

Still water

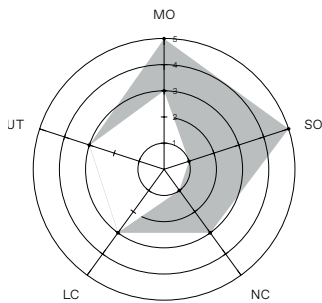
Amphibians, dragonflies, mussels, and other aquatic organisms directly depend on still water.



Definition

Still water includes permanently filled ponds and periodically dry pools.

Site requirements



- Moisture (MO)

 - 1 Dry
 - 2 Fresh
 - 3 Moist
 - 4 Wet
 - 5 Always/part. inundated
- Soil (SO)

 - 1 Raw soil
 - 2 Mineral soil (gravelly)
 - 3 Medium humus content
 - 4 Rich in humus
 - 5 Litter-rich humus (duff)
- Nutrient content (NC)

 - 1 Very low
 - 2 Low
 - 3 Moderately low/rich
 - 4 Rich
 - 5 Very rich
- Light conditions (LC)

 - 1 Full sun
 - 2
 - 3 Semi-shade
 - 4
 - 5 Shade
- Utilization (UT)

 - 1 Passive nature experience
 - 2
 - 3 Active utilization temporarily possible
 - 4
 - 5 Active utilization possible

Principles

Fulfilling these guidelines promotes the biodiversity of this habitat type.

- Seeds and planting material

 - > 80% domestic and site-appropriate species
 - As autochthonous as possible
 - High species diversity
 - 0% invasive non-native species
- Structure

 - Shallow banks
 - Zones with varying water depths
 - Depending on the site: foil or natural sealing
- Maintenance

 - If possible, managing the entire area according to the principles of near-natural maintenance
- Site

 - If possible, install at lowest point of the site

Advanced requirements

By fulfilling these requirements, the biodiversity of this habitat type is additionally promoted.

- Seeds and planting material

 - 100% native and site-appropriate species
 - Only wild and local, no cultivated forms
- Structure

 - Add small-scale structures such as stone piles, dead wood and herbaceous borders
 - > 1 m buffer zone
- Maintenance

 - Entire area in accordance with the principles of near-natural maintenance
 - Adjust schedules for maintenance and interventions according to species' needs

Biodiversity effect

If the habitat is planned, realized, and maintained as described, it has the following potential to benefit biodiversity:

high = ●●●●● low = ● negative = (●)

- Ecological connectivity

▮ ●●●●
- Habitat for wildlife

▮ ●●●●●
- Habitat for wild plants

▮ ●●●●●
- Ecological compensation

▮ ●●●●●



Planning

- Preserve existing valuable still water bodies
- Plan a buffer zone of >1 m
- Include rainwater management in the planning process
- Reuse topsoil and examine the creation of a water body if earth movements are planned
- Select ideal site: lowest point in the terrain, extensive and nutrient-poor environment
- Plan near-natural maintenance habitats in the surrounding
- Consider amphibian spawning season in the planning process
- Provide native and site-appropriate vegetation
- Consider maintenance already during planning

Implementation

- Protect amphibian spawning areas from construction activities
- Implement a buffer zone of >1 m around the water
- Reuse topsoil and humus
- Use substrate of local origin or construction activities
- Model the bed of the still water
- Design the bank area with structural elements
- Use native and site-appropriate swamp and aquatic plants
- Put plants between April and June and use large stones to fix plants to the ground, do not fertilize
- Avoid intensive utilization with too much disturbance

Maintenance

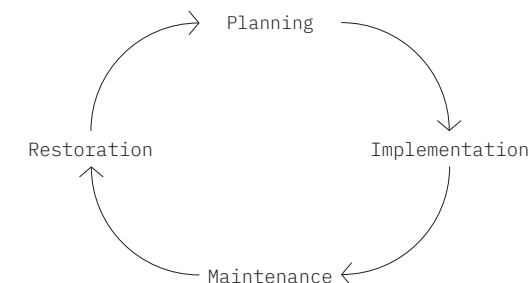
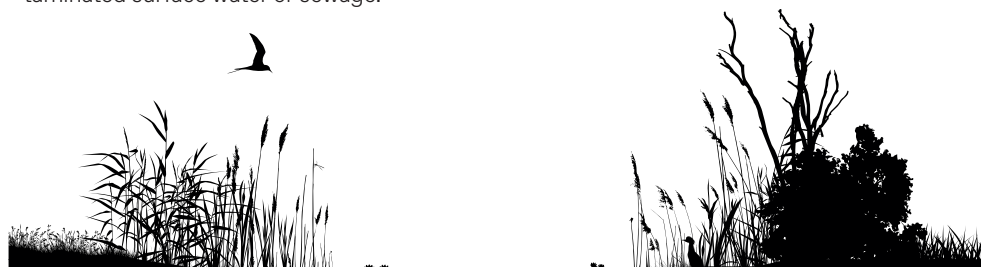
- Remove vegetation and mud using a pond suction cleaner
- Remove pond organisms before cleaning pond or bed material
- Cut bank vegetation in sections
- Leave cuttings and extracted pond mud for a few days, then remove
- Remove or cut woody and overly dominating herbaceous species

Restoration

- Reutilization of small-scale structures in dry sites possible
- No reutilization of plants and small-scale structures in a different water body
- Fill up substrate in layers
- Contact experts for handling existing animal populations

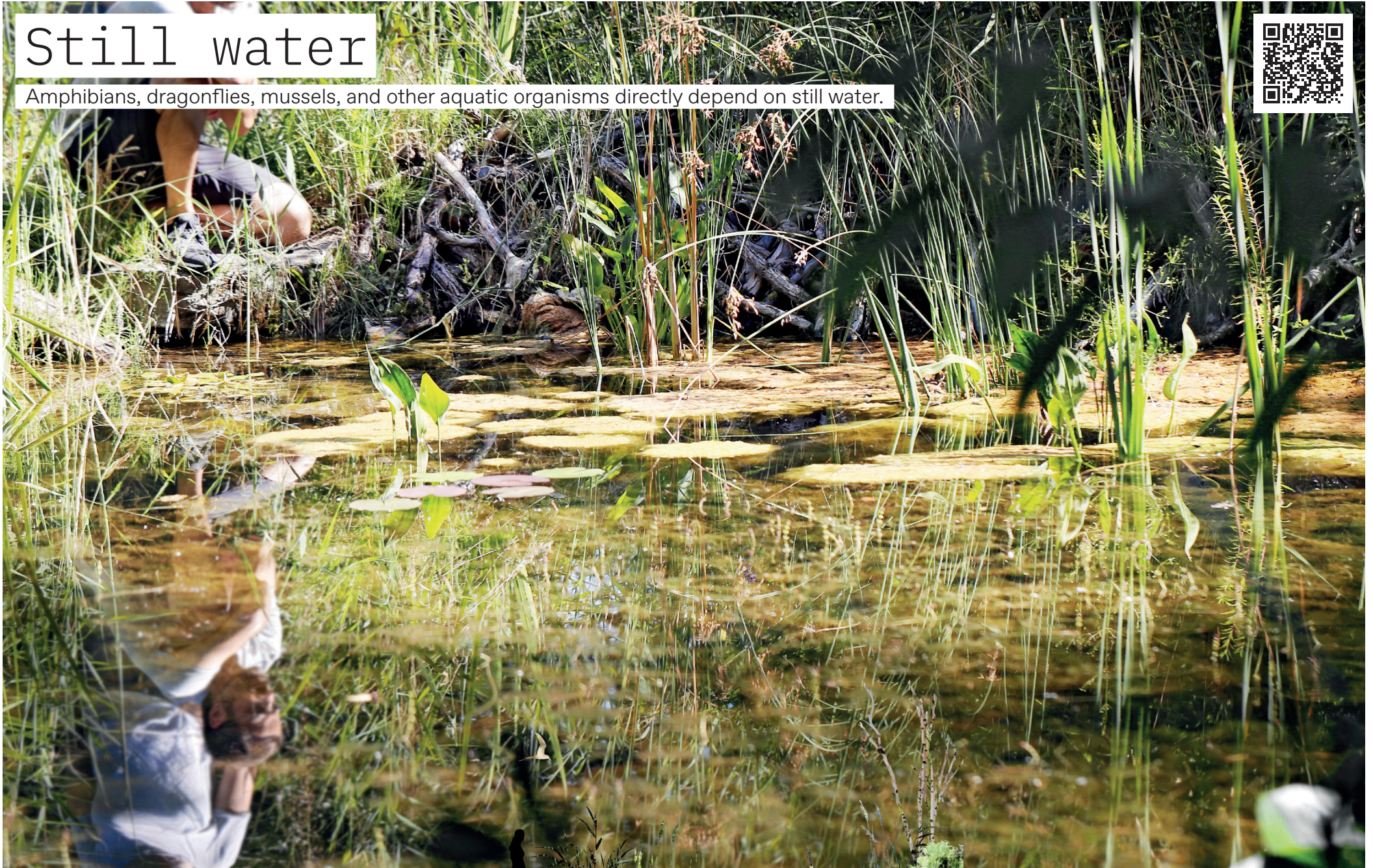
Climatic requirements

No specific requirements but sites shouldn't be leaky, too dry, or too sunny as this can promote algae growth. Furthermore, too shady locations can inhibit vegetation growth. Water needs to be able to sufficiently warm up, which requires a minimum time of sun exposure of 6 to 8 hours. Plant population in the water varies depending on water characteristics and local environmental factors. A still water body does not require water treatment but one must prevent inflow of contaminated surface water or sewage.



Still water

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Still water at the station d'purification des eaux usées in Neuchâtel, Switzerland (Neuchâtel)



Still water in the Miescherheimat nature garden in Rothrist, Switzerland (Stefanie Würsch)



Alpine newt, *Ichthyosaura alpestris* (Adobe Stock)



White waterlily, *Nymphaea alba* (Adobe Stock)