

Annex A: Selected Scientific References

Core Water & Solvation Science

1. **Chaplin, M. (2006).** *Do we underestimate the importance of water in cell biology?* *Nature Reviews Molecular Cell Biology*, 7, 861–866.
2. **Ball, P. (2008).** *Water as an active constituent in cell biology.* *Chemical Reviews*, 108(1), 74–108.
3. **Israelachvili, J. (2011).** *Intermolecular and Surface Forces* (3rd ed.). Academic Press.
4. **Marcus, Y. (2009).** *Effect of ions on the structure of water.* *Chemical Reviews*, 109(3), 1346–1370.

Magnetic / Physical Water Conditioning (Cautious & Balanced)

1. **Coey, J. M. D., & Cass, S. (2000).** *Magnetic water treatment.* *Journal of Magnetism and Magnetic Materials*, 209, 71–74.
2. **Toledo, E. J. L., et al. (2008).** *Magnetic treatment of water and scaling behavior.* *Water Research*, 42(1–2), 343–350.

Scaling, Infrastructure & Water Systems

1. **Barrett, R. A., & Parsons, S. A. (1998).** *Influence of magnetic fields on calcium carbonate precipitation.* *Water Research*, 32(3), 609–612.

Membranes, Aquaporins & Transport

1. **Agre, P., et al. (2002).** *Aquaporin water channels—from atomic structure to clinical medicine.* *Journal of Physiology*, 542(1), 3–16.
2. **Verkman, A. S. (2011).** *Aquaporins at a glance.* *Journal of Cell Science*, 124, 2107–2112.

Soil–Plant–Water Interface

1. **Hillel, D. (2004).** *Introduction to Environmental Soil Physics.* Elsevier.

Annex B: Evidence Mapping – What This Literature Supports (and What It Does Not)

Evidence Area	What the Science Supports	What It Does NOT Claim
Water structuring & solvation	Water organization affects transport, energetics, and interfaces	Permanent “memory” of water
Ion hydration shells	Hydration radius influences mobility & bioavailability	Increased solubility limits
Interfacial water	Surface-bound water behaves differently than bulk water	Violation of thermodynamics
Magnetic conditioning	Can influence crystallization & scaling behavior under some conditions	Universal or guaranteed effects
Aquaporins	Water transport is sensitive to structure & energetics	Direct magnetic control of cells
Soil–water movement	Physical water properties affect infiltration & uptake	Yield increases without context
Infrastructure performance	Scaling morphology affects maintenance & efficiency	Chemical water softening replacement