

# The application of No Net Loss Policy in Quebec: Can we really engender a 'social fit' for more sustainable land-use planning?

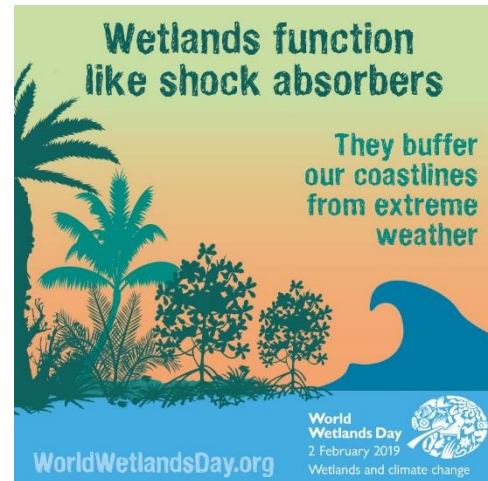
C. Jacob<sup>1</sup> & J. Dupras<sup>2</sup>

<sup>1</sup>Vertigo Lab, formely at Université du Québec en Outaouais - <sup>2</sup> Université du Québec en  
Outaouais

Land Use 2021 – 2021-05-17



# Wetlands: key ecosystems still threatened



- ❑ Between 1990 and 2011, ~19% of total wetlands in Saint-Lawrence lowlands in Quebec have been altered (Pellerin et Poulin, 2013)
- ❑ Drastic decrease worldwide since 1900: loss of 50% (UNWWAP, 2003), 60% in Europe (EEA, 2010) et 54% for the States since the 18th century (Dahl, 1990)

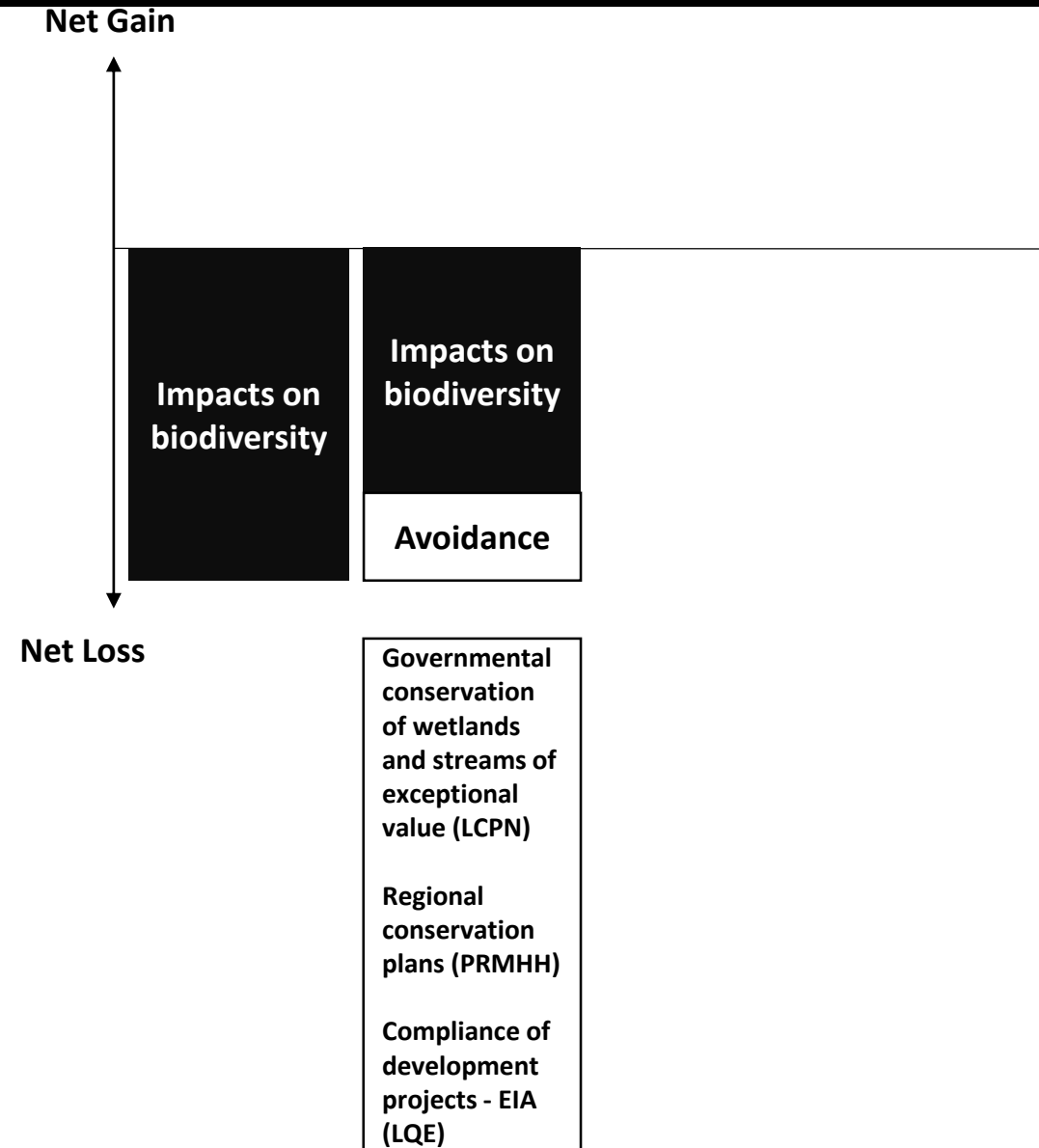
# The application of No Net Loss principle in Quebec

- ❑ A new legal corpus
- ❑ 5 mechanisms to implement the mitigation hierarchy
- ❑ Offset: a mechanism for wetland and stream creation and restoration



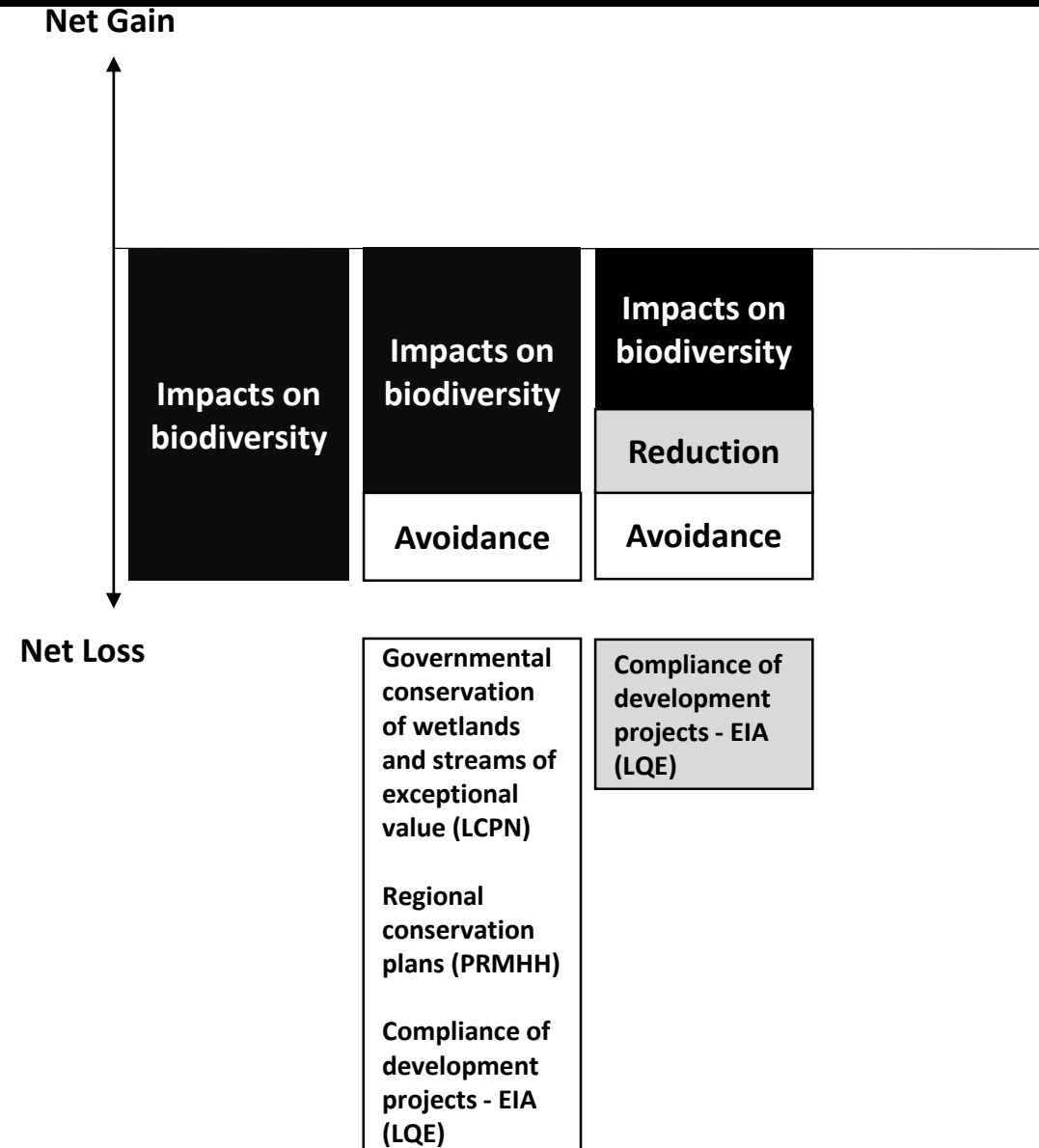
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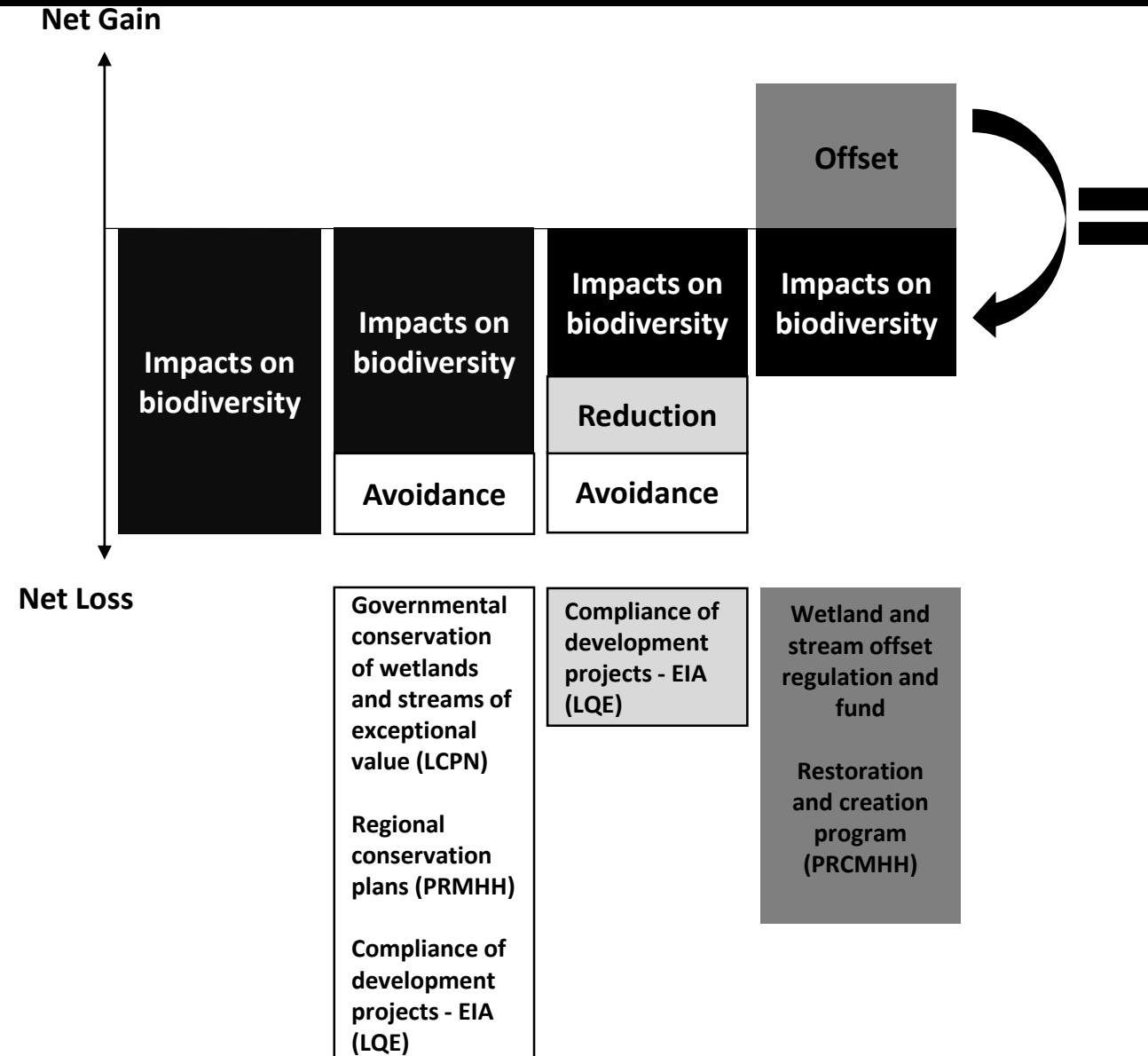
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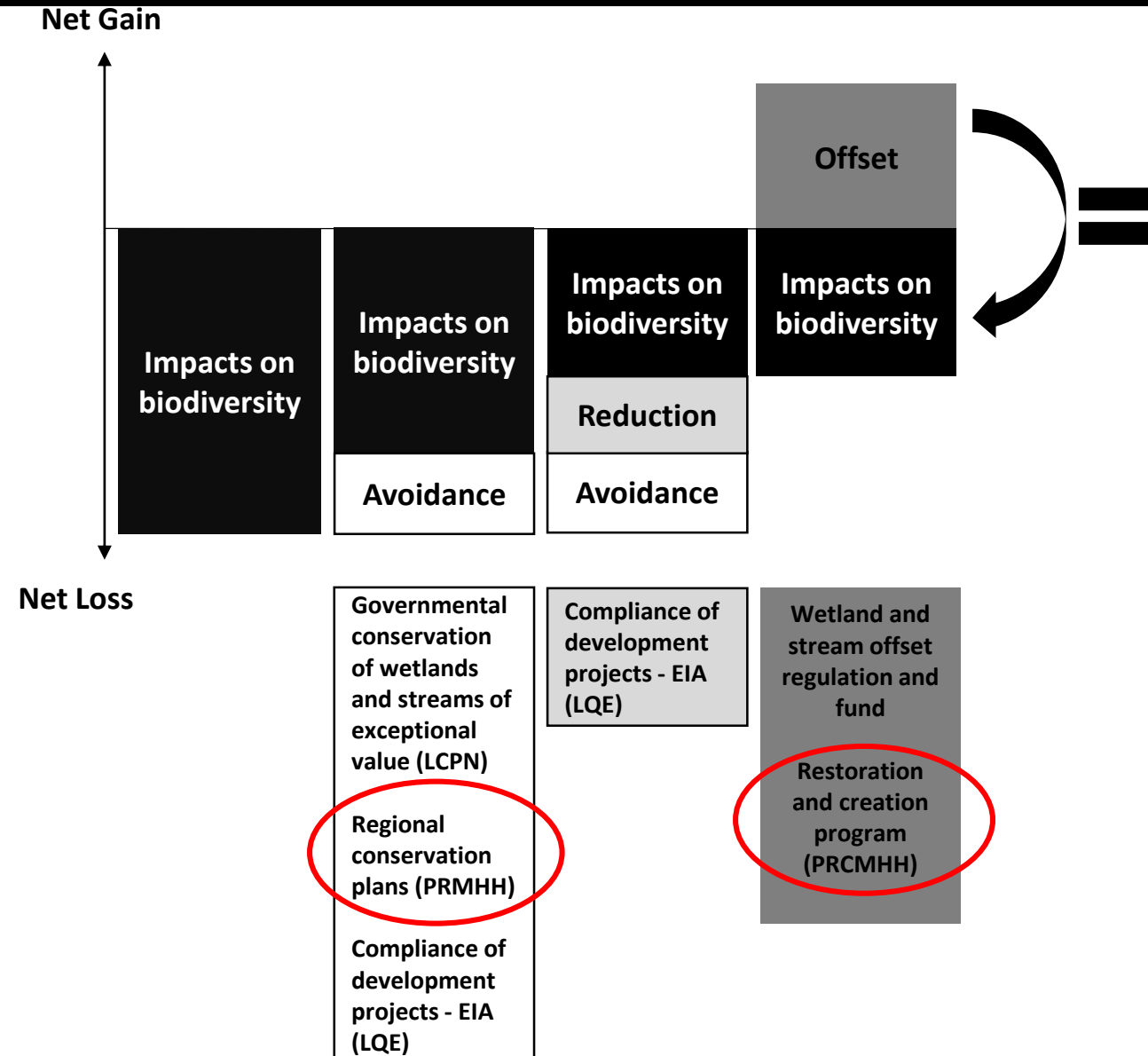
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# Mitigation hierarchy implementation relies strongly on political and social constructs

- ❑ Widely adopted by institutions and thoroughly reviewed in the literature
- ❑ Restoration, effectiveness of offsetting or optimization of institutions and their immediate functionality
- ✓ Institutional bricolage developed by Cleaver (2017)





# Mitigation hierarchy implementation relies strongly on political and social constructs

Conservation Biology 

Review

## Biodiversity Offsets and the Challenge of Achieving No Net Loss

TOBY A. GARDNER , AMREI VON HASE, SUSIE BROWNLIE, JONATHAN M. M. EKSTROM, JOHN D. PILGRIM, CONRAD E. SAVY, R. T. THEO STEPHENS, JO TREWEEK ... [See all authors](#) 

Methods in Ecology and Evolution 

Ecological Economics 169 (2020) 106428

Research Article 

## A method for accounting for

Jussi Laitila , Atte Moilanen

  
The Journal of the Society for Ecological Economics

 [Free Access](#)



Analysis

## Biodiversity offsets and payments for environmental services: Clarifying the family ties

Anne-Charlotte Vaissière<sup>a,b,\*</sup>, Fabien Quétier<sup>c</sup>, Coralie Calvet<sup>b</sup>, Harold Levrel<sup>d</sup>, Sven Wunder<sup>e,f</sup>



## How Much Compensation is Enough? A Framework for Incorporating Uncertainty and Time Discounting When Calculating Offset Ratios for Impacted Habitat

Atte Moilanen , Astrid J. A. Van Teeffelen, Yakov Ben-Haim, Simon Ferrier

First published: 24 July 2009 | <https://doi.org/10.1111/j.1526-100X.2008.00382.x> |

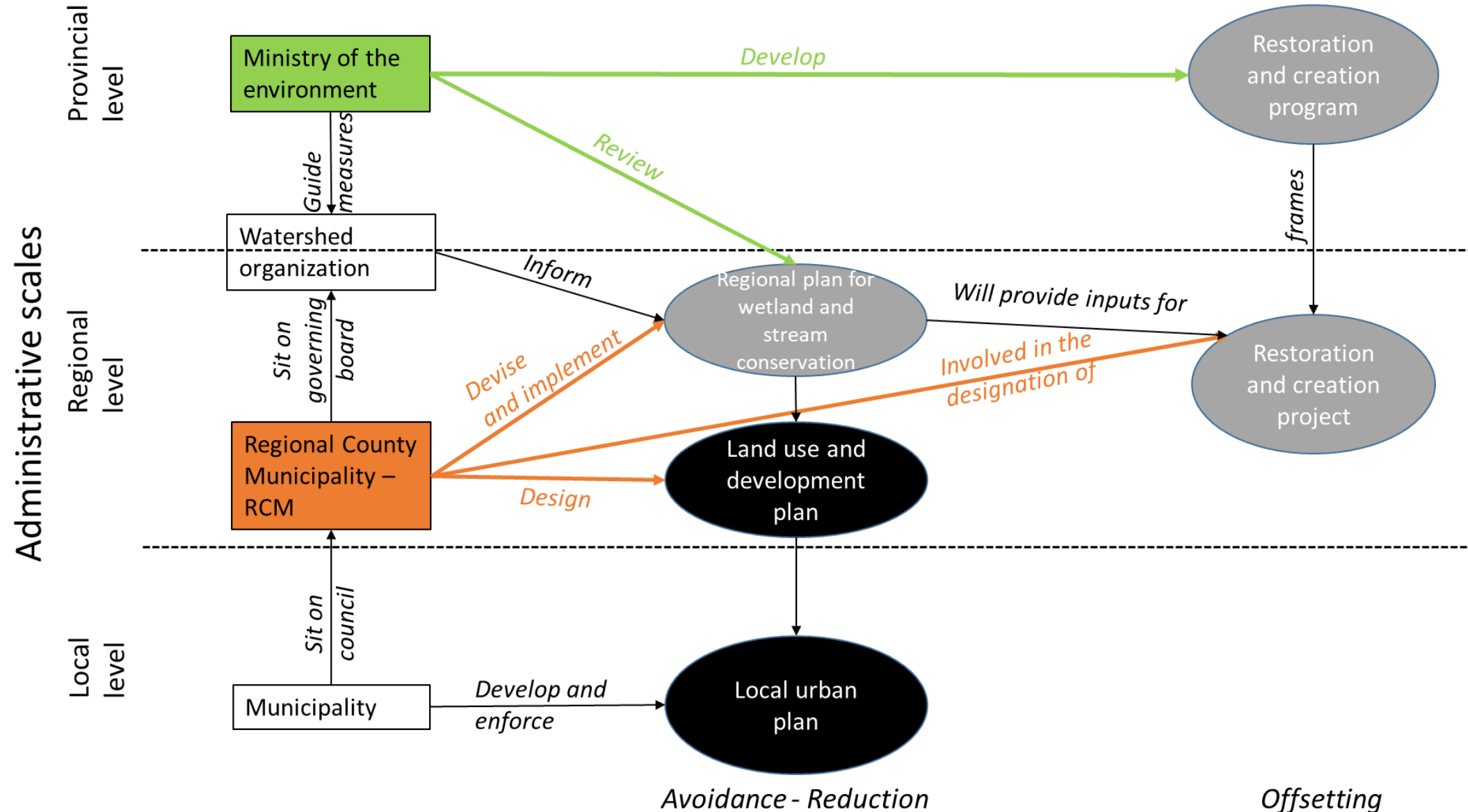
Citations: 120

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# Tensions between two dominant models: integrated water resources management and land use planning

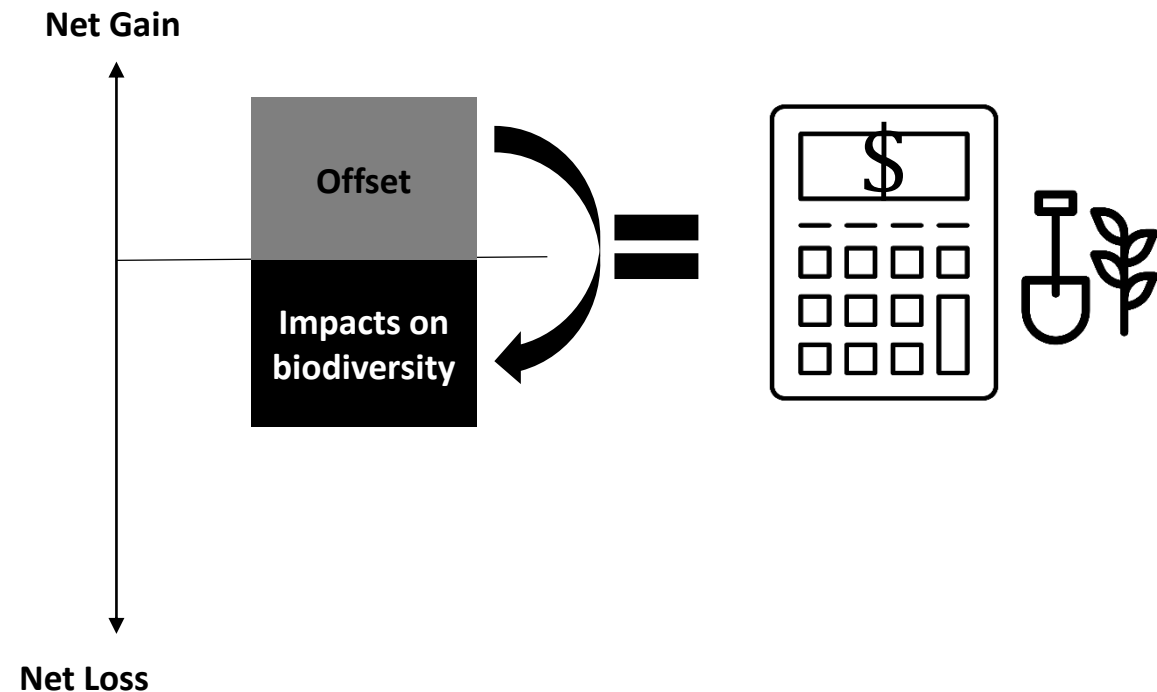


# No let loss historical dependence on top-down integrated water resources' management

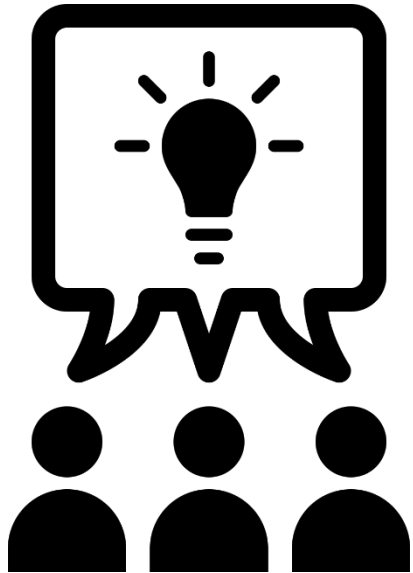
- ❑ Water management is decentralized and based on biogeographic watershed units
- ❑ Topdown collaborative governance with low enforcement, low impact on other sectorial policies or weak control and monitoring (Medema et al., 2015; Orr et al., 2016; Milot In: Chaloux, 2017)
- ❑ Regional plans for wetland and stream conservation handed over to and implemented at the scale of regional municipalities: a missed opportunity to empower watershed organizations
- ❑ Conservation plans should be regarded more as development plans

# A territorial perspective of the equivalence principle

- ❑ Equivalence assessed through the amounts available in the restoration fund
- ❑ Assessment methodology in line with the Wetland Rapid Assessment Methods (RAM) (Fennessy et al., 2007)
- ❑ Loose notion of equivalence: towards ecosystem services



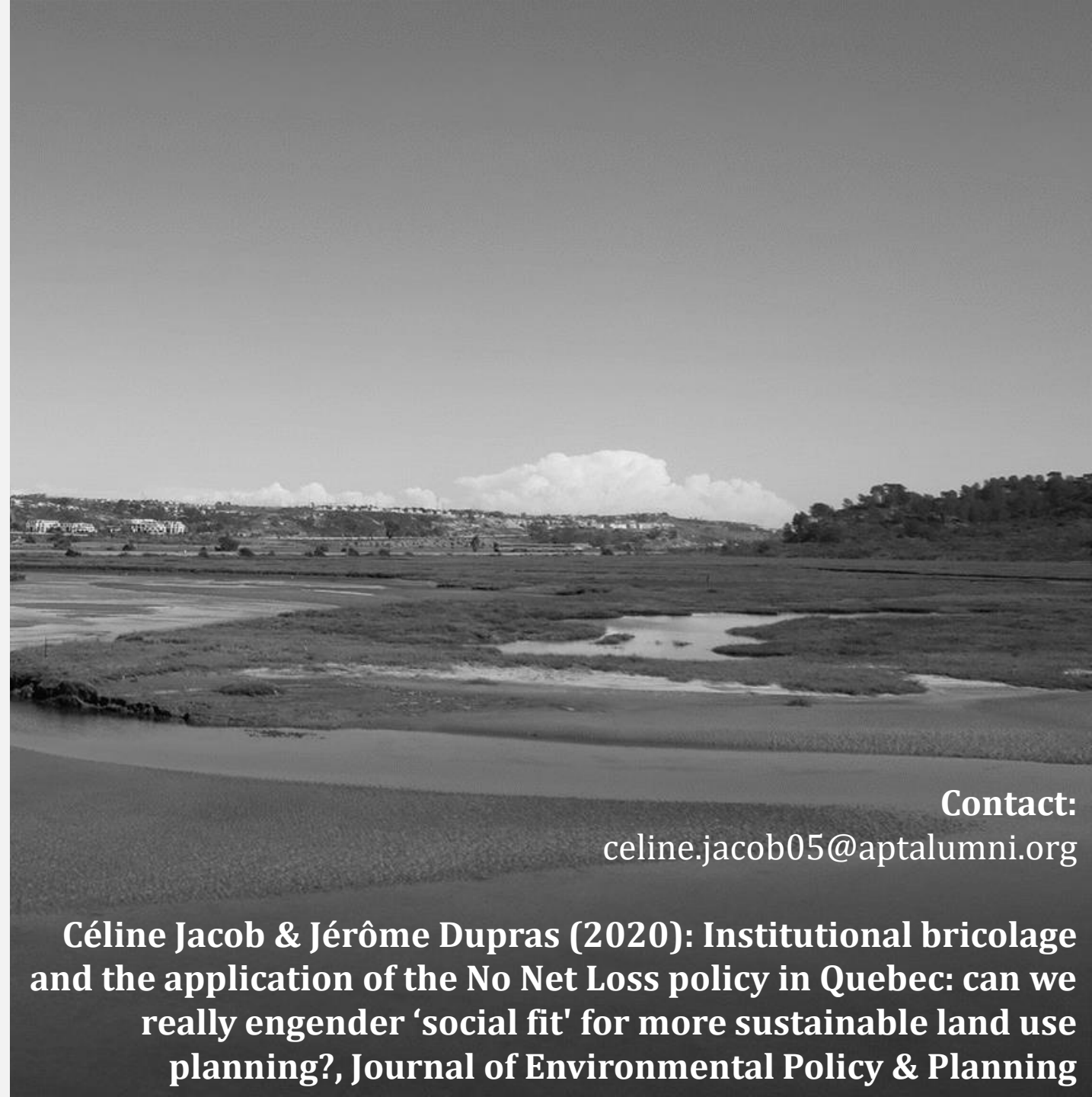
# Is a new social fit for wetland offsetting feasible?



- Acknowledgement and appreciation of collective needs and interests
- Watershed organizations, Regional Environmental Councils or regional municipalities are able to ‘consider all perspectives’
- Encourage stakeholder adhesion to new restoration solutions through the use of argumentation often founded in utilitarian considerations

# **A novel social fit for wetland offsetting?**

- **Without a reconfiguration of governance, offsetting limited to placing a 'bandage' on an existing system**
- **Uncertainties remain concerning the potential for system change given the strong influence of power relations and path dependency**



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**Céline Jacob & Jérôme Dupras (2020): Institutional bricolage and the application of the No Net Loss policy in Quebec: can we really engender 'social fit' for more sustainable land use planning?, Journal of Environmental Policy & Planning**