RAIN GARDEN UK

PRACTICAL AND ONLINE TRAINING

How big?

What size should my rain garden be

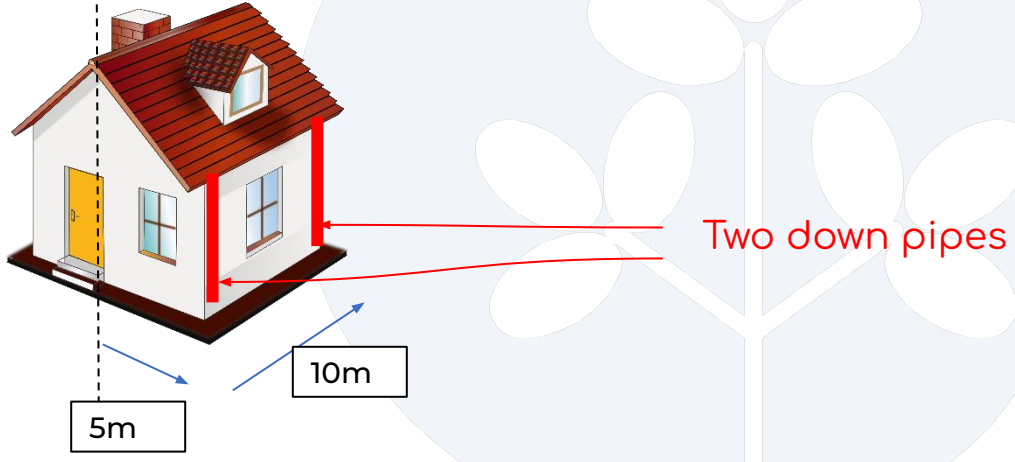
How big is my roof?

Length x width = area m^2

5m x 10m = $50m^2$

There are two downpipes so a planter at
The end of each downpipe will get half

So, each planter is fed by $25m^2$ roof area

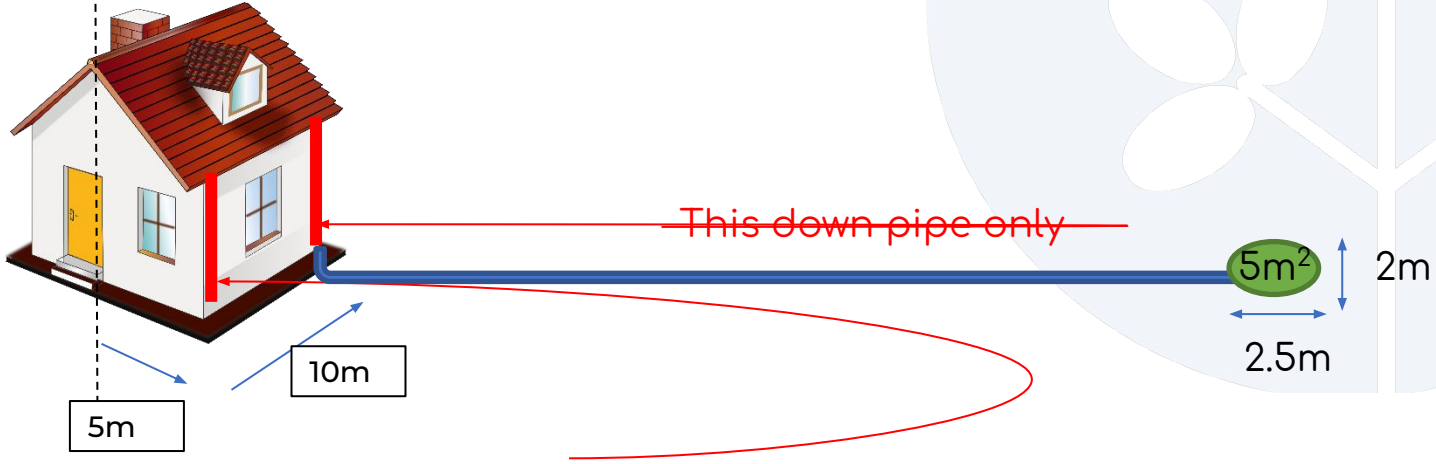


Rain garden size method 1

I want an easy 'rule of thumb'

Rain garden fed by 25m^2 roof area

Area of rain garden = 25m^2 x 20% = 5m^2



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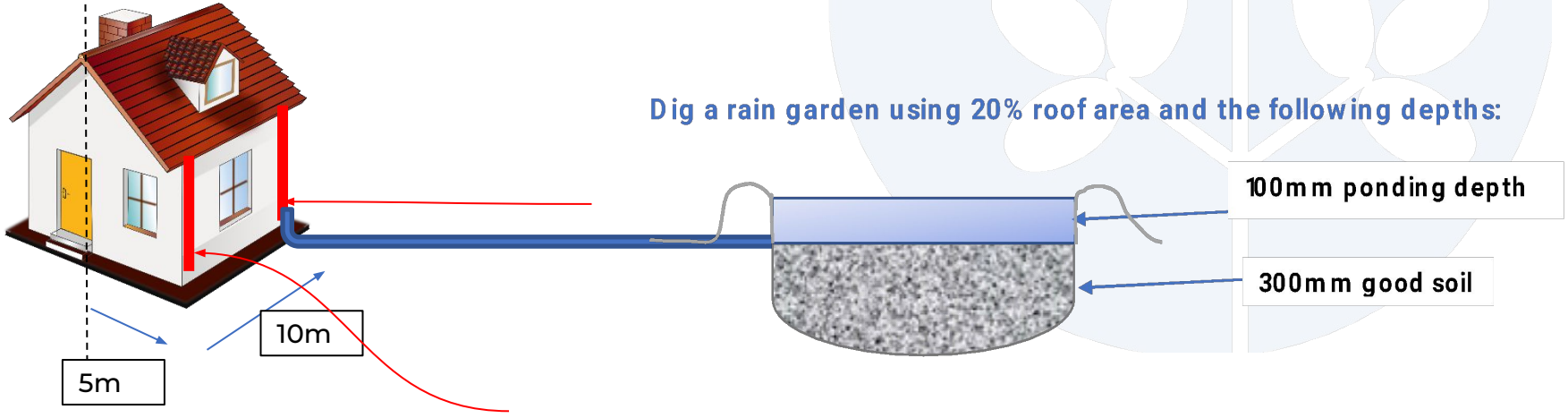

Rain garden size method 2

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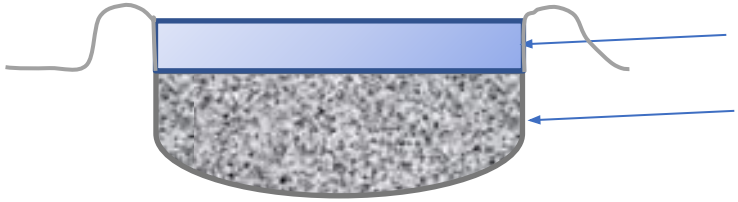
'I know my infiltration rate'

Infiltration Rate per hour	Recommendation	Rain garden area as a % of catchment area	Multiplier: Catchment Area in m² x Multiplier = Rain garden area in m²
Less than 15mm	Unsuitable for a DIY rain garden.	40% and improved drainage	0.4
15mm - 25mm	Low infiltration for a rain garden. Is more area or depth possible? Plan sufficient overflow.	30%	0.3
25mm - 50mm	Adequate infiltration for a rain garden. Plan sufficient overflow.	20%	0.2
More than 50mm	High infiltration for a rain garden. Fewer moisture-loving and more drought tolerant plants/deeper mulch/smaller rain garden.	10%	0.1



100mm ponding depth

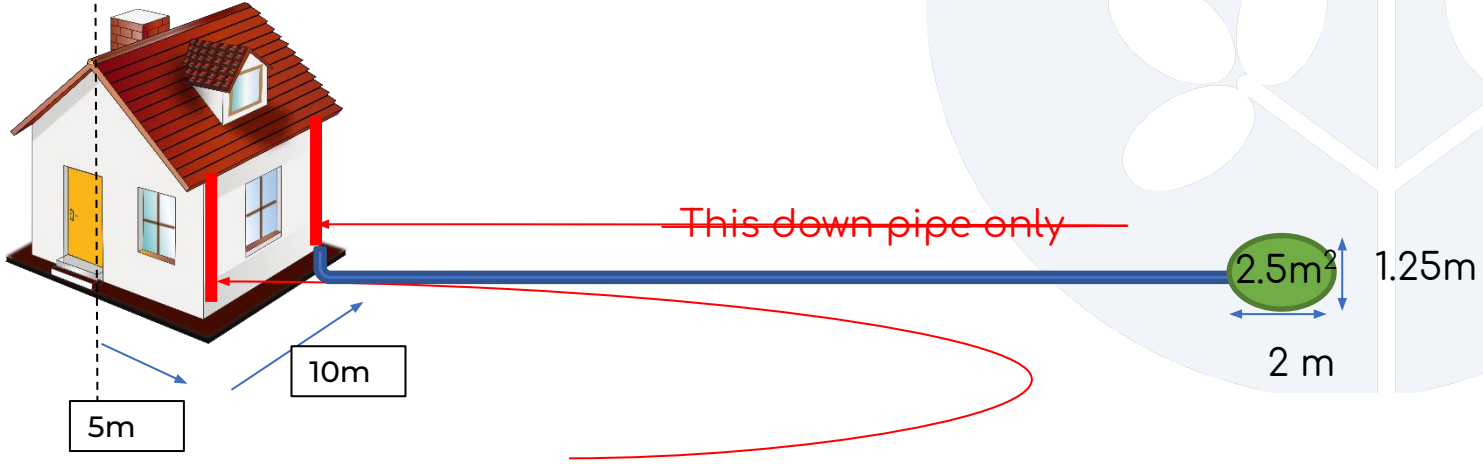
300mm good soil

Rain garden size method 2

I know my infiltration rate is more than 50mm/hr

Rain garden fed by 25m^2 roof area

Area of rain garden with good infiltration= 25m^2 x 10% = 2.5m^2

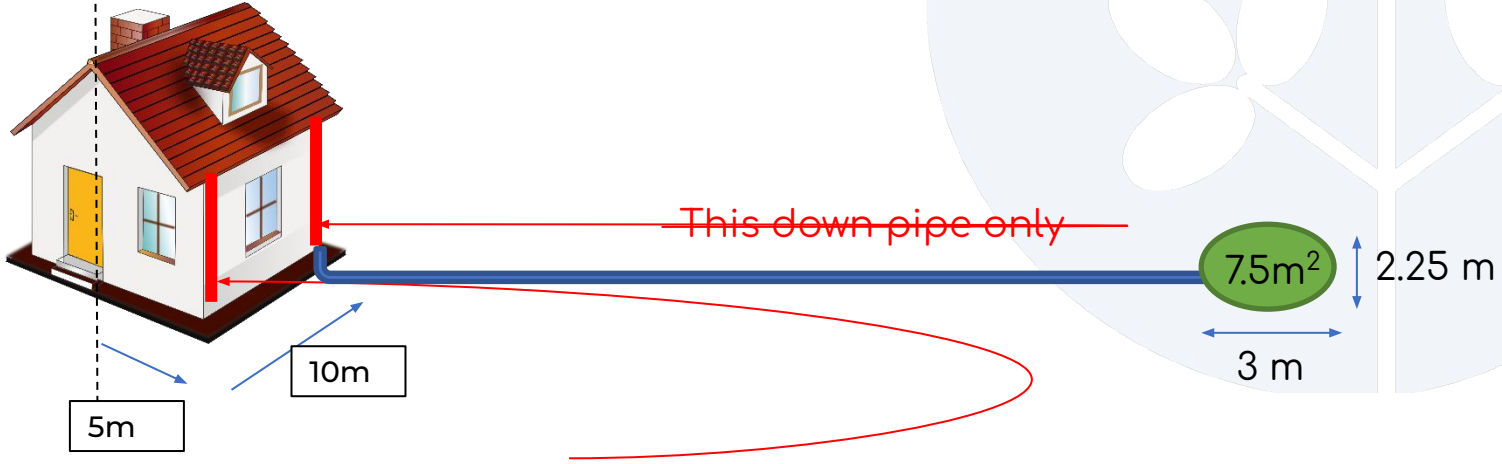


Rain garden size method 2

I know my infiltration rate is between 15mm and 25mm/hr

Rain garden fed by 25m^2 roof area

Area of rain garden with low infiltration= 25m^2 x 30% = 7.5m^2



Rain garden size method 3

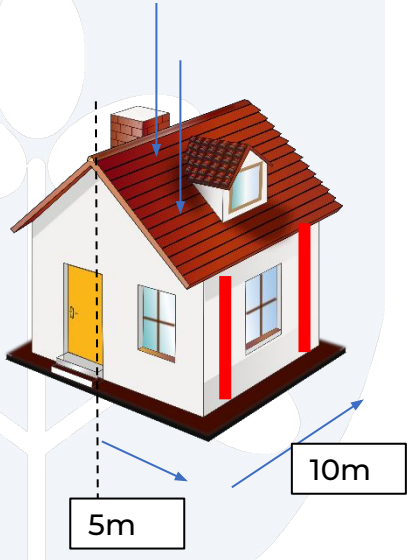
RAIN GARDEN UK
PRACTICAL AND ONLINE TRAINING

I want to know how much rain will come off my roof in different storms and know what my rain garden can hold.

Most rainfall events in Marlborough are just 5mm of rain.

Let's look to see how our rain garden using the rule of thumb would cope with a 30mm rain event. We can expect that to happen a few times each year.

Roof area (m2)	Big storm rainfall (mm)	Volume (litres)
25	30	750



Rain garden size method 3

I want to know how much rain will come off my roof in different storms and know what my rain garden can hold.

Roof area (m2)	Big storm (mm)	Volume rain (litres)
25	30	750

Calculate A

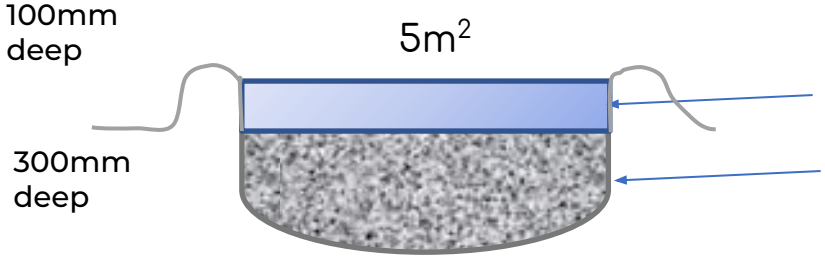
$5m^2$ x 100mm x 100% = 500 litres (space for water between soil & top of berm)

Calculate B

$5m^2$ x 300mm= x 30% (0.3) = 450 litres (space for water in soil)

Add A + B to find how much water will fit in your garden

500 litres + 450 litres = **950** litres



A. Space between the soil and top of berm (100%)

B. Space in the gaps in the good soil (30%)