Flood meadows in the Marais Poitevin, France

Year of issue

2025

Summary

Located in Pays de la Loire and Nouvelle-Aquitaine, the Marais Poitevin is France’s second-largest wetland. About 2,148 ha of municipal flood meadows (“marais communaux”) are collectively grazed and managed, delivering flood storage, groundwater recharge and pollutant removal. Management agreements launched in 1989 and renewed in 2003 and 2017 sustain traditional, low-intensity mixed grazing and biodiversity. Since the 2010s, hydraulic governance has been reinforced by EPMP’s “Contrats de marais”, which define seasonal water-level bands and fund small hydraulic works, habitat restoration and monitoring within territorial contracts (CT 2023–2025). Real-time hydrometric tracking is provided through the SIEMP portal. Today, 23 communal marshes across 23 municipalities host roughly 3,600 cattle and horses each season; in 2019, 121 farmers grazed 2,113 ha. In November 2023 the wider Marais Poitevin (69,034 ha) was designated a Ramsar Site, and since October 2024 the LIFE “Maraisilience” project (2024–2029) has been mobilising stakeholders to co-design climate adaptation and a climate observatory. These updates confirm the flood-meadow system’s continued role in water regulation and nature conservation under modern, multi-partner governance.

Photo Gallery



Location

46.3, -0.8

Project

NWRM

National ID

France_02

Sector

Hydromorphology

Installation Date

1989

Implementation status

Ongoing

Contact

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Overview

Location of the project

The Marais Poitevin is located in Western France. This is the second largest wet area in France (about 100 000 ha). It is astride two administrative regions (Pays de la Loire and Poitou-Charentes) and three Département (Vendée, Deux-Sèvres and Charente-Maritime). It is located between the cities of La Roche-sur-Yon (to the North), La Rochelle (to the South) and Niort (to the East). The Atlantic Ocean is located to the West of the Marais Poitevin. Common floodmeadows cover about 2000 ha. They are located near the Northern and Southern borders of the Marais Poitevin.

Country

France

NUTS2 Code

Pays de la Loire

Sponge measures implemented in the case study

Floodplain restoration and management

Meadows and pastures

Wetland restoration and management

Objectives

Primary: regulate hydrological cycle & flows, conserve biodiversity; secondary: purification, flood mitigation across ~2,000 ha, with winter–spring inundation.

Involved partners

Authority type	Authority name	Authority role	Comments	Authority responsibility
Nature park	Parc naturel régional du Marais poitevin	Implementation	The Parc naturel régional du Marais poitevin is a public organisation bringing together local authorities (93 municipalities, 3 Départements and 2 Régions) of Marais Poitevin. All these authorities are co-signatory of a Territory Agreement which defines strategic guidelines and missions of the Parc. Current areas of activities of the Parc are: natural ressources (agri-environment, protection of biodiversity and ecosystems...), economy and land planing (tourism, architecture, urbanism...), culture and heritage, education. The park is involved in technical supports (management of breading and health issues on the common floodmeadows...)	Responsible
Local water authority	Municipalities	Other	23 Municipalities	Responsible

Authority type	Authority name	Authority role	Comments	Authority responsibility
NGO	Environmental associations (LPO and WWF)	Financing	The LPO (Ligue pour la Protection des Oiseaux) and WWF-France (World Wild Founds - France) are two environmental associations. They are involved in the support of municipalities (15 €/ha/year of common floodmeadow, that is to say 450 000 € for 15 years) They also bring technical support to municipalities (for environmental issues such as biodiversity for instance)	Supporting
NGO	LPO, association de Défense de l'Environnement en Vendée, l'Union des Marais Mouillés, Conservatoire des Espaces Naturels Poitou-Charentes, WWF-France	Other	They are public or private organisations (sometimes local) working on environmental issues. They are all involved in the Life programme with the PIMP.	Supporting

Site Information

Climate Zone

Cool temperate moist

Precipitation

867.00 mm

Temperature (°C)

12.80 °C

Elevation range

3 m

Slope range

0-1%

Vegetation class

Extensive wet grasslands/flood-meadows with micro-relief (“baisses” wet hollows, “belles” dry hummocks), clayey soils; communities of grasses/sedges/rushes with sub-saline meadow species such as Ranunculus ophioglossifolius favored by extensive grazing.

WFD Ecological status

Moderate

WFD Chemical status

Failing to achieve good

Water quality status

Diffuse nitrates & pesticides, eutrophication; Ludwigia invasions; hydromorphology & water-level regulation constraints; quantitative deficits in dry years.

Design and Implementation

Project scale

Meso

Project scale specifications

23 common meadows, 2148 ha. A network of communal meadows across multiple municipalities, governed by park/municipal/EPMP instruments (“contrats/protocoles de marais”) at sub-basin scale.

Project area

2148

Area subject to Land use change or Management/Practice change (ha)

2148.00 ha

Size

2148.00

Size unit

ha

Principles

Bring together agricultural/economical issues and environmental issues.
Responsibility of farmers (administrative procedures for farmers in order to avoid problems in the common meadows).
Common meadows should provide incomes to municipalities.

Factor constraints

Common floodmeadows are used as a pasture for 10 centuries. Pasture by multi-specific herd (cattle, horses, gooses) went on because it is a good way to valorize the produced biomass and to maintain ecosystems and landscapes. Soil structure (micro relief) prevented from using machinery for mowing and ecosystem services (flood protection, water purification, role in water circle...) would have been lost if such areas were used for cropping. They are common land owned by municipalities.

Financing

Financing authorities

Authority name	Type of funding	Comments
LPO and WWF	Other	Funds from environmental associations (LPO and WWF): 15 €/year for each hectare of common floodmeadow (450 000 € for the 15 years of the agreement). These supports are for the involved municipalities.
Municipalities	Local funds	—
European Union	EU-funds: Rural development funds	Agri-environmental payments for farmers and for the municipalities since 1993 (or 1997 for some of the floodmeadows).

Compensations

Oui

Compensations basis information

Common meadows are not rented by farmers. However, farmers have to pay a tax to municipalities when they benefit from services such as the health monitoring of the herd, maintenance of common meadows, fences, etc.). Amount of the tax : about 280 €/head

Farmers benefit from the CAP subsidies (including agro-environmental measures) in exchange for respect of agri-environmental and climate good practices.

Policy and Governance

Policy description

For 10 centuries, these areas were used as pastures by local farmers. Local environmental conditions (floods, presence of salt in the soil, etc.) and management by humans (pasture...) created very specific ecosystems. In the 1970s and 1980s, only a few breeders used the meadows. Ecosystems as well as all services provided by these common meadows (regulation of water cycle, flood protection...) were endangered. Municipalities (owners of the common meadows) discussing with the Parc Naturel Régional du Marais Poitevin in order to change the management of meadows. An management agreement was found in 1989.

Land ownership

Municipalities own the flood-meadows (“marais communaux”), managed collectively with farmers under agreements since 1989.

Policy targets

Increase Water Storage

Groundwater Recharge

Pollutants Removal

Improved Biodiversity

Oher Societal Benefits

Target remarks

Regulation of hydrological cycle and water flow,
Biodiversity and gene-pool conservation in riparian areas,
Natural assimilation (purification) of effluents through dilution, dispersion, and physicchemical processes,
Flood control and flood risk mitigation.

Pressure remarks

The main pressure was the abandonment of floodmeadows. They were not used any more as pastures. This was a pressure for ecosystems.

Policy impact

Directive	Relevant impact
Floods Directive identified pressure	Economic Activity
Floods Directive identified pressure	Rural Land Use
Floods Directive identified pressure	Property
Floods Directive identified pressure	Other environmental impacts

Part of a wider plan

Oui

Wider plan

Wider plan focus	Name	Comments
Environment & Biodiversity	Life Nature	Life Nature Project for "the conservation of the most remarkable habitats and species of Marais Poitevin" for the period 2004-2008. In the framework of this project, one action on common floodmeadows has been developed (partnership between the PIMP, LPO, WWF and 16 municipalities). The objective of this action was to maintain and develop floodmeadows in order to ensure the hydrological equilibrium of Marais Poitevin, to improve its role of water purification and to preserve biodiversity and landscapes. Partners supported municipalities (technical and financial supports) for: - Carrying out management plans in order to plan future development and maintenance projects. - Ecological maintenance of floodmeadows in order to improve their ability to welcome remarkable species. - Ecological inventories and scientific monitoring in order to assess the relevance of projects and their benefits for the society. - Awareness actions for inhabitants and users about floodmeadows, their management and their richness.
Environment & Biodiversity	Natura 2000	Since 1993
Agriculture	Common Agricultural Policy	Launched in 1962, the EU’s common agricultural policy (CAP) is a partnership between agriculture and society, and between Europe and its farmers. The meadows are managed in compliance with the agri-environmental and climate measures of the CAP.

Public consultation

Oui

Consultation activities

Activity stage	Activity type	Comments
Screening phase	Awareness actions	Awareness actions (for example in the framework of the Life programme) for inhabitants and users.

Has contractual arrangements

Oui

Contractual arrangements

Name	Comments
Agreement for an agri-environmental management	Since 1989, 18 municipalities have undertaken to maintain common meadows and to respect environmental clauses. In compensation, municipalities receive financial and technical supports.
agri-environment commitment	Since 1993, common floodmeadows are subject to agri-environmental measures (2nd pillar of the CAP)

Impacts and Monitoring

Monitoring System

Monitoring requirements

Farmers are responsible for the monitoring of their herds. Health monitoring, animal identification, etc. is the responsibility of the Parc with the cooperation of farmers.

Maintenance

Maintenance requirements

Maintenance of common meadows is the responsibility of municipalities (with the support of the Parc)

Impact Assessment Methodology

Biophysical impact assessment method

No assessment

Cost assessment method

No assessment

Socio-economic Impacts

Benefits and co-benefits

Economic benefits:
- For municipalities: source of incomes
- For farmers: common meadows are used as pastures
- For inhabitants: increase of the value of neighboring goods (houses…) - Tourism, etc.

Social benefits:
- Very important for creating social links between stakeholders (farmers, managers, elected representatives, inhabitants, NGOs…)

Biophysical impacts: Hydrology

Hydrological effects

Common floodmeadows play an important role in the hydraulic management of the Marais Poitevin. A system of channels, sluices, etc. is used in order to manage the water level.

Information on increased groundwater level

During the winter season, water is stored at the surface of the common meadows. This contributes to the recharge of groundwater reserves.

Ecosystem water supply

Water provision to deliver water services to the economy both for drinking and non-drinking purposes.

Information on ecosystem flood control volume

Flood security and protection

Information on reducing flood risks quantity

Floodmeadows store a large amount of water (surface but also groundwater). This helped avoiding floods in some inhabited areas.

Biophysical impacts: Biodiversity

Improved biodiversity

Oui

Information on improved biodiversity

Very important role for biodiversity (very specific fauna and flora).
Amenities (associated to habitat protection): fish and plants, tourism, recreation, and others.

Increased permanent biomass

Biomass production

Biophysical impacts: Water & Soil Quality

Water quality overall improvements

Positive impact-WQ improvement

Information on water quality overall

Floodmeadows contribute to the purification of water. This is particularly important for shellfish farming downstream the Marais Poitevin. Benefits of improved coastal water quality and ecological status for a sustainable commercial production of shellfish with human health and welfare values.

Lessons Learned

Key lessons

The Marais Poitevin is the 2nd largest wetland in France. About 2000 ha of floodmeadows are owned by local municipalities and commonly managed by local farmers. Such meadows play an important role for water regulation. For instance, they contribute to the storage of water during flood events, to groundwater recharge, to the removal of pollutants, etc. In the 1980s, in reaction to their destruction, management agreements between municipalities, the Parc Interrégional du Marais Poitevin and environmental NGOs as well as agreements between municipalities and farmers were signed. They reinforce the traditional agri-environmental management (pluri-specific pastures: cattle, horses, gooses) in order to preserve the numerous services provided by the Marais Poitevin.

It seems very important to establish a relationship of trust between stakeholders (particularly between farmers, municipalities and the Parc Interrégional du Marais Poitevin). This is time- and energyconsuming (many dialogues, to make sure that everybody can give its opinion…) but it helps anticipating problems and finding solutions and it improves the acceptability of the measure through time and through difficulties which may occur. Building and maintaining social links (also with inhabitants and other stakeholders) should not be neglected.

Barriers

Barrier type	Barrier role	Comments
Attitude of relevant stakeholders	Main barrier	Sanitary problems at the beginning. Common meadows were seen as responsible for giving pests to cattle.

Drivers

Driver type	Comments
Other	Common floodmeadows are used as a pasture for 10 centuries. Pasture by multi-specific herds (cattle, horses, gooses) went on because it is a good way to valorize the produced biomass and to maintain ecosystems and landscapes. Soil structure (micro relief) prevented from using machinery for mowing and ecosystem services (flood protection, water purification, role in water circle...) would have been lost if such areas were used for cropping. They are common land owned by municipalities.

Success factors

Success factor type	Success factor role	Comments
Successful coordination between authorities	Main factor	Close relationship and trust between farmers, municipalities and the Parc. This is helped by the governance scale (important role of municipalities, direct interaction between municipalities and farmers...)

Cost effectiveness

No assessment

Flexibility / Adaptability

This case study is closely linked to the very specific property rights regimes of flood meadows (common lands owned by inhabitants of municipalities).

Transferability

Transferable to lowland polder/wet-meadow systems with public/communal tenure, stakeholder consensus, and controllable hydraulics. Caution: property-rights context, invasive-species pressure, and multi-actor water-level trade-offs.

Sources

Sources

Recueil d'expériences: les communaux du Marais Poitevin

Marais communaux du Marais poitevin

Literature Review: Current Knowledge on Wet Grasslands of the Marais Poitevin