



## Biodiversity Offsets



# Land Use 2021: A Place for Biodiversity Offsets

**PRESENTING CURRENT TRENDS AND BEST PRACTICES**  
**LINKING THEORY AND PRACTICE**  
**STIMULATING INSIGHTFUL DISCUSSION**

Biodiversity offsetting is the process of intentionally producing environmental gains to counterweigh the negative impacts of development on nature, with a goal of no net loss or net gain for biodiversity. Embedded as the final stage in a hierarchy of mitigation approaches, it is increasingly used as a policy tool in an attempt to reconcile development and environmental protection, both in Canada and many other countries around the world.

## 8-PART WEB FORUM SERIES

APRIL 19 - JUNE 14, 2021  
FREE REGISTRATION

## PREMIER SPONSORS:



## RELEVANT TO:

CANADIAN AND INTERNATIONAL  
AUDIENCE - OFFSET EXPERTS,  
PRACTITIONERS, POLICY-MAKERS  
AND INTERESTED STAKEHOLDERS

## REGISTER:

[ALBERTALANDUSE.CA/LU21](http://ALBERTALANDUSE.CA/LU21)

The last 20 years have seen an explosion of interest in the topic in policy circles, among development planners and in academia. Organizations such as the International Union for the Conservation of Nature, the Business and Biodiversity Offset Programme, the Cross-Sector Biodiversity Initiative and the International Association for Impact Assessment have worked to articulate a set of principles and good practices to properly and effectively apply offsetting. Despite this, the offsetting remains a risky and controversial approach to environmental protection. Many aspects of it are poorly understood or inconsistently applied.

To help advance thinking, policy and practice respecting biodiversity offsetting, the Alberta Land Institute is presenting a series of web-based presentations and discussions to improve understanding regarding current thinking and good practices in offsetting. We will be engaging academic experts, practitioners, policy-makers and stakeholders in insightful discussions that aim to link the theory and practice of practice of offsetting for biodiversity.

We will draw on theory and practice to promote dialogue aimed at better and more consistent offsetting as a means of creating a better environmental future.

# SCHEDULE OF TALKS

**APRIL 19, 2021**

**2 - 3:30 PM MDT**

**PUTTING BIODIVERSITY OFFSETTING IN ITS PLACE - GIVING MEANING AND TEETH TO THE MITIGATION HIERARCHY AND LIMITS TO OFFSETTING**

SESSION LEADER: **Martine Marion**, University of Queensland

**APRIL 26, 2021**

**10 - 11:30 AM MDT**

**NO NET LOSS IN A CHANGING LANDSCAPE**

SESSION LEADERS: **Fabien Quetier**, Biotope; **Marian Weber**, British Columbia Ministry of Environment and Climate Change Strategy and **Eric Higgs**, University of Victoria

**MAY 3, 2021**

**10 - 11:30 AM MDT**

**BEYOND MULTIPLIERS: MANAGING THE RISKS OF OFFSETTING**

SESSION LEADER: **Joseph Bull**, University of Kent

**MAY 10, 2021**

**10 - 11:30 AM MDT**

**ALIGNING CARBON AND BIODIVERSITY OFFSETS**

SESSION LEADER: **Stewart Elgie**, University of Ottawa

**MAY 17, 2021**

**10 - 11:30 AM MDT**

**OFFSETTING AS IF PEOPLE MATTERED: SOCIAL ASPECTS OF BIODIVERSITY OFFSETTING**

SESSION LEADER: **Victoria Griffiths**, The Landscapes and Livelihoods Group

**MAY 31, 2021**

**3 - 4:30 PM MDT**

**MAKING OFFSET CREDIT BANKING WORK**

SESSION LEADER: **Amy Taylor**, Green Analytics

**JUNE 7, 2021**

**10 - 11:30 AM MDT**

**ECOSYSTEM SERVICE AND MARKET-BASED INSTRUMENTS**

SESSION LEADER: **James Salzman**, University of California, Santa Barbara

**JUNE 14, 2021**

**10 - 11:30 AM MDT**

**OFFSETTING IN THE CANADIAN CONTEXT: EXPERIENCE AND POTENTIAL**

SESSION LEADER: **Vic Adamowicz**, University of Alberta

**REGISTER TODAY: [ALBERTALANDUSE.CA/LU21](https://albertalanduse.ca/lu21)**



# SCHEDULE OF TALKS

## SESSION ONE:

### PUTTING BIODIVERSITY OFFSETTING IN ITS PLACE - GIVING MEANING AND TEETH TO THE MITIGATION HIERARCHY AND LIMITS TO OFFSETTING

**APRIL 19, 2021**

**2 - 3:30 PM MDT**

Session Leader: **Martine Maron**, University of Queensland

What can we reasonably expect of offsetting?  
When is it appropriate to employ and when not?

It is broadly agreed in theory and in policy that biodiversity offsetting ought only to be considered as the final step in a hierarchy of mitigation measures, after all reasonable efforts have been made to avoid, mitigate and remediate environmental impacts

As well, there are circumstances where offsetting is either very risky or practically impossible due to the rarity, fragility or irreplaceability of the particular species or resource in question. However, despite the widespread agreement and frequent mention of these doctrines, policy-makers have frequent difficulty in applying them with consistency.

This session will focus on how processes can be established to give life to the mitigation hierarchy and the notion of "non-offsetability", as well as the special challenges of apply offsets in non-standard environmental conditions.

#### Presenters:

- **Céline Jacob**, Vertigo Lab (formerly at Université du Québec en Outaouais), Jan-Willem van Bochove, Suzanne Livingstone, Thomas White, John Pilgrim & Leon Bennun, The Biodiversity Consultancy "Marine biodiversity offsets – pragmatic approaches towards better conservation outcomes"
- **David Browne**, Canadian Wildlife Federation "Can Offsets Be Used to Achieve Recovery Objectives for Species at Risk?"
- **Ritah Kigonya**, Norwegian University of Science and Technology "Consequences of funding protected area management as biodiversity offsets in Uganda"

#### PREMIER SPONSORS:



**UNIVERSITY OF ALBERTA**  
Alberta Land Institute



**ALBERTA INNOVATES**

#### SUPPORTING SPONSORS:

**SSHRC**  **CRSH**  
Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada

**Teck**

**ConocoPhillips**

**REGISTER TODAY:** [ALBERTALANDUSE.CA/LU21](https://albertalanduse.ca/lu21)



# SCHEDULE OF TALKS

## SESSION TWO:

## NO NET LOSS IN A CHANGING LANDSCAPE

**APRIL 26, 2021**

**10 - 11:30 AM MDT**

### Session leaders:

- **Fabien Quétier**, Biotope
- **Marian Weber**, British Columbia Ministry of Environment and Climate Change Strategy
- **Eric Higgs**, University of Victoria

A spirited discussion of the many issues measuring ecosystem losses and gains to assess progress to no net loss. Those issues are magnified in an increasingly shifting landscape.

The goal of biodiversity offsetting is often said to be no net loss or net gain of biodiversity. The notion relies on a projected future, adjusted to account for development and offsets. This is manifest by the offset requirements of baselines, additionality, and equivalency. But 'nature' is changing before our eyes, that its future may be less something we restore or reconstruct, and more something we design.

Join us for a provocative discussion on how key aspects of offsetting might apply in the Anthropocene.

### Presenter:

- **Florence Damiens**, RMIT University

### PREMIER SPONSORS:



**UNIVERSITY OF ALBERTA**  
Alberta Land Institute



**ALBERTA INNOVATES**

### SUPPORTING SPONSORS:

**SSHRC**  **CRSH**  
Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada

**Teck**

**ConocoPhillips**

**REGISTER TODAY:** [ALBERTALANDUSE.CA/LU21](https://albertalanduse.ca/lu21)



# SCHEDULE OF TALKS

## SESSION THREE:

## BEYOND MULTIPLIERS: MANAGING THE RISKS OF OFFSETTING

**MAY 3, 2021**

**10 - 11:30 AM MDT**

Session leader: **Joseph Bull**, University of Kent

The success and timeliness of offset measures is often far from certain. How can we adjust the process to compensate for risks and known inadequacies?

Biodiversity offsetting is frequently risky. Data on both development impacts and offset effectiveness is frequently less than ideal, baseline conditions may be uncertain and variable, offset measures may not be effective, differences between impact and offset sites and characteristics, and time lags may bring temporary or irremediable environmental losses.

A frequent tool to compensate for these risks is the use of offset multiplier ratios, whereby the offset outcome is planned to be larger than the development impact by a factor reflecting accumulated risk. The usefulness and assessment of multiplier ratios is a much-debated area, with positions ranging from advocacy for a complex mathematical approach customized to particular circumstances to simple set ratios that avoid contention and complication.

This session will explore this debate and wrestle with how multiplier ratios should be used and what other means are available to manage the risks of offsetting.

### Presenters:

- **Marcus Eyre**, Independent Consultant
- **Karen Stefanyk**, British Columbia Ministry of Environment
- **Amrei von Hase**, Biodiversity Specialist and Offset Practitioner
- **Naomi Nichol**, BC Ministry of Forests, Lands and Natural Resource Operations

### PREMIER SPONSORS:



**UNIVERSITY OF ALBERTA**  
Alberta Land Institute



**ALBERTA INNOVATES**

### SUPPORTING SPONSORS:

**SSHRC**  **CRSH**  
Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada

**Teck**

**ConocoPhillips**

**REGISTER TODAY:** [ALBERTALANDUSE.CA/LU21](https://albertalanduse.ca/lu21)



# SCHEDULE OF TALKS

## SESSION FOUR:

## ALIGNING CARBON AND BIODIVERSITY OFFSETS

**MAY 10, 2021**

**10 - 11:30 PM MDT**

Session leader: **Stewart Elgie**, University of Ottawa

The world needs tools to battle the twin crises of climate change and biodiversity loss.

Can we use offset concepts to make progress on both issues together?

Can a harmonized process of offsetting, accounting for both types of environmental values, be accomplished?

Presenter:

- **Royal C. Gardner**, Stetson University

### PREMIER SPONSORS:



**UNIVERSITY OF ALBERTA**  
Alberta Land Institute



**ALBERTA INNOVATES**

### SUPPORTING SPONSORS:

**SSHRC**  **CRSH**  
Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada

**Teck**

**ConocoPhillips**

**REGISTER TODAY:** [ALBERTALANDUSE.CA/LU21](https://albertalanduse.ca/lu21)



# SCHEDULE OF TALKS

## SESSION FIVE:

## OFFSETTING AS IF PEOPLE MATTERED: SOCIAL ASPECTS OF BIODIVERSITY OFFSETTING

**MAY 17, 2021**

**10 - 11:30 PM MDT**

Session leader: **Victoria Griffiths**, The Landscapes and Livelihoods Group

Offsetting is not only an ecological project, but a social one. This session will examine the process of planning ecologically effective offsets while serving the needs and integrating the perspectives of local communities and the broader public.

### Presenters:

- **Linus Hasselström**, EnviroEconomics Sweden and **Scott Cole**, KTH Royal Institute of Technology in Stockholm Sweden - "What do Swedes Prefer? Research on public acceptance and ecosystem services"
- **Céline Jacob**, Vertigo Lab (formerly at Université du Québec en Outaouais) and Jérôme Dupras, Université du Québec en Outaouais "The Application of No Net Loss Policy in Quebec: Can we Really Engender 'Social Fit' for More Sustainable Land-Use Planning?"
- **Charlie Palmer**, Hemmera, Burnaby, British Columbia "Building Stakeholder Support - Three Key Concepts"

### PREMIER SPONSORS:



**UNIVERSITY OF ALBERTA**  
Alberta Land Institute



**ALBERTA INNOVATES**

### SUPPORTING SPONSORS:

**SSHRC**  **CRSH**  
Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada

**Teck**

**ConocoPhillips**

**REGISTER TODAY:** [ALBERTALANDUSE.CA/LU21](https://albertalanduse.ca/lu21)



# SCHEDULE OF TALKS

## SESSION SIX:

## MAKING OFFSET CREDIT BANKING WORK

**MAY 31, 2021**

**3 - 4:30 PM MDT**

Session leader: **Amy Taylor**, Green Analytics

This session will take the concept of offsetting beyond the simple balancing of negative and positive environmental impacts for a single project and look at how offsetting can lay the groundwork for other market-based environmental management tools.

Under appropriate conditions the use of quantifiable units of environmental gain or loss may give rise to a market in such units in which economic values are reflected, bridging the worlds of economy and environment.

This session will explore the conditions, risk and potential of such advanced approaches.

### Presenters:

- **George Kelly**, Bespoke Mitigation Partners
- **Conor Gillespie**, Catalyst Companies "Ecological Mitigation Markets : A Practitioners Perspective on Critical Components and Pitfalls"
- **Marianne Darbi**, Hochschule Geisenheim University
- **John Seidel**, New South Wales Department of Planning, Industry and Environment

### PREMIER SPONSORS:



**UNIVERSITY OF ALBERTA**  
Alberta Land Institute



**ALBERTA INNOVATES**

### SUPPORTING SPONSORS:

**SSHRC**  **CRSH**  
Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada

**Teck**

**ConocoPhillips**

**REGISTER TODAY:** [ALBERTALANDUSE.CA/LU21](https://albertalanduse.ca/lu21)



# SCHEDULE OF TALKS

## SESSION SEVEN:

## ECOSYSTEM SERVICE AND MARKET-BASED INSTRUMENTS

**JUNE 7, 2021**

**10 - 11:30 PM MDT**

Session leader: **James Salzman**, University of California, Santa Barbara

Many of the concepts developed in offsetting systems are transferable to other kinds of ecosystem service markets, opening up new possibilities of cost-effective conservation action. None, however, are free of controversy. This session will examine some of the leading thinking and experiences.

### Presenters:

- **Gillian Kerr**, Royal Roads University, "Practical Governance Challenges for Offsets as Market-based Instruments in a Regulatory World"
- **Carmen Cantuarias-Villesuzanne**, Groupe ESPI, "Measuring the impact of transport infrastructure on biodiversity: towards a biodiversity finance in France"
- **Christopher Wally Wright**, Puget Sound Institute, "Keeping forest and agricultural lands working: market-based approaches, incentives and ecosystem services in Puget Sound"
- **Paige Olmsted**, University of Ottawa

### PREMIER SPONSORS:



**UNIVERSITY OF ALBERTA**  
Alberta Land Institute



**ALBERTA INNOVATES**

### SUPPORTING SPONSORS:

**SSHRC**  **CRSH**  
Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada

**Teck**

**ConocoPhillips**

**REGISTER TODAY:** [ALBERTALANDUSE.CA/LU21](https://albertalanduse.ca/lu21)



# SCHEDULE OF TALKS

## SESSION EIGHT:

### OFFSETTING IN THE CANADIAN CONTEXT: EXPERIENCE AND POTENTIAL

**JUNE 14, 2021**

**10 - 11:30 PM MDT**

Session leader: **Vic Adamowicz**, University of Alberta

Canada has significant but inconsistent experience with offsetting at the federal, provincial and municipal level with respect to fish habitat, wetlands and species at risk. Several corporations have voluntarily sought to offset their impacts on biodiversity.

There is interest in several jurisdictions in expanding the use of offsetting, particularly with respect to caribou and boreal forest restoration and native grasslands. This session will explore the Canadian experience to date and seek to draw lessons about how offsetting might effectively be used in the future.

#### Presenters:

- **Carol Stefan**, City of Calgary, "Municipal Offsets: Balancing conservation and responsible development"
- **Gillian Kerr**, Royal Roads University, "Alberta's learning's on MBIs in use and in theory"
- **Karen Stefanyk**, BC Ministry of Environment, "BC's Environmental Mitigation Policy: Challenges and Opportunities for Mitigation and Offsets"
- **Valerie Dupont**, University Laval, "The Act respecting the conservation of wetlands and bodies of water: Critical legal analysis of wetland compensation funds in Quebec"

#### PREMIER SPONSORS:



**UNIVERSITY OF ALBERTA**  
Alberta Land Institute



**ALBERTA INNOVATES**

#### SUPPORTING SPONSORS:

**SSHRC**  **CRSH**  
Social Sciences and Humanities Research Council of Canada  
Conseil de recherches en sciences humaines du Canada

**Teck**

**ConocoPhillips**

**REGISTER TODAY:** [ALBERTALANDUSE.CA/LU21](https://albertalanduse.ca/lu21)