Wildlife Ponds & Wetlands

Creation, management & wildlife features



Photo Credit: Becca Bratt, WWT

Protecting **wildlife** where you live



Photo Credit: Finley Reynolds, WWT

Finley Reynolds
(He/They)
Natural Networks Officer

Worked at the Trust for:
2 years

Qualifications:
BSc Ecology (1st)
MSc Environmental Management

- Why are wetlands important?
- Types of wetland habitats
- How to create a wildlife pond/wetland
  - Shape & size
  - Liner or no liner?
  - Pond plants
- Enhancing existing wetlands
  - De silting
  - Vegetation management
  - Invasive species
- Q&A



Why are wetlands important?

- Wetlands are biodiverse habitats
- Wetlands remove pollution
- Wetland recycle nutrients
- Wetlands store carbon
- Wetlands reduce flooding risk
- Wetlands provide jobs, tourism & food



Photo Credit: Becca Bratt, WWT



Why are wetlands important?

Worcestershire Wildlife Trust

Ponds support 2/3 of all UK freshwater species

80% of UK ponds are in gardens (around 3 million)

Excellent habitat for:



Photo Credits Wendy Carter, WWT



Photo Credits Wendy Carter, WWT



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Photo Credits Steve Bloomfield, WWT



Photo Credits Wendy Carter, WWT

Why are wetlands important?

Wetlands are in decline & under threat

Since 1900, the UK has lost around 600,000 ponds!

- Lost due to agricultural practices
- Imbalanced by pesticides & chemicals
- Drying up due to climate change & mismanagement

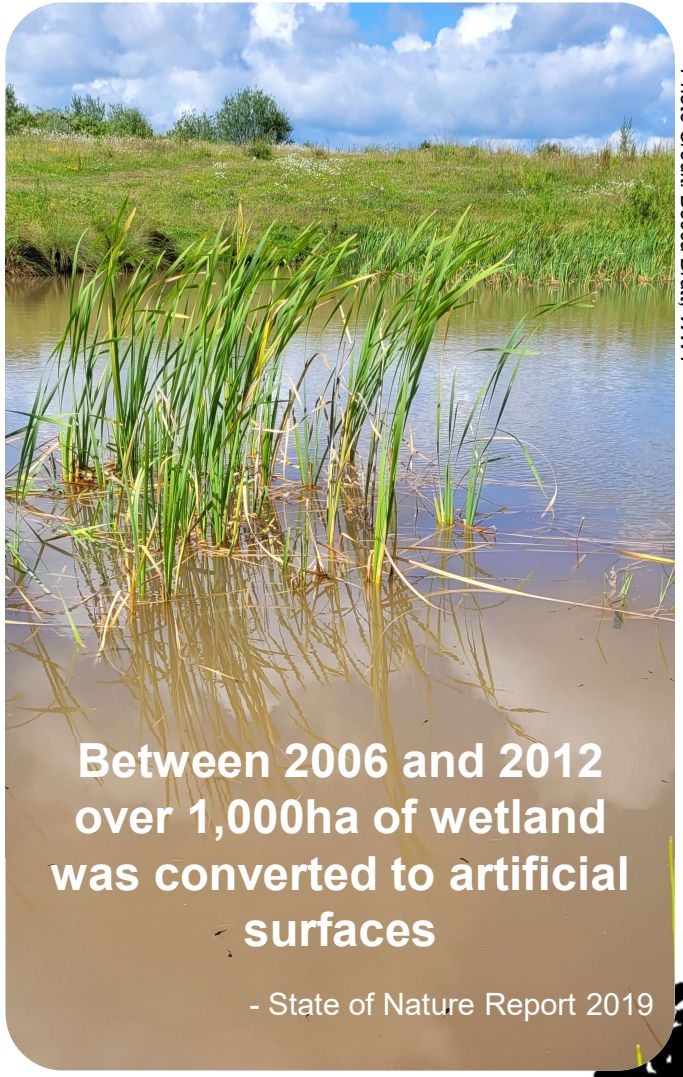


Photo Credit: Becca Bratt, WWT

Wetland Habitats

Worcestershire Wildlife Trust

Lake



Photo Credit: Finley Reynolds, WWT

Ditch



Photo Credit: Finley Reynolds, WWT

Wet grassland



Photo Credit: Finley Reynolds, WWT

Wet woodland



Photo Credit: A. Cormack

Pond



Photo Credit: Finley Reynolds, WWT

Marsh



Photo Credit: Jasmine Walters, WWT

- Bog
- Fen
- Swamp
- Mire

Scrape



Photo Credit: Jasmine Walters, WWT

Pond vs Scrape

Holds water for 4+ months of the year

$1m^2$ – 2ha

Usually still, freshwater habitats

(but can be brackish)

Seasonally hold water

Damp all year round

Less than 1m deep



Photo Credit: Finley Reynolds, WWT



Photo Credit: Jasmine Walters, WWT

Creating a pond

Worcestershire Wildlife Trust

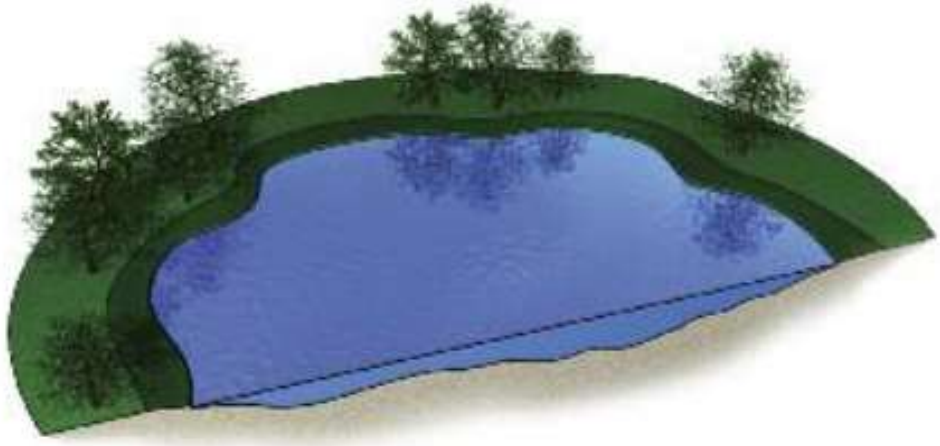
Photo Credit: Finley Reynolds, WWT



Creating a pond

Worcestershire Wildlife Trust

The only thing better than one pond…



Single pond

GOOD

… is two ponds!

Pond complex

BETTER

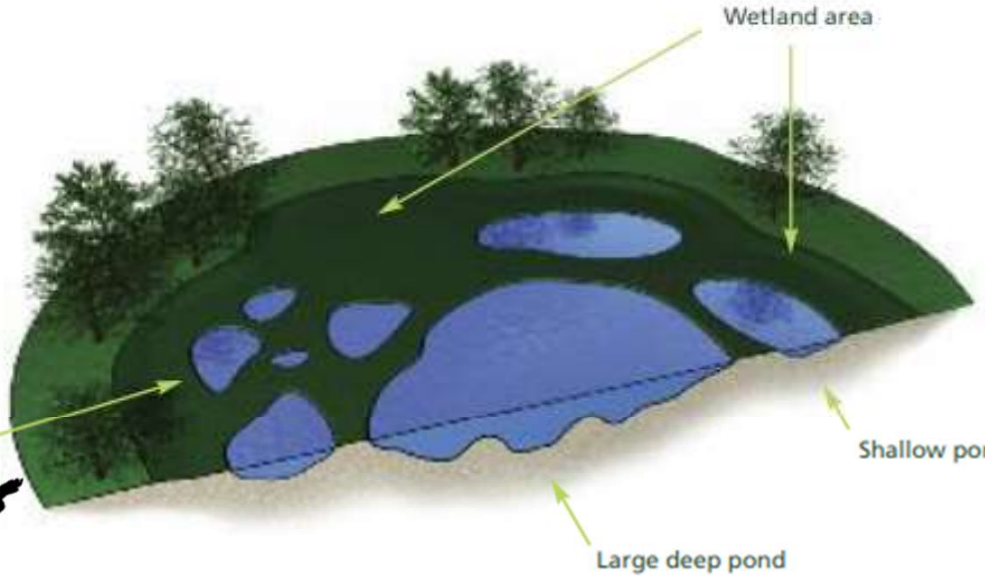
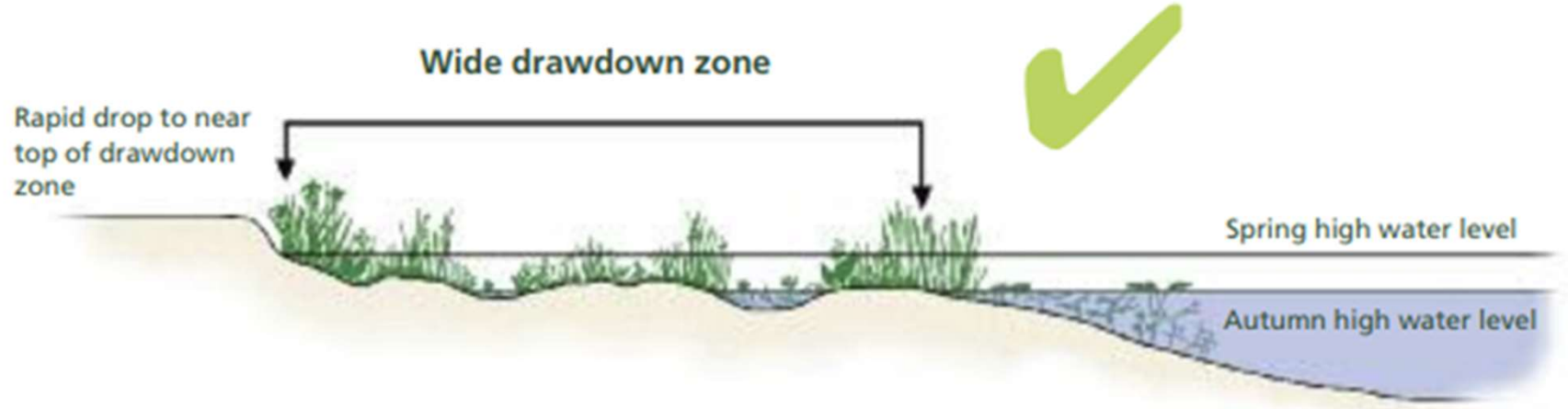


Diagram from Freshwater Habitats Trust

Creating a pond

Worcestershire Wildlife Trust

Shape & Size



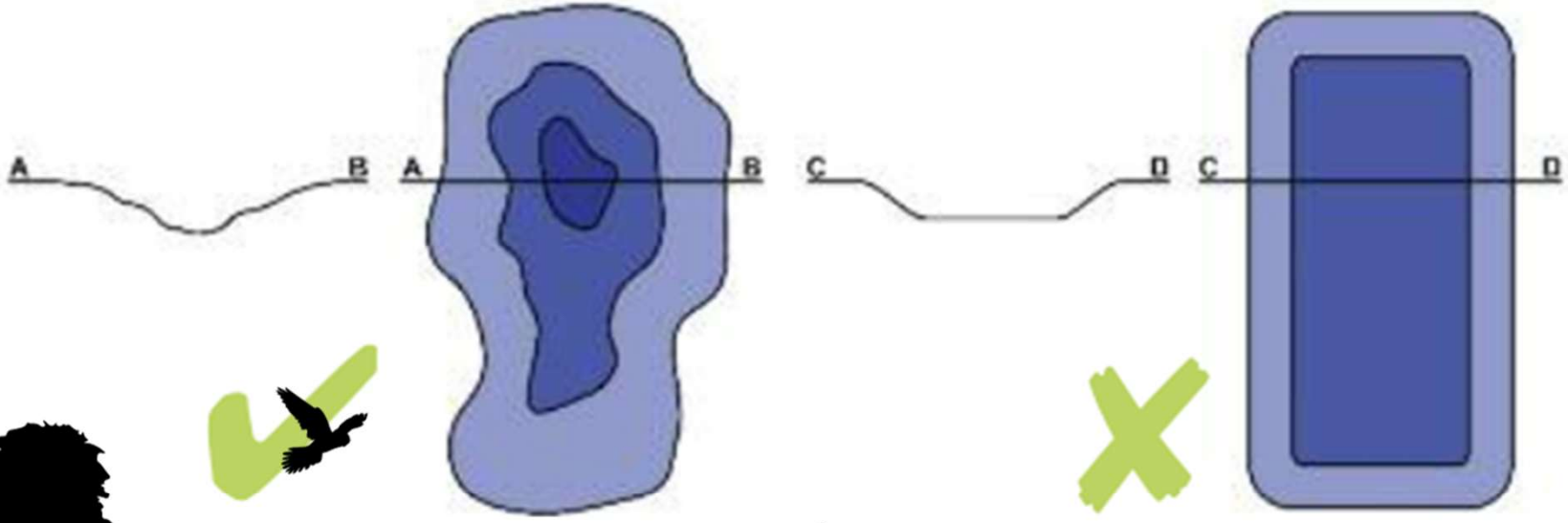


Diagram from Freshwater Habitats Trust

Top Tip

Use the spoil from digging the pond to create a bee/beetle bank

- South facing
- Lots of nesting habitat for solitary bees
- Can be planted up with native flowers



Photo Credit: Becca Bratt, WWT

Creating a pond

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Liner or no liner?

- Puddle clay
- Pond shells
- Butyl Rubber / PVC
- Bentonite powder
- Bentonite Clay Liner



Photo Credit: eBay.com



Photo Credit: Becca Bratt, WWT

Creating a pond

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Pond plants

Suitable species for wetland planting		
Water crowfoot/buttercup *Ranunculus aquatilis*	Submerged	Wetter
Bladderwort *Urticularia spp*		
Frogbit *Hydrocharis morsus-ranae*		
Broad-leaved pondweed *Potamogeton natans*		
Curled pondweed *Potamogeton crispus*		
Spiked water-milfoil *Myriophyllum spicatum*		
Hornwort *Ceratophyllym demersum*		
Fennel pondweed *Potamogeton pectinatus*		
Water starwort *Callitriche stagnalis*		
Rigid hornwort *Certaphyllum demersum*	Shallow water	
Frogbit *Hydrocharis morsus-ranae*		
Yellow iris *Iris pseudocorus*		
Marsh marigold *Caltha palustris*		
Lesser spearwort *Ranunculus flammula*		
Water crowfoot *Ranunculus aquatilis*		
Amphibious bistort *Persicaria amphibia*		
Water forget-me-not *Myosotis scorpioides*	Water edge	
Jointed rush *Juncus articulatus*		
Soft rush *Juncus effusus*		
Cyperus sedge *Carex pseudocyperus*		
Lesser pond sedge *Carex acutiformis*		
Water mint *Mentha aquatica*		
Purple loosestrife *Lyrthrum salicaria*		
Gypsywort *Lycopus europaeus*		
Meadowsweet *Filipendula ulmaria*		
Hemp agrimony *Agrimonia eupatoria*		
Marsh woundwort *Stachys palustris*	Marshy ground	Drier
Ragged robin *Lychnis flos-cuculi*		
Bugle *Ajuga reptans*		
St John's wort *Hypericum tetrapterum*		
Greater bird's-foot trefoil *Lotus pedunculatus*		
Common fleabane *Pulicaria dysenterica*		
Tufted hair-grass *Descampsia cespitosa*		
Cuckoo flower *Cardamine pratensis*		
Hairy sedge *Carex hirta*		
Cowslip *Primula veris*		

- Natural recolonization
- Seeding
- Plug plants



Photo Credit: Wendy Carter, WWT



Photo Credit: Becca Bratt, WWT



Photo Credit: Jasmine Walters, WWT



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Container ponds



Photo Credit: Jasmine Walters, WWT



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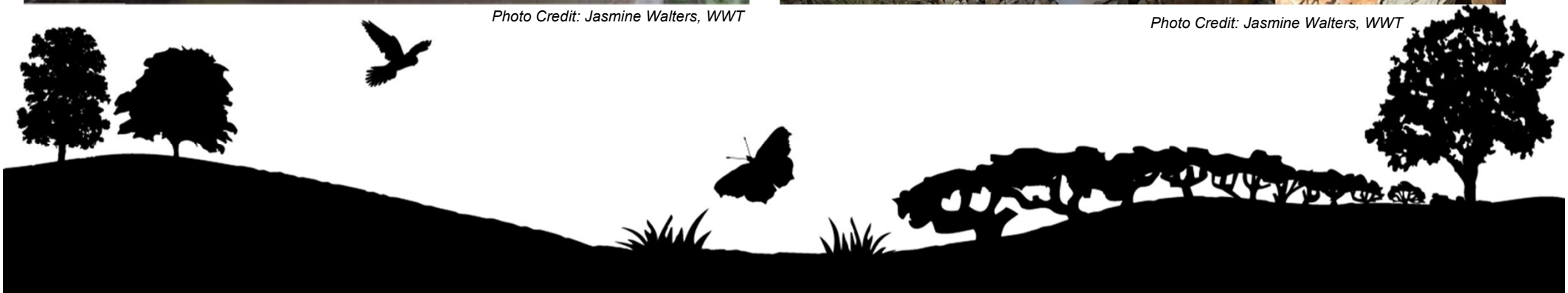

Creating a pond

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Let your pond fill up naturally with rainwater…

…then sit back & enjoy



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Pond Management

Photo Credit: Becca Bratt, WWT



Photo Credit: Becca Bratt, WWT

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Veg



Photo Credit: Finley Reynolds, WWT

Pond Management

Overhanging trees

- Coppice or pollard trees
- Let light into pond
- Do leave some shaded areas



Photo Credit: Finley Reynolds, WWT

Algae blooms

- Aerate water
- Barley straw



Pond Management

Desilting

- Clear up to 1/2 of silt
- Leave material on pond edge for 24 hours
- Best done: Nov-Jan



Photo Credit: Becca Bratt, WWT



Pond Management

Invasive species

Schedule 9 of the of the Wildlife and Countryside Act

- Himalayan balsam
- Japanese knotweed



Photo Credit: Finley Reynolds, WWT



Photo Credit: Wendy Carter, WWT



Pond Management

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Inva

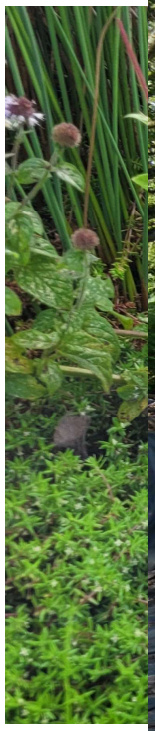

Photo Credit:



Photo Credit: Jasmine Walters, WWT

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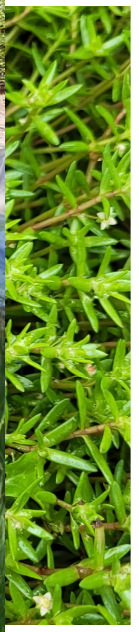


Pond Management

Problematic species

- Bull rush



Photo Credit: Becca Bratt, WWT

Pond Management

Adding new wildlife features

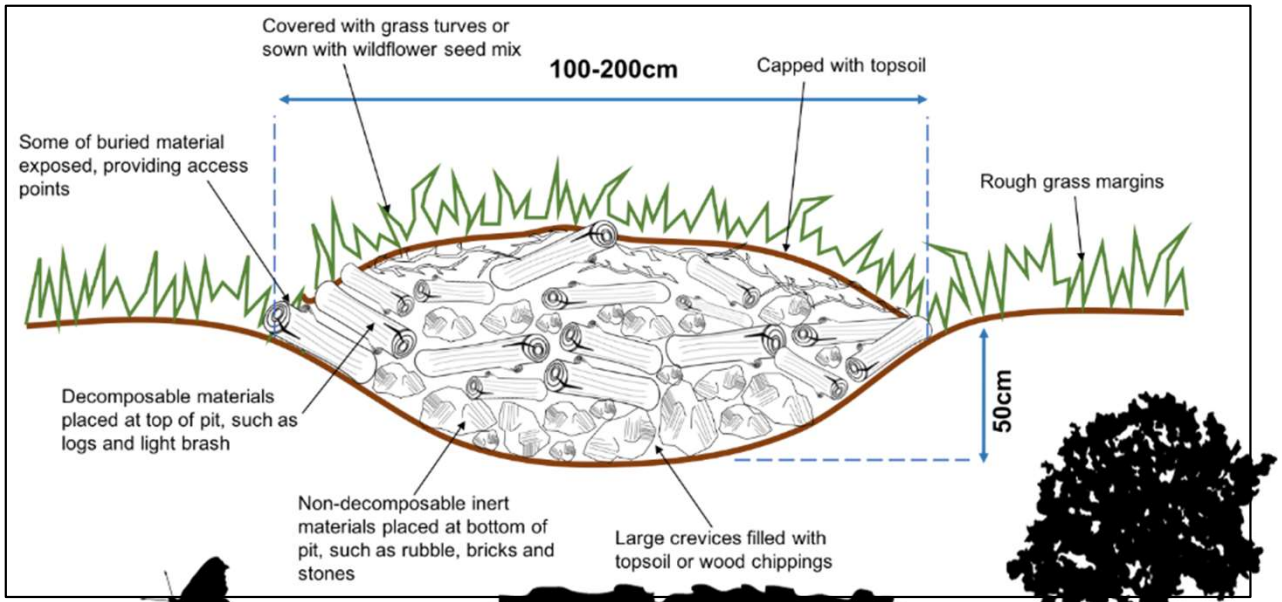
- Log piles
- Hibernacula
- Frog house
- More plants

Photo Credit: Becca Bratt, WWT



Photo source: NHBS





Enjoy your pond & its wildlife

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Ponds are mostly self sufficient, so just sit back & enjoy them

Photo Credit: Becca Bratt, WWT

