Wise Use of Floodplains
EU LIFE-ENVIRONMENT PROJECT

The Wise Use of Floodplains Case Study:

Somerset Levels and Moors Parrett Catchment

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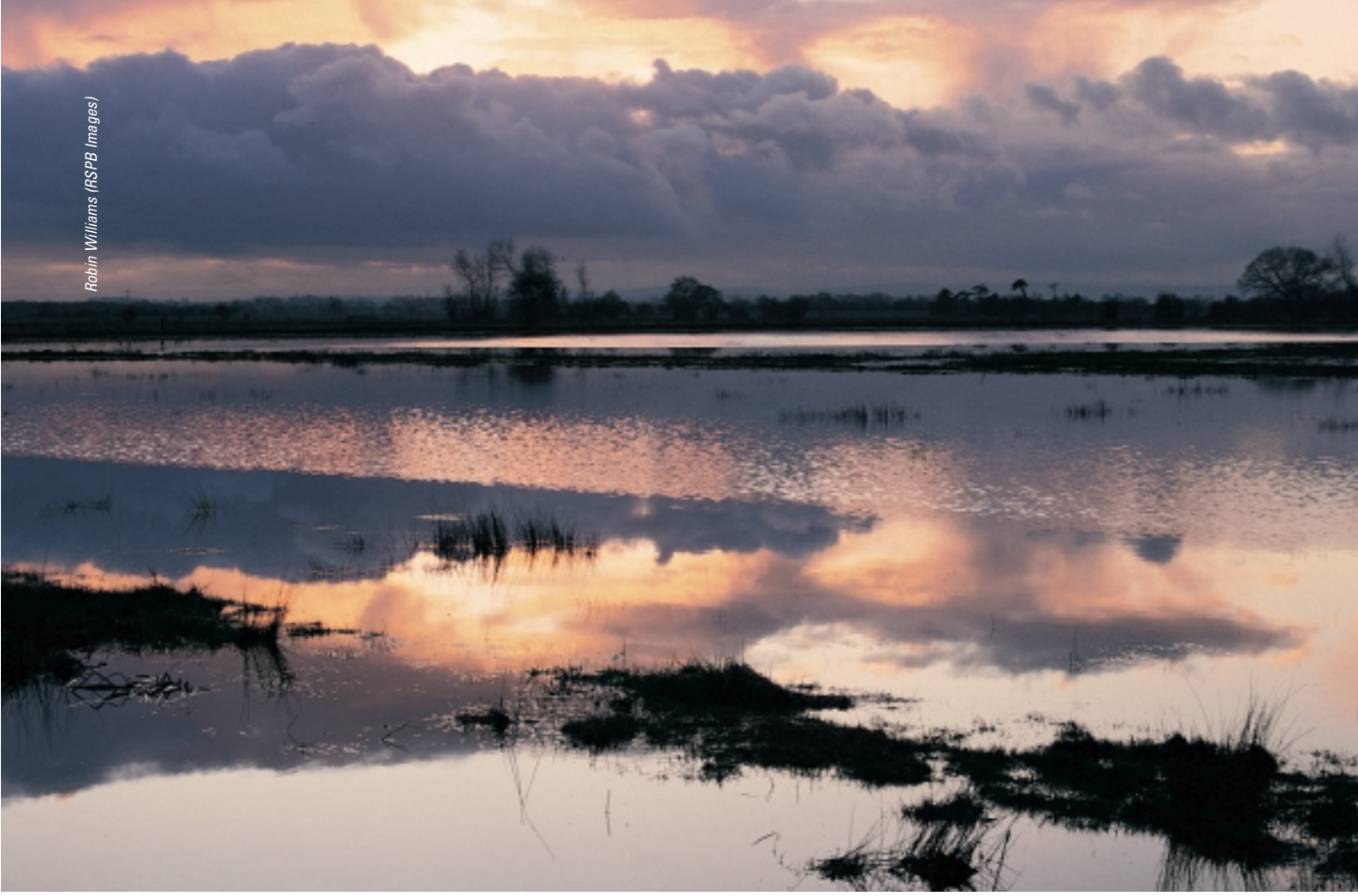

Robin Williams (RSPB Images)

The Somerset Levels and Moors project has focussed on the Parrett Catchment, which represents half of this area of highly engineered floodplain. The area has a long history of conflict between stakeholders and a number of new challenges. As a result, the Wise Use of Floodplains project (WUF) has targeted creating a new consensus on how water is to be managed, in particular looking at new ways to achieve sustainable benefits for all stakeholders. The project has worked very closely with the Parrett Catchment Project (PCP), aiming to encourage integrated catchment management, and the Water Level Management Action Plan (WLMAP), Environment Agency strategy for the day-to-day management of water in the Levels and Moors.

Somerset Levels and Moors Stakeholders

- Environment Agency
- English Nature
- RSPB
- Somerset County Council
- Levels & Moors Partnership (LAMP)

This work was made possible through the award of a 50% grant from the EU-LIFE Environment programme.

The WUF project aims to demonstrate how floodplains can contribute to the sustainable management of water within river basins. In doing so, the results will contribute to the effective implementation of the new EU Water Framework Directive. It is a trans-national partnership involving government departments, research organisations and non-government organisations (NGOs), in six project areas throughout England, Scotland, Ireland and France.

The project aims:

- to demonstrate methods to appraise the economic, social and environmental effects of flood and coastal plain wetland restoration and management options
- to determine how European and national policies might need to change to facilitate the restoration of flood and coastal plain wetlands
- to facilitate 'on the ground' floodplain restoration across Europe through dissemination of guidelines and project results.

The Parrett Catchment

The Parrett Catchment is the largest river system in Somerset, covering 50% of the county and containing five major rivers: the Parrett, Isle, Tone, Yeo and Cary.

The area is predominantly rural with 70% grassland and 30% arable (cereals and forage maize). The Levels & Moors covers 64,000 ha and is the most important remaining lowland wet grassland in England. It is a unique cultural landscape with farmland criss-crossed by numerous ditches, and its communities are located on ridges and 'islands' of higher ground. The Levels are a coastal barrier of marine clays, which lie about 6 m above mean sea level. In contrast, the Moors are inland and ground levels can be as much as 6 m below peak tide levels. The Moors are prone to frequent flooding and act as temporary reservoirs during large flood events. About 10% of the area is designated as a wetland of outstanding ecological importance in a European context (a Special Protection Area).

The Somerset issues and focus

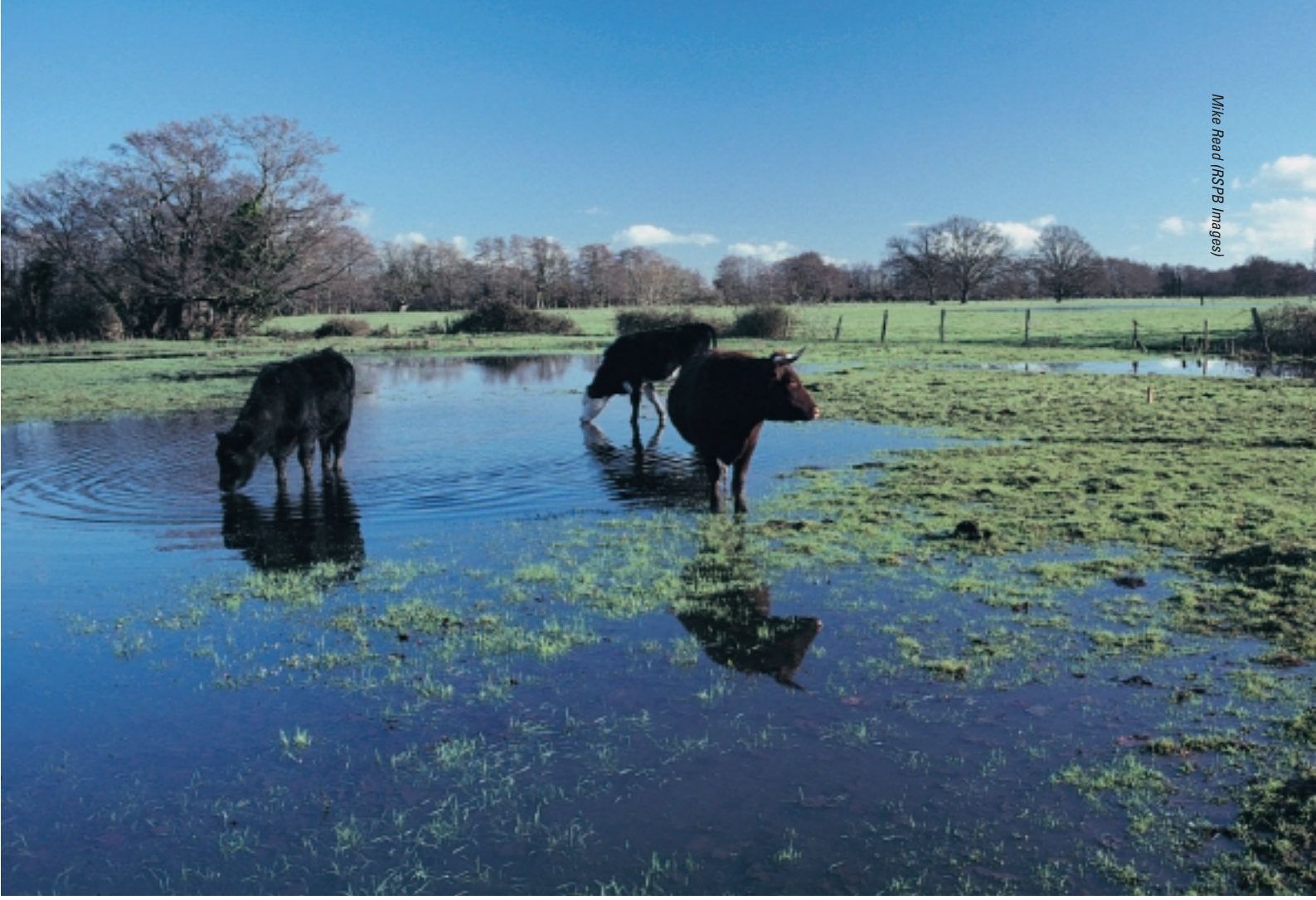
The new challenges for Somerset include recent severe floods and the general crisis in agriculture, exacerbated by global warming and sea level rise. There is also a drive to sustainable development and integrated rural development, as well as new legislation emerging from Europe, such as the Water Framework Directive. All of these factors affect the area in different ways. Add in the various interests of all the stakeholders and the urgent need for an integrated approach to sustainable water management is evident.

The project has generated the best debate on water management in 30 years, creating a new consensus between conservation, farming, drainage and rural community views. Settlements and strategic assets must be protected from flooding while securing a farmed freshwater wetland environment that restores and maintains biodiversity.

The project area looked at the common ground amongst stakeholders:

- Deep, prolonged floods benefit no-one.
- Whole sectors benefit from better flood management.
- Wetland habitats should be protected from tidal inundation.
- A combined approach is needed as no single solution will work.

Andrew Hay (RSPB Images)



Somerset area project

The project has worked closely with an existing and unique forum for local democracy, called 'The Levels & Moors Partnership' (LAMP). (LAMP serves 86 parish councils who represent community and organisational interests.) Participatory workshops were held to encourage stakeholders to share views and address problems jointly. The ideas developed through a gradual process, ensuring all organisations and sectors were involved equally. This made its progress unpredictable, but very creative. The objectives outlined through this process were:

- generating new options for the sustainable management of flood events across the catchment and annual water levels on the floodplain
- testing methods to find out what are the economic, social and environmental costs and benefits of different options for managing flood events and floodplain water levels
- finding out how the policies of the government and European Union need to be changed to promote sustainable management of the catchment and its floodplain
- passing findings to managers of river catchments across Europe to enable their governments to implement the new EU Framework Directive
- commissioning research to provide up-to-date facts and information to advance the debate.

Project achievements and outputs

Eleven potential solutions to manage flood events have been agreed. Each of these solutions or 'components' as they are being called locally has had detailed analysis of policy barriers and opportunities and appraisal of economic cost and benefit and will need to be considered together and not individually. A statement of the 'Common Ground' has been agreed between all stakeholder interests, including an integrated response to the Environment Agency's local Review of Flood Management Practices. This process has enhanced understanding among stakeholders of the implications of achieving 'favourable condition' of the Special Protection Area. The project has achieved these important changes to integrated thinking through using:

- an enhanced hydrological model and digital terrain models to predict potential floodwater storage
- an up-to-date socio-economic profile of the Parrett floodplain
- the Parrett Catchment Project Action Strategy, which was presented to the Rt Hon Elliott Morley, Minister

for Fisheries and the Countryside (MAFF now DEFRA), at a major conference held in Somerset in February 2000.

The future remains in the hands of all of the stakeholders involved to make real the Integrated Catchment Management Plan (ICMP). Maintenance and further enhancement of stakeholder dialogue is essential to the long-term success of the ICMP and its goal of sustainable management of water. The Parrett Catchment project will:

- initiate a debate among stakeholders on the future of farming in relation to environmental change
- analyse the practicalities and economics of creating washlands on the floodplain and mid-catchments
- produce benchmarks (or practical sustainability indicators) to monitor the effectiveness of changes in water and land management
- examine the economics of achieving favourable condition of the Special Protection Area on the Levels and Moors
- produce the philosophy and design for an Integrated Catchment Management Plan for the Parrett System
- design a 'catchment-care' programme to maintain stakeholders' involvement in the management of their catchment.

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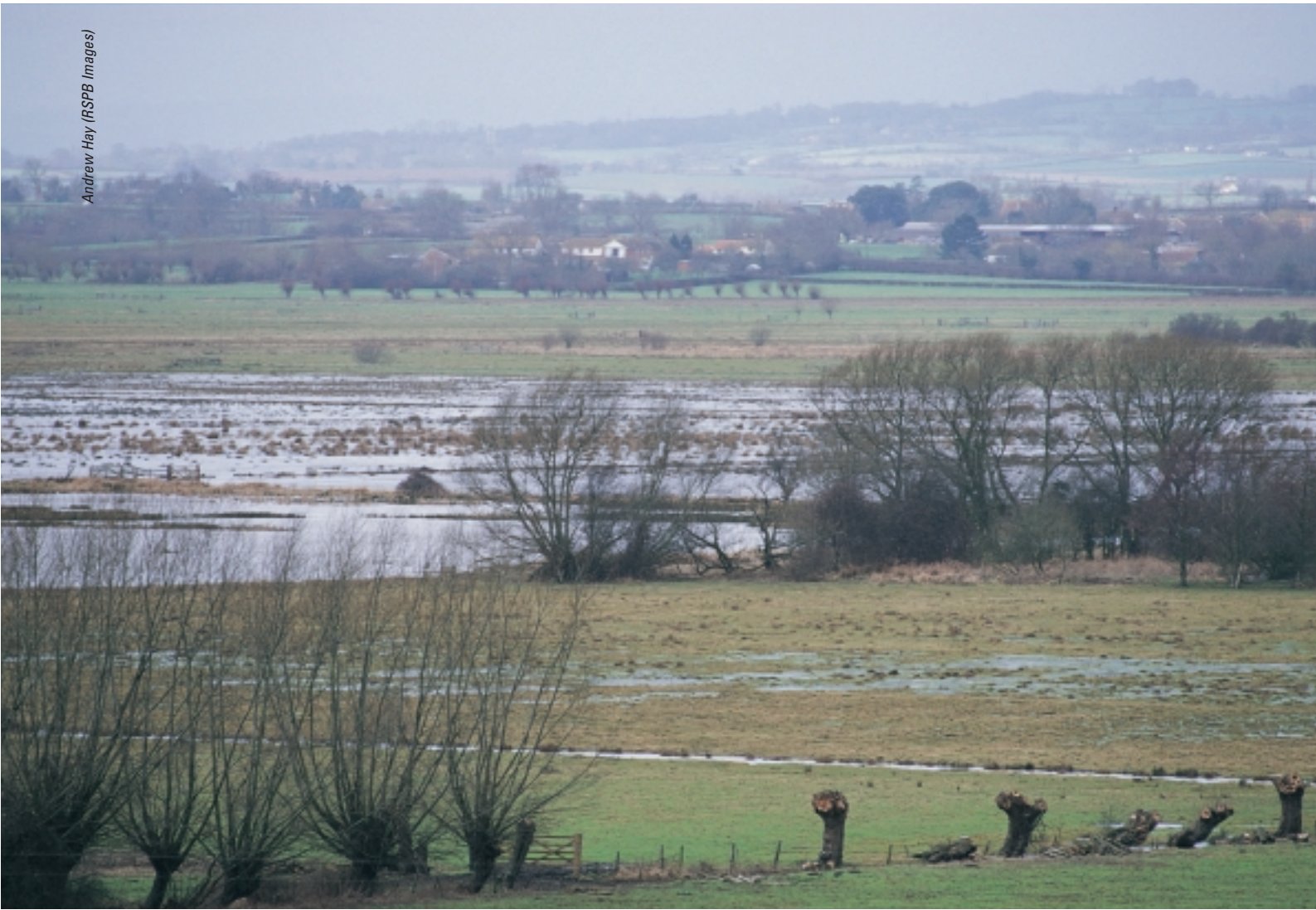

Andrew Hay (RSPB Images)

Contacts and Further information:

The Wise Use of Floodplains project is a trans-national partnership, in six project areas throughout England, Scotland, Ireland and France. The objective of the project is to demonstrate how floodplain wetlands could contribute to the sustainable management of water resources within river basins. It highlights the importance of organisations and communities working together to create a holistic and sustainable approach to the management of water at catchment level and an important aim is to assist Member States on the implementation of the Water Framework Directive. For further information, please refer to the 'Wise Use of Floodplains Overall Guidance Note'.

For further information regarding this project, please refer to the sponsoring partners and organisations listed below:

Agence de l'Eau www.eaufrance.com
Birdwatch Ireland www.birdwatchireland.ie
Centre for Ecology and Hydrology www.nwl.ac.uk/ih
English Nature www.english-nature.org.uk
Environment and Heritage Service www.nics.gov.uk/ehs
Environment Agency www.environment-agency.gov.uk
Institution Interdepartmentale pour l'Aménagement du Fleuve Charente
LPO www.lpo-birdlife.asso.fr
Ministère de l'Aménagement du Territoire et de l'Environnement www.environnement.gouv.fr
Conseil Regionale de Poitou Garonne
Rivers Agency www.dardnt.gov.uk
RSPB www.rspb.org.uk
SEPA www.sepa.org.uk
SNIFFER www.sniffer.org.uk
Thames Water www.thameswater.co.uk
WWF www.panda.org/europe/freshwater

Disclaimer:

The project wishes to stimulate debate on the wise use of floodplains. However, the views expressed in this document do not necessarily reflect the opinion of all the Wise Use of Floodplain partner organisations.

Wise Use of Floodplains technical reports:

Hydrological Impact Assessment: *Modelling the impacts of floodplain restoration*
Participatory Processes: *A tool to assist the wise use of catchments.*
Policy Analysis: Analysing Barriers to Change: *A tool to assist river basin planning*
Options Appraisal: *Lessons for floodplain appraisal*

Further publications available from website or on CD from partner organisations:

Beneficial use of floodplains: *Identification of appraisal techniques* (RPA)
Participatory techniques for land use planning *– a review* (Mark Toogood)
Identification of techniques for appraisal of floodplain wetlands (RSPB)
Analysing barriers to change methodology (WUF)
A review of twelve WWF river restoration projects across Europe (Christoph Zockler)
Policy and economic analysis of floodplain restoration in Europe *– Opportunities and obstacles* (Tim Jones)
Hydrological model scoping study (CEH)
Cherwell catchment restoration scenarios (University of Southampton)
Hydrology guideline: *Summary report to modelling the impacts of floodplain restoration*

For further information, please visit **www.floodplains.org** or refer to the partner organisations listed above.

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