

Making Room For Wetlands: Coastal Carbon Edition

Image: Belcher Street Marsh Managed Dyke Realignment and Tidal Wetland Restoration Site

Credit: CBWES Inc.

Project Overview:

Making Room for Wetlands (MRFW): Coastal Carbon Edition will apply the MRFW managed dyke realignment and tidal wetland restoration framework at underutilized, fallow and/or poorly draining dykeland sites in the Bay of Fundy. The project will restore and/or enhance tidal wetlands by improving drainage and/or removing or realigning dyke and aboiteau infrastructure from dykeland parcels.

This climate change adaptation and restoration project will increase carbon storage and reduce greenhouse gas (GHG) emissions on poorly drained and fallow agricultural lands. The project will work to improve the resilience of the surrounding communities, infrastructure and agricultural lands to climate change by reducing flood and erosion risk. The restoration of tidal wetlands will also increase biodiversity and priority habitat. The project has 5 main goals:



Credit: CBWES Inc.

Belcher Street Marsh Managed Dyke Realignment and Tidal Wetland Restoration Site (Year 4 post-restoration, July 2021)

1. Improve the resilience of Nova Scotia’s dykeland systems to the impacts of climate change;
2. Reduce GHG emissions in agricultural dykelands and increase carbon storage;
3. Increase total area of tidal wetland in the Inner Bay of Fundy to increase biodiversity and additional co-benefits;
4. Increase permanency of carbon stocks by providing room for the natural movement of tidal wetlands; and
5. Build an inventory of potential future tidal wetland restoration sites.

Location: Hants, Cumberland, Counties, NS

Project Funding: Nature Smart Climate Solutions Fund (Environment and Climate Change Canada), Green Fund (Nova Scotia Department of Environment and Climate Change), Nova Scotia Public Works, Nova Scotia Department of Agriculture

Funding Years: 2022-2027

This project was undertaken with the financial support of:
Ce projet a été réalisé avec l'appui financier de :



Credit: TCA

Converse Marsh Managed Dyke Realignment and Tidal Wetland Restoration Site (Year 5 post-restoration, July 2023)

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Rationale:

Approximately 80% of the tidal wetlands in the Bay of Fundy have been lost. This has resulted in loss of biodiversity and critical habitat, increased GHG emissions, and loss of other ecosystem services provided by tidal wetlands.

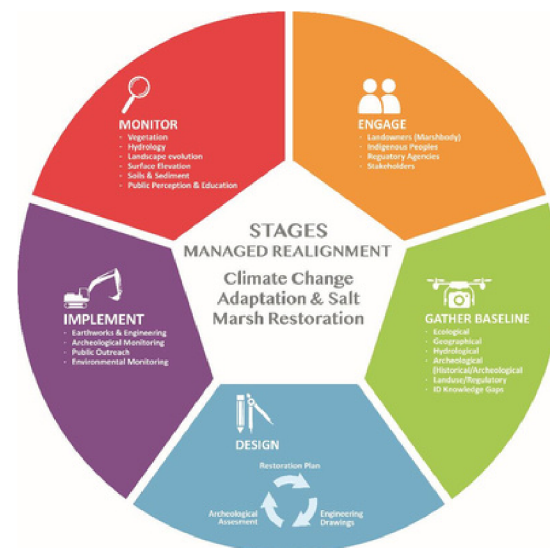
The dykeland system in Nova Scotia is currently undergoing upgrades through the Nova Scotia Department of Agriculture (NSDA) led Dykeland System Upgrade Project (DSUP) to address failing infrastructure in the face of climate change. The *Making Room for Wetlands* project works on sites identified by NSDA, but that are not able to be addressed through DSUP, to both protect dykeland communities and restore tidal wetlands and their associated benefits and ecosystem services.

What to Expect:

All sites were identified in consultation with NSDA. Preliminary baseline data collection is currently underway at some sites. Field data being collected includes biological and physical processes, existing ecosystem conditions, and archaeological assessments.

There are currently **no approved designs for any sites**. Baseline data and analysis will support the decision-making process to design the most appropriate management option for each site, maximizing benefits and minimizing disturbance.

Once baseline data has been collected and designs appropriate to a site have been approved, the design can be applied, and the tidal wetland restoration process can begin (on applicable sites). The sites will then be monitored in the initial years post-restoration to make sure that the design is working as planned, introduce adaptive management to address unforeseen issues, and determine how the site is contributing to the overall project goals.



MRFW Framework for Managed Dyke Realignment and Tidal Wetland Restoration

Interested in learning more about the project and successful *Making Room for Wetlands* case studies?

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