

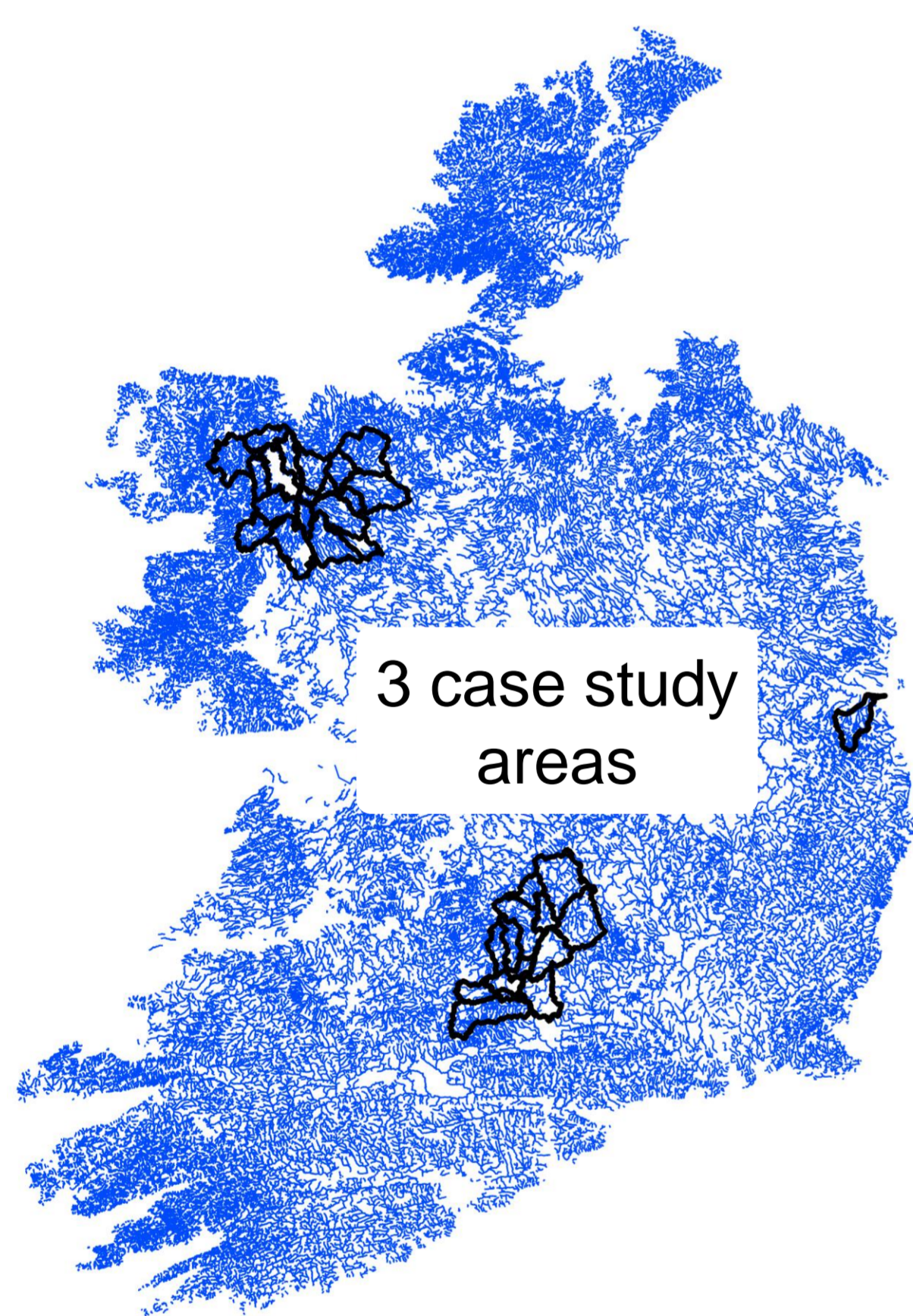


ESDecide project:

from Ecosystem Services Framework to Application for Integrated Freshwater Resources Management

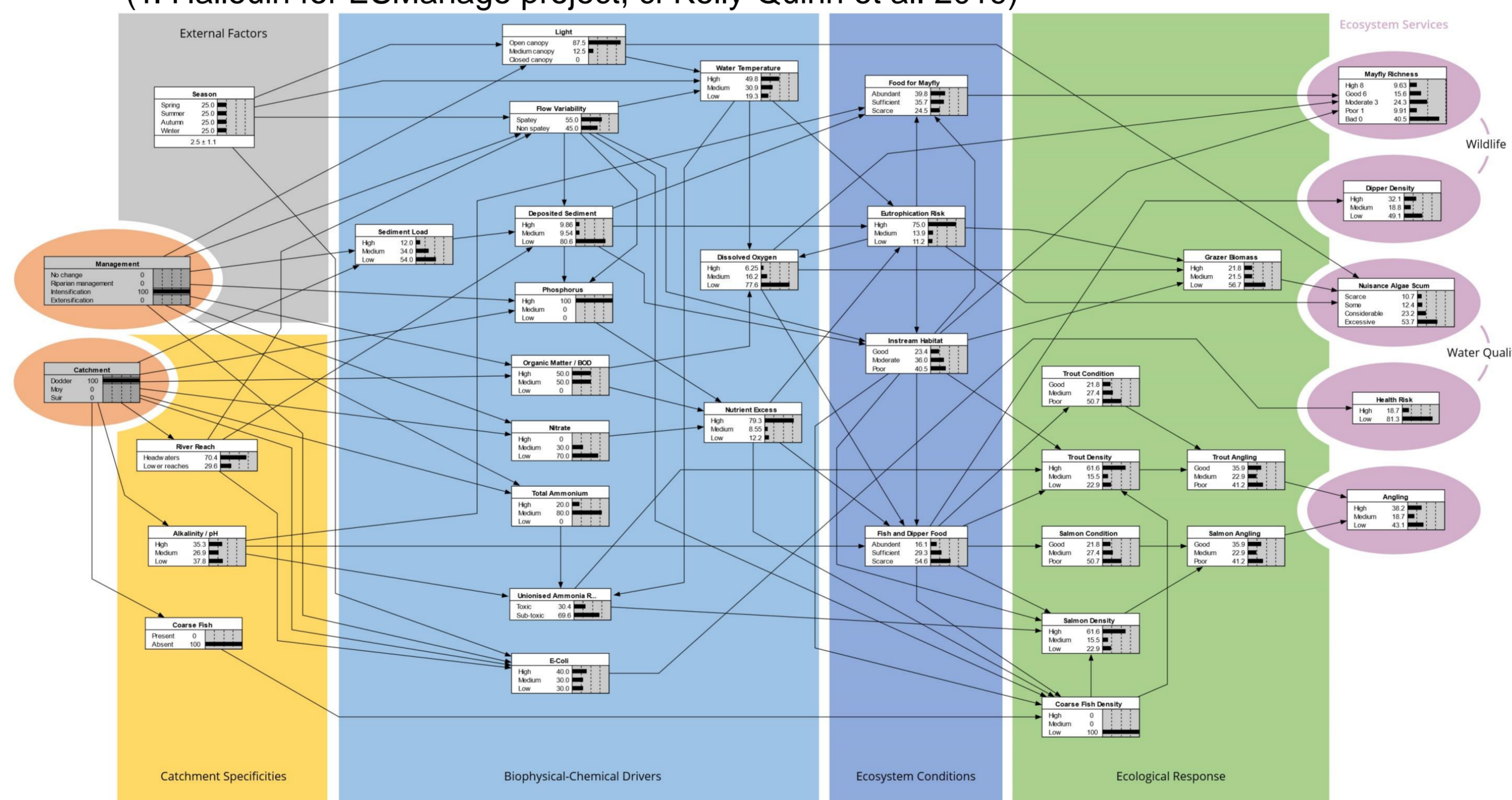


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Bayesian Belief Network

(T. Hallouin for ESMange project, cf Kelly-Quinn et al. 2019)



Freshwaters cover <1% of the Earth's surface but contribute disproportionately highly to ecosystem services, including water for consumption and food production, sanitation and recreation.

Freshwaters are also among the most degraded and threatened ecosystems, undermining these services. The ecosystem services framework can be a useful management tool, because it focuses on targets that policy makers, managers and stakeholders can directly relate to.

ESDecide (2019–2022) develops an evidence-based decision-support tool for Ireland's river ecosystems using a Bayesian Belief Network (BBN) model linking managerial decisions to the desired ecosystem service outcomes through biotic and abiotic causality chains.

The existing provisional BBN model will be restructured and reinforced with existing stressor-response data. Ecosystem services will undergo monetary and non-monetary valuation. The BBN model will then be developed into an intuitive online decision-support tool.

