01 / PLAN THE POND

Build a wildlife pond that works at the edges

A practical guide to siting, shaping, lining and planting a garden pond, with details that give wildlife a route in, a way out and somewhere to shelter.



A SAS Aquatics pond and meadow in Devon: water, shallow stone margins and habitat beyond the bank.

1. Choose a spot with room around it

Look for some sun and some shade, room to work around the pond and a route for wildlife into nearby vegetation. Avoid the lowest place if soil or fertiliser can wash into it. Leave space between the water and buildings, fences, buried services and major tree roots. Check where rainwater and any overflow will go.

2. Mark the edge before digging

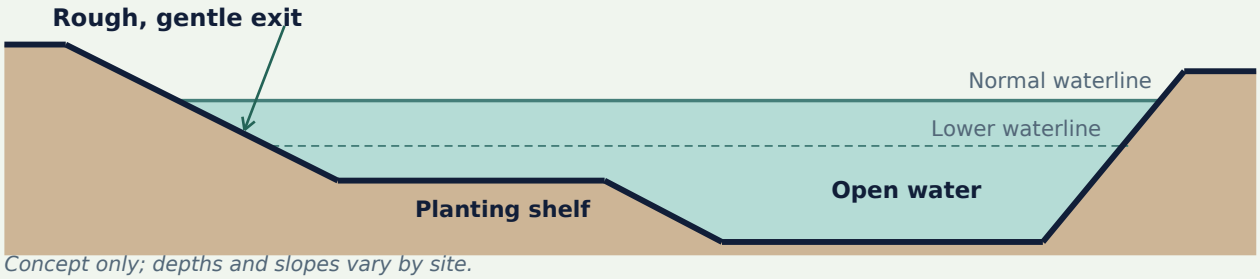
Lay a hose or rope on the ground. Mark the intended water level on pegs and check it all the way round. Set aside room for at least one generous shallow beach, shelves that fit the plants, and an open-water area. Keep a firm route for maintenance that does not use the wildlife beach.

> **Start with safety and site checks**
>
> Check buried services before digging and plan how to keep children and pets safe around open water. Get site-specific advice for deep, unstable, steep or watercourse-connected sites.

02 / SHAPE & LINE

Shape first. Measure second.

AN EDGE THAT STILL WORKS WHEN WATER DROPS



Concept only; depths and slopes vary by site.



A laser level sets the waterline and margin levels on a Cornwall restoration.



Liner fitted after profiling the connected basins at Woodbury, Devon.

3. Dig the profile and check the levels

Make the shallow margin broad rather than cutting a steep-sided bowl. Check the rim and shelf levels again before lining: the lowest rim controls where the water can escape. Remove sharp stones and roots and smooth the base. Keep the liner protected under heavy edging, logs or stone.

4. Fit underlay and liner before finishing the edge

Measure the excavated pond with a flexible tape following the deepest profile in both directions. Include the edge or anchor detail on both sides, following the liner supplier’s allowance. Fit protective underlay and lay the liner without stretching it tight. Add water gradually so it settles; secure and trim only once the level and edge detail are right.

> **Buying a liner?**
>
> Keep your measured length and width, maximum depth, shaped outline and anchoring allowance to hand. Measure the actual profile, especially for irregular ponds or broad shelves.

03 / PLANT & MAKE EXITS

Plant for the water you have

Set plants by the depth actually measured above their crowns. Think about the normal level and the dry-weather level before you decide where each group goes.



Cobbles and a low, rough edge meet the water at Woodbury.



Groups of marginal plants around open water at the same site.

5. Use three planting zones

Damp bank: above the ordinary waterline, use plants that like moisture but do not need permanent submersion. **Shallow shelf:** group suitable native marginals, such as water mint or water forget-me-not, and give spreaders room. **Deeper water:** choose plants sold for that depth and leave open water between groups. Follow the nursery’s actual planting depths.

6. Keep the way out open

Carry a long, gentle, textured slope from land into the pond, reaching below the lower summer waterline. Use stable rounded gravel, cobbles or a secure rough branch as appropriate, protect the liner underneath, and check the route is still usable after water levels drop. Avoid an unbroken surround of tall stones or solid planting.

Use clean materials and water

Keep ordinary garden soil and fertiliser out of the water. Where the chosen plants suit it, bed them into clean, washed, suitably sized gravel in a stable shelf. Use clean collected rainwater where practical, avoid dirty runoff, and let wildlife arrive on its own; skip fish if wildlife is the priority.

04 / ADD SHELTER & CHECK

Give wildlife a place to shelter

A quiet corner outside the pond is useful habitat in its own right. Connect it to long grass or a hedge, with a route back to the water.



1. Stone base with gaps



2. Add logs and cavities



3. Lay a stable timber cover

A real SAS hibernaculum build in East Devon, before the final soil or turf covering.

7. Add dead wood and a winter refuge

An untreated log pile in a sheltered spot offers damp crevices for invertebrates and cover for frogs, toads and newts. For a hibernaculum (winter refuge), pick a quiet, well-drained spot above flood level. Use stable clean stone and untreated wood to leave gaps, cover with soil or turf for shelter and keep entrances open at ground level. Do not disturb an occupied refuge.

8. Check the pond after filling

Look for exposed liner, loose edge stone, blocked exits or overflow running where it should not. Recheck the escape route when the level is low. Keep some rough vegetation as cover, and manage plants in sections rather than clearing every margin at once.

Final walk-round

Level rim / Safe access / Shallows and escape route / Correct plant depths / Protected liner / Safe overflow / Dry land refuge

MORE ADVICE & PROJECT EXAMPLES

SAS pond advice **SAS hibernaculum build** **Freshwater Habitats Trust**

RHS wildlife ponds **Froglife winter refuge guide**

Photography: SAS Aquatics project archive. General guidance for garden wildlife ponds.