



Valuing Nature Annual Conference 2019



'English wetlands and mosquitoes: economic values, scenarios and risks?'

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- Wetland benefits are significant, diverse and context specific
- Valuation is tricky
- Visitor-based benefits are important and sensitive to perceptions of environmental risk
- Managing actual and perceived risks is critical for wetland policy and practice



- Wetlands?
- Wetland Futures?
- Economic Benefits & Valuation?
- Environmental risks ?
- Mosquitoes ?
 - So what? What to do?



Great Fen 



Sun , Sept 2019 'Plague of hungry mosquitoes' will invade Britain next WEEK as Saharan 'heat bubble' hits

Guardian July 2019: Mosquito-spread diseases may endanger millions in new places due to climate change

- **Provisioning**
 - Material benefits
- **Regulating**
 - Process benefits
- **Cultural**
 - Non-material benefits

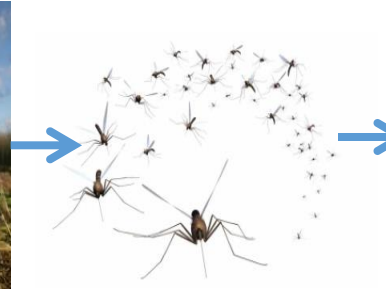


Supporting Services

The capacity to support other services through essential processes

Wetlands and Mosquito Risks?

Source → Pathway → Ouch!



- Mosquito Risk
 - (Prob x Damage)
- Damage
 - Nuisance/disease
- Risk
 - Actual/perceived
- Economics
 - Impact on wetland benefits and costs
- Managing Risk

Mosquito Risk =
Probability x Damage

Mitigation

Adaptation



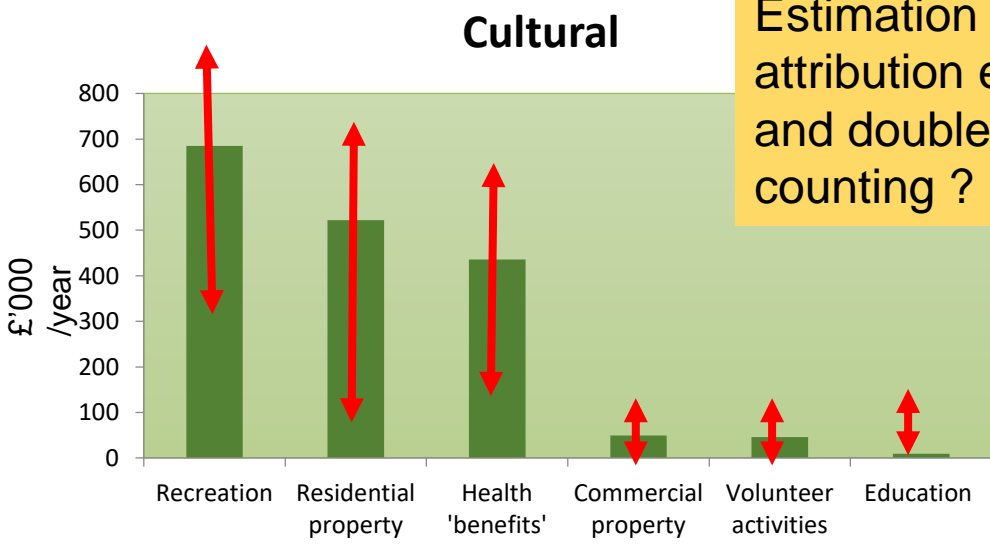
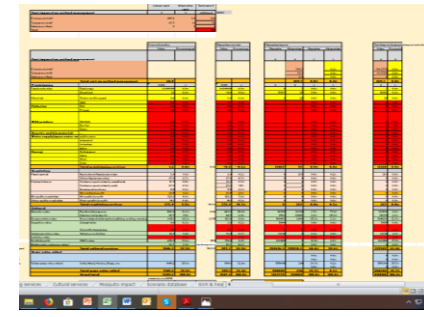
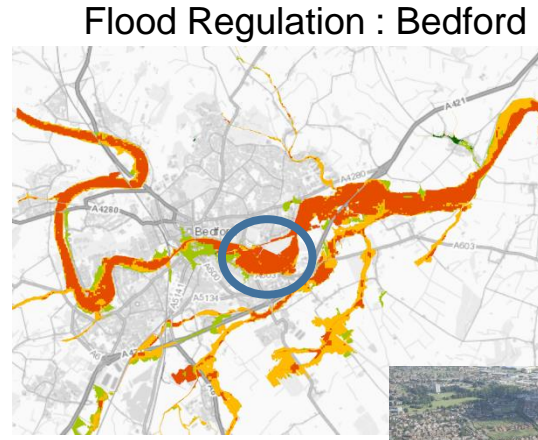
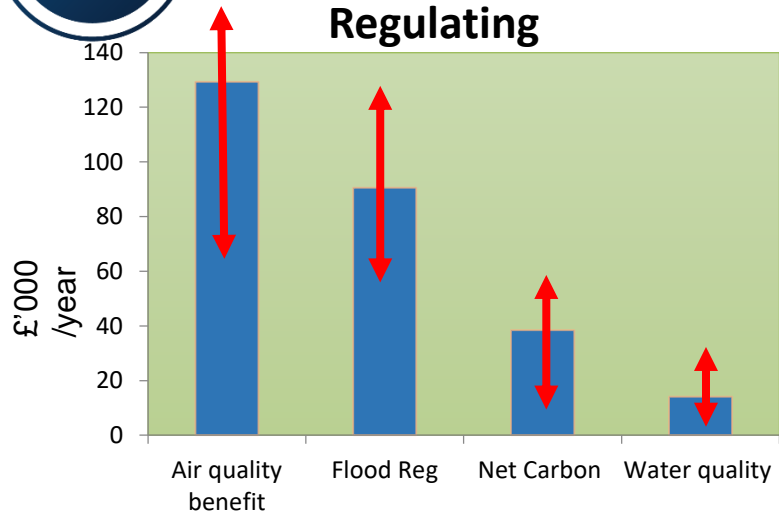
- Arable reversion: Avalon Marshes, Somerset
- Coastal: Alkborough Flats, Humberside
- Urban: Bedford
 - Priory Park
 - Millennium Park



Edwards/2020VISION



Wetland Benefits: An example - Bedford Priory (provisional with possible ranges)



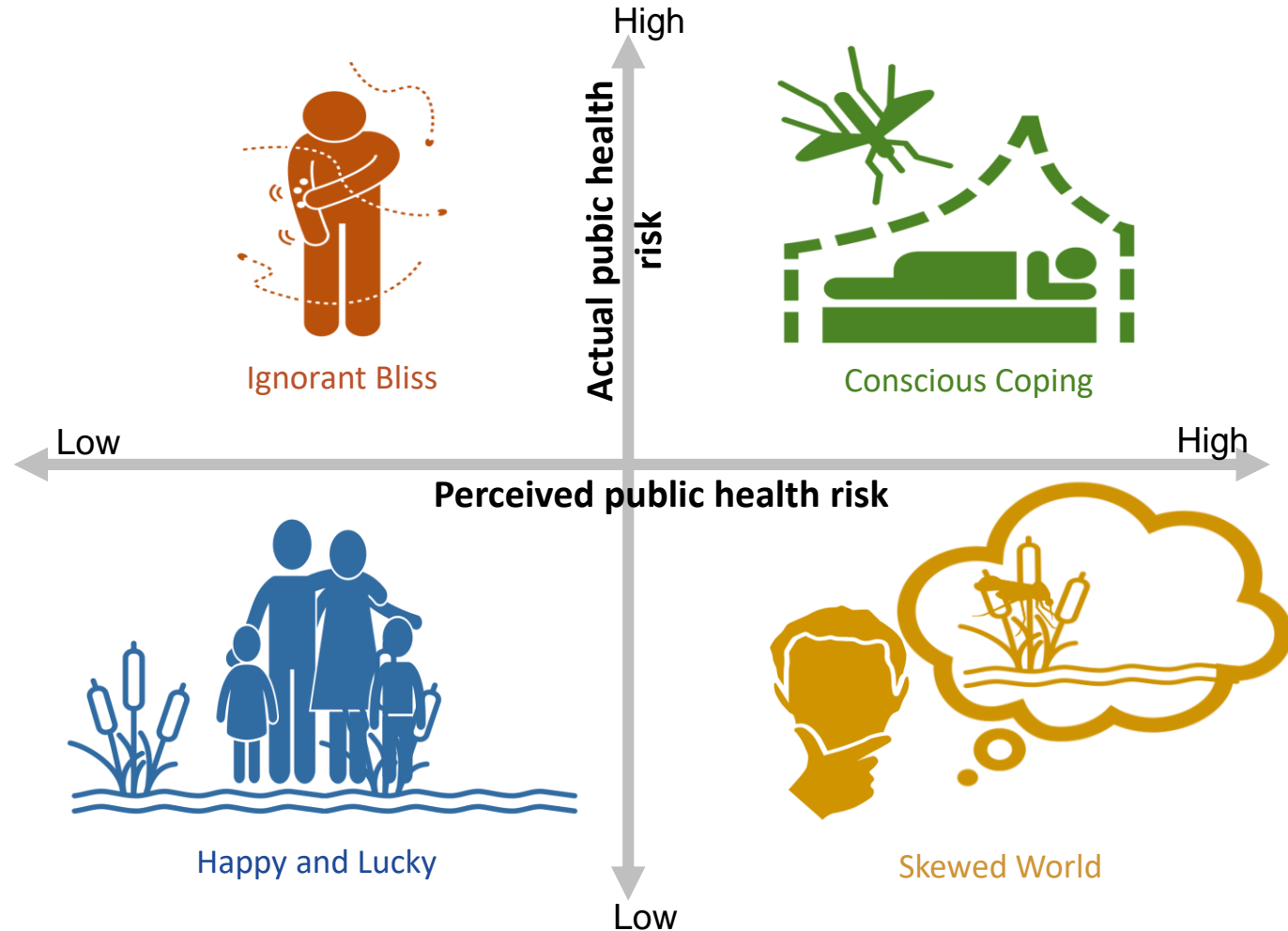
Estimation and attribution errors, and double counting ?

Plus Local Economy Impacts

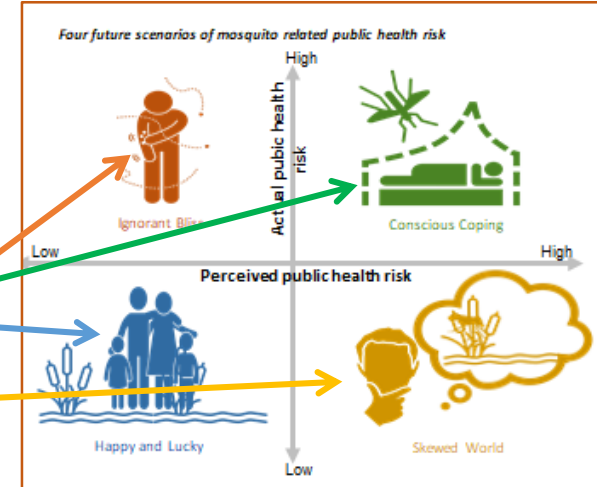
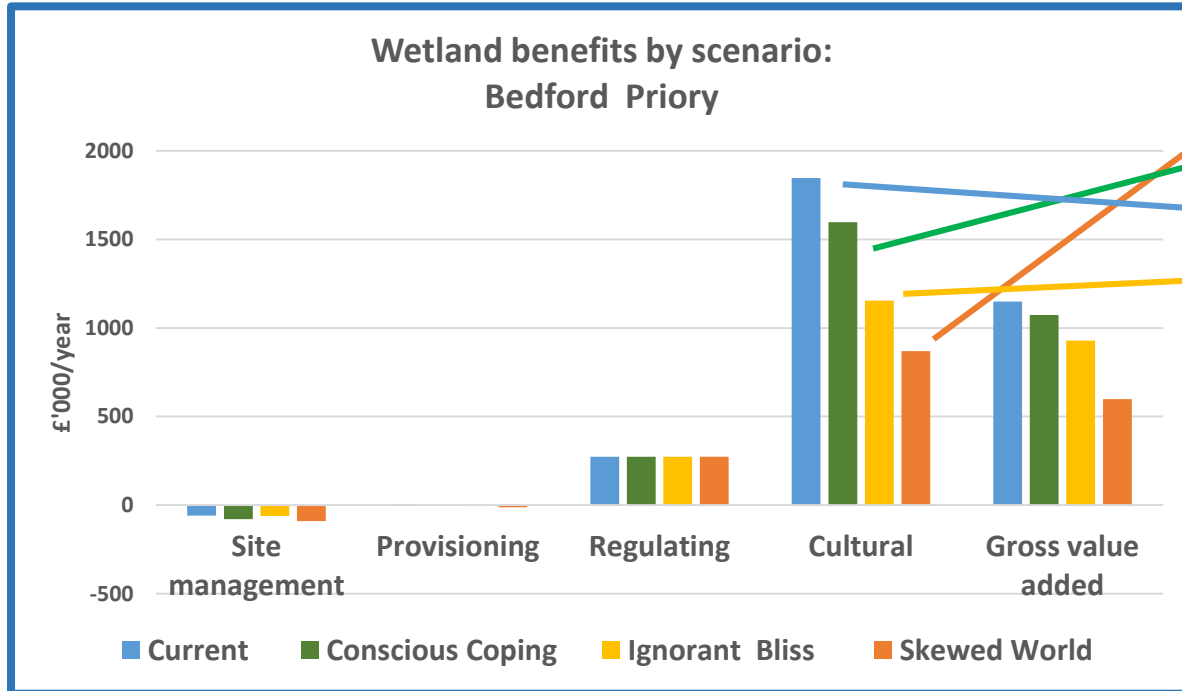
Gross Value Added About £1 million/year

What's the impact on wetland benefits of possible future mosquito nuisance and disease risks?

Four future scenarios of mosquito related public health risk



Economic Impact Scenarios: Mosquito related risk on Wetlands: Bedford Priory



£₂₀₁₈, scenario estimates exclude costs of mosquito related public health costs

- Policy Commitment
- Public and environmental health
- Governance
- Public Education
- Site Management
- Guidance



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- Valuation is challenging
- Wetland benefits are sensitive to perceptions of environmental risk
- Managing actual and perceived risks is critical





Thankyous



Thanks to
WetlandLife Team
led by
Tim Acott ,
University of Greenwich
and to the
Valuing Nature Programme

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