?

Surface Temperature

This was measured with temperature probes that were placed directly into the ground and a hand held infrared thermometer.

This will tell us which of the surfaces absorbs the most and least heat.



What Was Measured and How?

Air Temperature

This was measured with a globe thermometer positioned at 1.1m above the ground.

This will tell us which of the three different plot types affects air temperature the most.

This is important because during the day this will affect 'human comfort'.

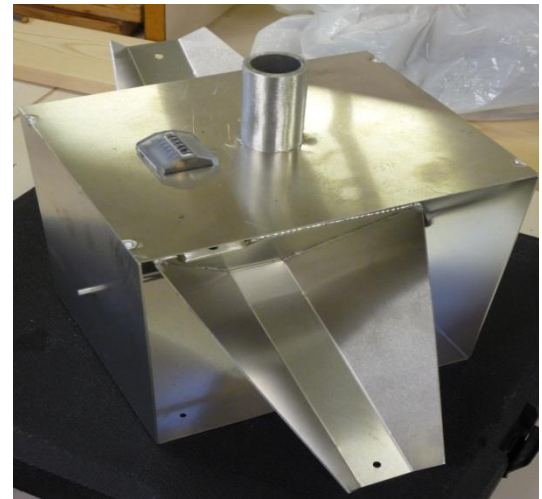


What Was Measured and How?

Surface Water Runoff

Any rain that runs off the surface of the three squares flowed into a gutter and down into a collecting bucket in a manhole.

As the buckets filled up they tipped over & this was recorded by a magnetic counter. The highest and least number of buckets tipped will tell us which of the different surfaces are the best and worst at stopping surface water runoff.



Surface Temperature Results

Asphalt Plots

Peak temperature – 48C

Tree Plot

Where asphalt was not shaded peak temperature also 48C.
During period of shade temperature was 40C

Grass Plot

Peak temperature - 23C

Air Temperature

It was found that the different surfaces did little to affect air temperature, however, the shade from the tree proved to be significant.

Tree shade was able to reduce air temperature by as much as 11C

Surface water results

Asphalt Plots

62% runoff in winter, 53% in summer

Tree Plot

26% runoff in winter, 20% in summer

Grass Plot

Only 1% of rainfall diverted as runoff

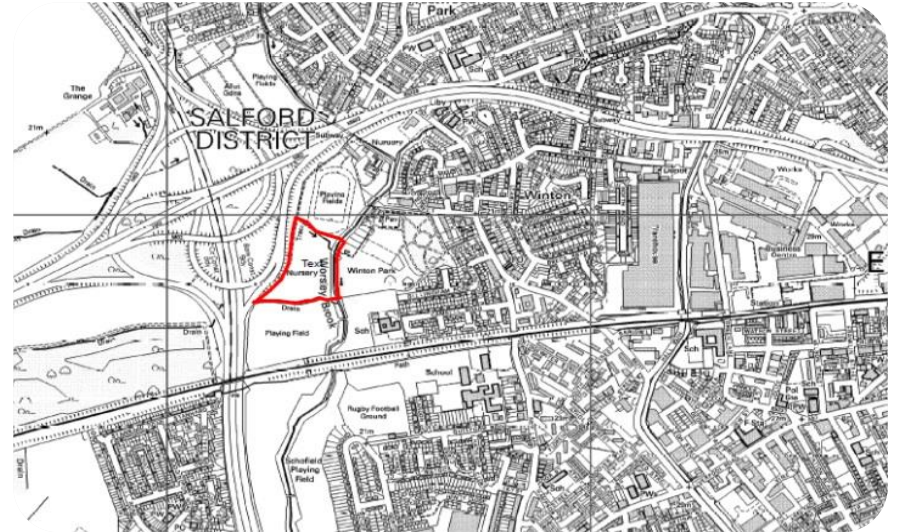
Cleavleys Wet Woodland

Underlying Problem

The site, a former tree nursery is located between the M60/M62 interchange and Worsley brook

The southern tributary drains land adjacent to a closed landfill site before passing beneath the M60, from which it receives runoff.

Environment Agency monitoring of this tributary, conducted in early 2014, identified contamination with ammonia, suspended solids, and poly-aromatic hydrocarbons



Project Aims

To achieve “Good” status, under the River Basin Management Plan therefore demonstrating the benefits of green infrastructure for meeting WFD objectives.

Creation of a Wet Woodland – a priority BAP habitat

The woodland is being monitored by the University of Salford to assess water quality and biodiversity impacts.

What Happened

- A package of channel renaturalisation,
- planting of wet woodland species,
- public engagement,
- improved pedestrian access.

Up stream a clay / natural dam was constructed to divert the tributary through the woodland.

Material excavated from the existing channel embankment was used to create a bund, to ensure that water flows re-entered the original channel and did not extend beyond the proposed wet woodland area.

The Dam



Excavated Area Before Receiving Diverted Water



Excavated Area After



Howard Street SUDS Project



Monitoring

Monitoring

1. Water Quantity

- Inflow vs outflow
- Water attenuation, peak discharges

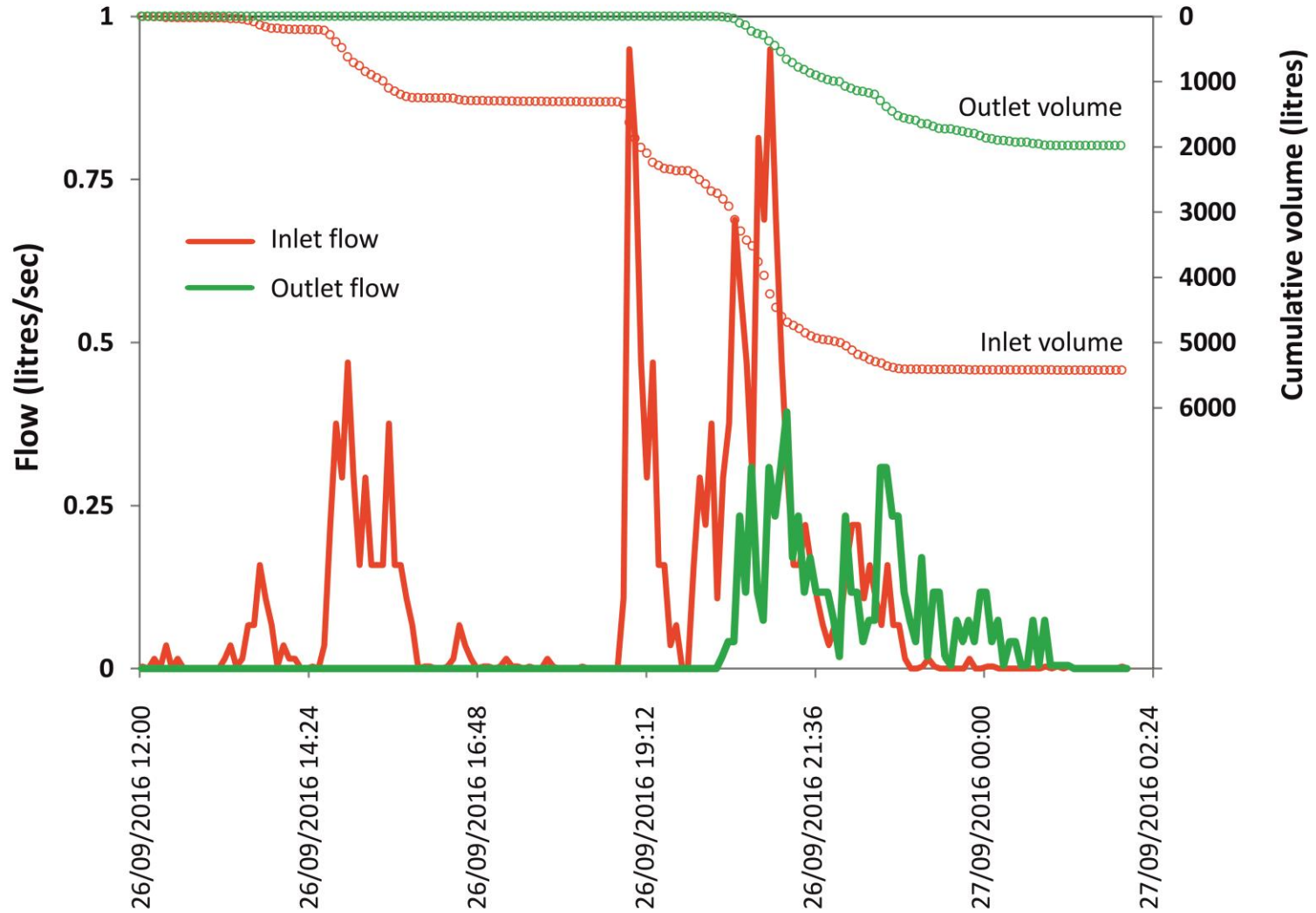


2. Water Quality

- Pollutants (metals, salt and *hydrocarbons*)
- Nutrients (phosphorus, nitrogen & carbon)
- Suspended solids



Results



Results

Hydrology results for the period May-Sept 2016*

- Average peak flow reduction by the system was 70%.
- Average volume reduction during storm events was 60%.
- Average delay of storm water peak flow was 90 minutes.

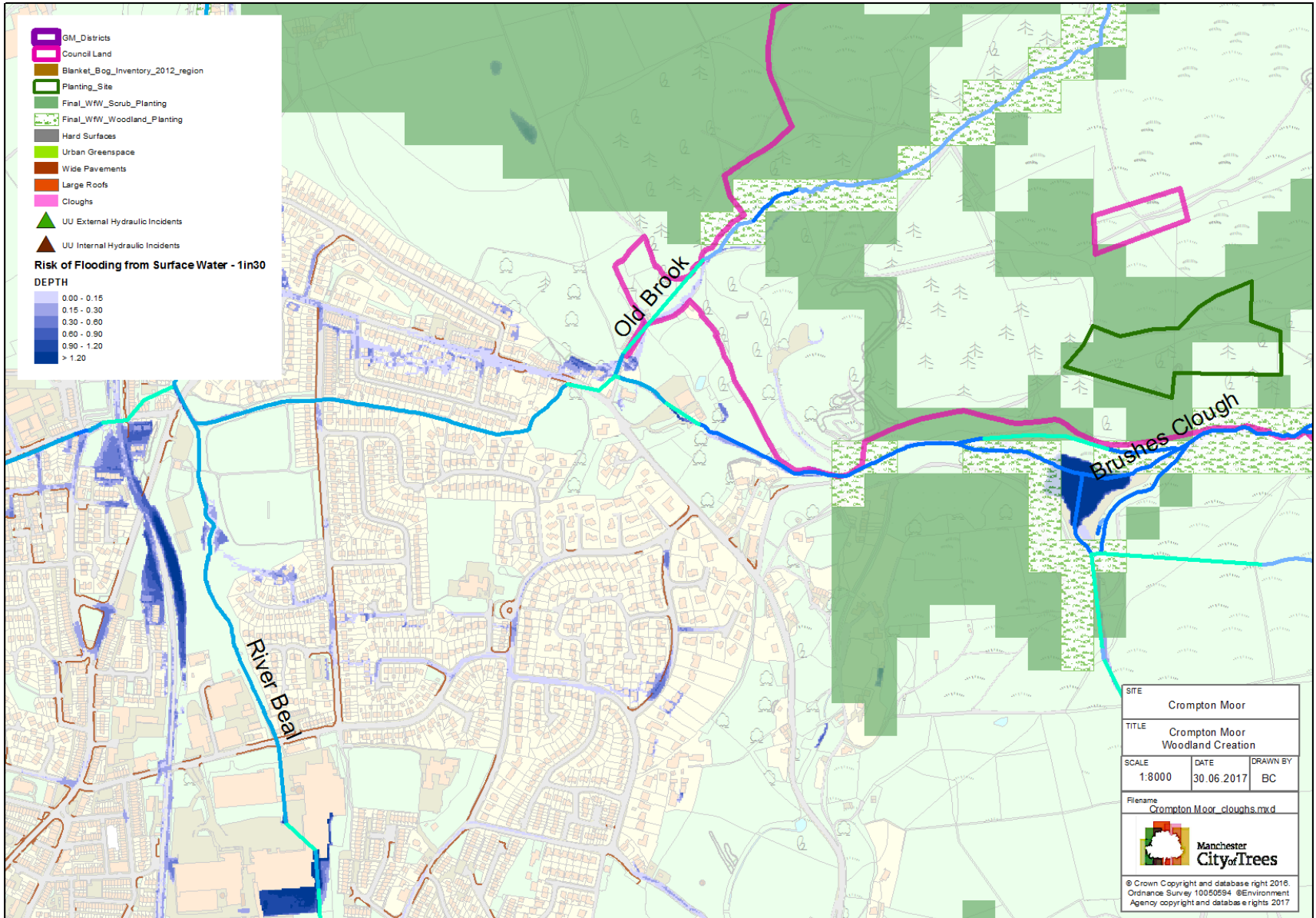
*These are provisional please do not circulate

Crompton Moor



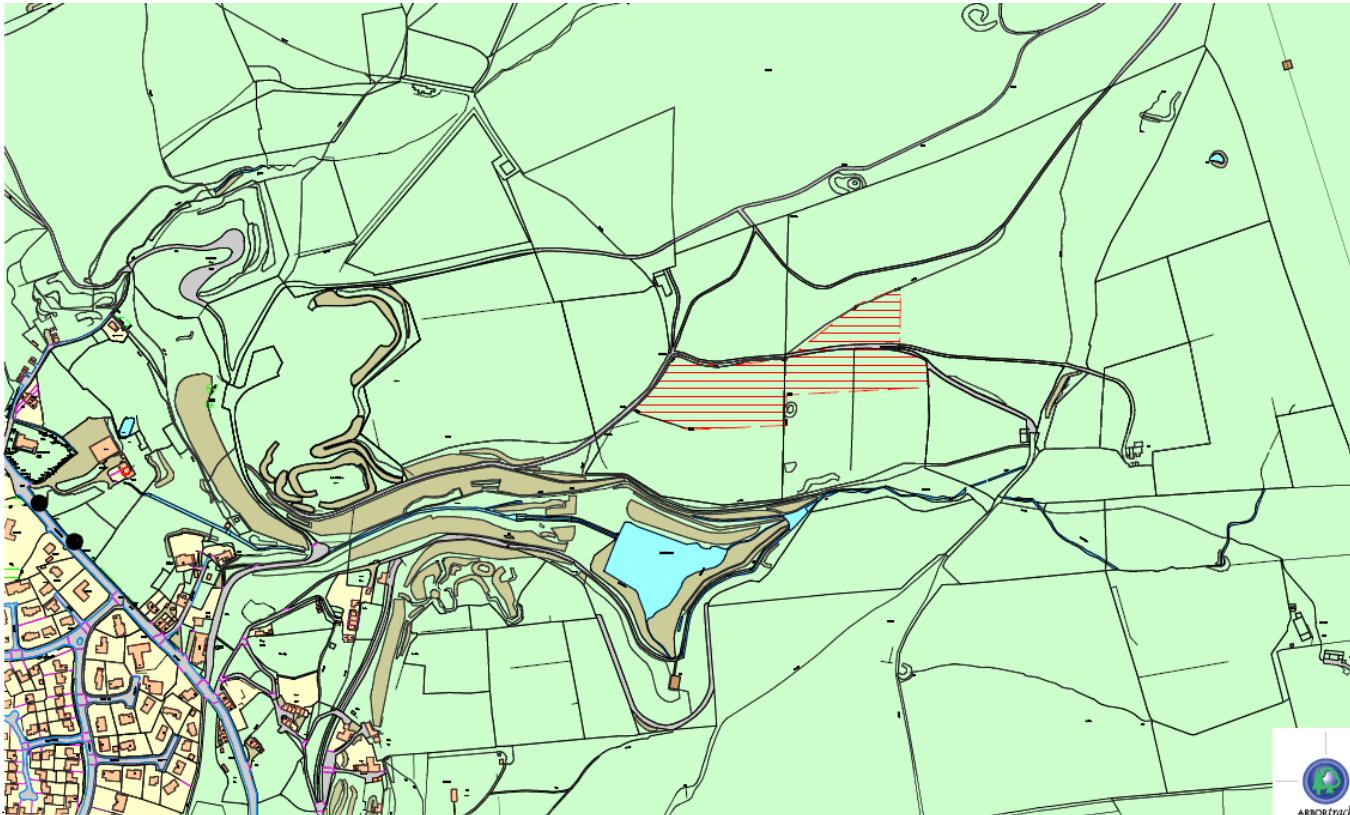
Locations at Risk of Flooding

GR
FC



Proposal

Creation of new experimental woodland plots



3 monitoring plots were constructed on 3 different hillslopes with different vegetation cover.

Plot 1 – pine plantation on south west of the moor,

Plot 2 - heath at the top of the moor,

Plot 3 - perennial grass on the south side of the moor in the proposed area for the woodland creation



Figure 3: Location of all 3 runoff plots on the moor



Figure 4: Photo of the forest understory and density of ferns surrounding plot 1 (Left). View of the closed canopy of the pine plantation above plot 1 (Right).



Figure 5: Plot 2 situated within the slope cover with heath (left). Closer view of the soil and heath that plot 2 is situated within (Right).



Figure 6: The view of the vegetation cover directly ahead of the plot on site 3 (Left). The view at the top of the slope looking towards plot 3 (Right)

Baseline Monitoring

- Each plot contained 1 metre of PVC guttering dug into a trench within the hillslope with the guttering inclined towards a sample bottle for water collection.
- Aluminium flashing was placed over the edge of the guttering and then inserted below the soil's surface to ensure if surface water was present there would be a smooth transition of water into the PVC guttering.
- Each of the plots were covered by pond lining pinned down at the corners which protected the plots from any direct rainfall to ensure that any water collected was a direct result from surface runoff.
- A rain gauge was placed on top of the moor in between all three plots to establish amount of rainfall for the time period.

Monitoring Equipment



Figure 7: Example of the plots 2 (Left) and plot 3 (Right) constructed within the field with the sample bottle and aluminium flashing present.

Woodland Plot Proposals

A range of small planting plots will be created in 2018:

- Different species mixes
- Different ground preparations
 1. Maintain existing ground conditions
 2. Mounding
 3. Ripped / shallow plough

The different plots will be monitored to assess surface water runoff to help determine optimum plot design for managing runoff.

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Foraging events - an ice breaker for community engagement



Foraging events

- Mocktails & cocktails
- Tea infusions
- [Fungi](#)
- Forage & Fire
- [Forage & Feast](#)



FORAGE & FEAST: ROWAN
OUR RECIPE GUIDES SHOW YOU HOW TO CREATE FANTASTIC FORAGED FEASTS
OUT OF NATURALLY-FOUND INGREDIENTS.

ROWAN (SORBUS AUCUPARIA)

Rowan simply means 'red-one' and is often seen as a symbol of protection. The only part of the tree you would want to use is the very bitter berries. Cooking reduces the bitterness and their best use for the humble forager is a rowan jelly. Rowan is often overlooked by the forager, but it is easy to find and easy to harvest.

Habitat: A tree of woodland edges, especially in higher areas, rowan is often planted as an ornamental in parks and gardens.

Distribution: Common throughout northern Europe, it is often planted in housing estates and parks as an ornamental tree. In the wild, rowan is a tree of the uplands and is often seen highest up the mountains, it is said no other tree will grow higher in the UK. In Greater Manchester it is a very common tree.

Description: A native tree to the UK, it is relatively compact and small compared to other trees like oak and beech. It produces creamy coloured flowers from late spring and these develop into large bunches of bright orange/red berries from late summer onwards. The leaves are similar to that of elder with pinnate leaflets in sets of 5-9 with thin teeth on the edges. They are much smaller than those of elder and the leaves also do not smell when crushed.

Edible bits & uses: The large red bunches of berries which appear from late summer can be collected easily and used to make jellies (too seedy for jam), syrups, flavoured vinegars and liqueurs.



Foraging feedback

I am going to pay much closer attention to our local trees!

It's inspired me to find out more and to look out for items on walks around Manchester!

The amount of ingredients available to us in Manchester is amazing!

Trees and hedgerows are an underused resources.

We can look for edibles in more built up areas and cities.

I respect trees and woods even more now.



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GROWING MORE TREES
FOR GREATER MANCHESTER

By the People, for the People, of the People

A whole community approach to urban forestry



Issues for Urban Forestry

- Dwindling resources for maintenance and management of existing woodland resources
- Mounting pressure on LAs to identify land for house-building
- Under-valued woodlands under threat from development
- Challenge:
 - Bring woods into active management
 - Minimise reliance on LAs
 - Minimise input of staff time



City of Trees Approach

- Important to build durable partnerships with the community and local business.
- Range of opportunities to engage corporate partners.
- Citizen Forester –monthly volunteering events in different locations around GM. Returnees from Unis and a number of corporates that return to us. We call these our citizen forester events, and we give our volunteers small goodie bags and badges...CF is how we term all our volunteers.
- Long-term volunteers – Interns, anything from 1 day each week to full time, help us run our community events and help maintain the season.
- Stats – 5768 hours donated since we launched



Funding

Range of small pots:

- Local authority, neighbourhood improvement fund
- WCHG, social housing provider, community
- Stewart Milne, property developer
- Tesco, Bags of Help



Partnerships

- MCC – support with small neighbourhood grants and in-kind tree work
- WCHG – in-kind staff support and help engaging community
- Community volunteers
- School
- Back on track and Styal Prison



Activities

- Tree work
- Indoor
- Woodland litter, bra
- Footpa
- Installi
- Outdoo



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Outcomes

- Entered into Northwest In-Bloom, in-line for an award
- School now excited to run autumn sessions outside
- People using bins, litter decreased
- Wood to be used for local community event in the autumn
- Able to use evidence to secure second attempt at HLF – with community support
- Developed a model that's directly transferable to other woodlands





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My Tree Rocks Challenge

GROWING MORE TREES
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