

*Ramsar*  
*Handbooks*  
4<sup>th</sup> edition

## Handbook 19

# Addressing change in wetland ecological character

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## About the Convention on Wetlands

The Convention on Wetlands (Ramsar, Iran, 1971) is an intergovernmental treaty whose mission is “the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”. As of October 2010, 160 nations have joined the Convention as Contracting Parties, and more than 1900 wetlands around the world, covering over 186 million hectares, have been designated for inclusion in the Ramsar List of Wetlands of International Importance.

## What are wetlands?

As defined by the Convention, wetlands include a wide variety of habitats such as marshes, peatlands, floodplains, rivers and lakes, and coastal areas such as saltmarshes, mangroves, and seagrass beds, but also coral reefs and other marine areas no deeper than six metres at low tide, as well as human-made wetlands such as waste-water treatment ponds and reservoirs.

## About this series of handbooks

This series has been prepared by the Secretariat of the Convention following the 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup> meetings of the Conference of the Contracting Parties (COP7, COP8, COP9 and COP10) held, respectively, in San José, Costa Rica, in May 1999, Valencia, Spain, in November 2002, Kampala, Uganda, in November 2005, and Changwon, Republic of Korea, October-November 2008. The guidelines on various matters adopted by the Parties at those and earlier COPs have been prepared as a series of handbooks to assist those with an interest in, or directly involved with, implementation of the Convention at the international, regional, national, subnational or local levels. Each handbook brings together, subject by subject, the various relevant guidances adopted by Parties, supplemented by additional material from COP information papers, case studies and other relevant publications so as to illustrate key aspects of the guidelines. The handbooks are available in the three working languages of the Convention (English, French, and Spanish).

The table on the inside back cover lists the full scope of the subjects covered by this handbook series at present. Additional handbooks will be prepared to include any further guidance adopted by future meetings of the Conference of the Contracting Parties. The Ramsar Convention promotes an integrated package of actions to ensure the conservation and wise use of wetlands. In recognition of these integrated approaches, the reader will find that within each handbook there are numerous cross-references to others in the series.

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# Handbook 19

## Addressing change in wetland ecological character

Addressing change  
in the ecological  
character of Ramsar  
Sites and other  
wetlands



This 4<sup>th</sup> edition of the Ramsar Handbooks replaces the series published in 2007. It includes relevant guidance adopted by several meetings of the Conference of the Parties, in particular COP7 (1999), COP8 (2002), COP9 (2005), and COP10 (2008), as well as selected background documents presented at these COPs.

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## Acknowledgements

Special thanks are extended to Dr Bill Streever and a Scientific and Technical Review Panel (STRP) Working Group for their preparation of the draft guidance on restoration, adopted as Resolution VIII.16 by Ramsar COP8. The scenarios and guidance on consideration of the deletion or restriction of the boundaries of a listed Ramsar Site were drafted by the Secretariat with the help and assistance of members of the 2002-2005 STRP, and special thanks go to Dave Pritchard for his input to this work. Much of the material added from 2006-2008 and COP10 was also developed by Dave Pritchard in the context of the STRP's work in this area.

Material concerning a global approach to avoiding, minimizing and offsetting wetland loss was derived from discussions at a workshop convened at the IUCN World Conservation Congress Forum in Barcelona, Spain, in October 2008, by The Nature Conservancy (TNC) and involving expert representatives of Wetlands International, TNC, the World Bank, Shell International Corporation, the Ramsar Secretariat and the STRP (represented by Royal Gardner).

All Resolutions of the Ramsar COPs are available from the Convention's Web site at [www.ramsar.org/resolutions](http://www.ramsar.org/resolutions). Background documents referred to in these handbooks are available at [www.ramsar.org/cop7-docs](http://www.ramsar.org/cop7-docs), [www.ramsar.org/cop8-docs](http://www.ramsar.org/cop8-docs), [www.ramsar.org/cop9-docs](http://www.ramsar.org/cop9-docs), and [www.ramsar.org/cop10-docs](http://www.ramsar.org/cop10-docs).



Unwise use of wetlands: a saltmarsh suffering significant change in ecological character. *Photo: WWF/ H. Jungius.*

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## Getting the most out of this Handbook

### The Handbooks in general

The purpose of the Ramsar Handbooks is to organize guidance material from relevant decisions adopted by the Contracting Parties over the years, according to subject themes. This helps practitioners to implement the internationally-agreed best practice in a way that is convenient to handle and more naturally matches their own everyday working environment.

The intended readership includes national and local staff of the government departments, ministries and agencies that act as Administrative Authorities for the Ramsar Convention in each country. Equally important users in many cases are managers of individual wetland areas, as some aspects of the guidance relate specifically to site management.

The Ramsar guidance has been adopted by member governments as a whole, and increasingly it addresses itself to the crucial roles of other sectors beyond the “environment” or “water” sectors. It is thus very important that these Handbooks should be used by **all** whose actions may benefit from or impact upon the wise use of wetlands.

A vital first step in each country therefore is to ensure adequate **dissemination** of these Handbooks to all who need or can benefit from them. Copies are freely available in PDF format from the Ramsar Secretariat in three languages on CD-ROM or by download from the Convention website ([www.ramsar.org](http://www.ramsar.org)).

Other early steps would be, in each particular context, to **clarify** lines of responsibility and **actively check** how to align the terms used and approaches described with the reader’s own jurisdiction, operating circumstances, and organizational structures.

Much of the text can be used in a **proactive sense**, as a basis for framing policies, plans and activities, sometimes by simply importing relevant sections into national and local materials. It can also be used in a **reactive sense** as a source of help and ideas for responding to problems and opportunities, navigating subjects by the need of the user.

Cross-references, original sources, and further reading are liberally cited: the Handbooks will often not be the “last word”, but they provide a helpful “route-map” to further sources of information and support.

**Strategic direction** in the Ramsar Convention is provided by the Strategic Plan, the latest version of which was adopted by COP10 in 2008 for the period 2009-2015. All thematic implementation frameworks, including the Handbooks, sit within the context of the goals and strategies of this Plan and the priorities it highlights for the period covered.

In this fourth edition of the Handbooks, additions to and omissions from the text of the original guidelines, required by the results of COP8, COP9 and COP10, are shown in square brackets [...].

The Handbook series is updated after each meeting of the Conference of the Parties, and feedback on user experience is always appreciated in helping to refine each new edition.

### **This Handbook (Addressing change in wetland ecological character)**

While maintenance of ecological character is an objective for all wetlands, Goal 2 of the Strategic Plan sets out aspects of it concerning Ramsar Sites in particular. Strategy 2.4 of the Plan on “Ramsar Site ecological character” includes the following particularly relevant Key Result Areas (to be achieved by 2015):

2.4.ii Management objectives, as part of management planning, for ecological character maintenance established for all Ramsar Sites;

2.4.v Statements of ecological character finalized for all Ramsar Sites and used as a basis for implementing Article 3.2 of the Convention.

Similarly, Strategy 2.6 on “Ramsar Site status” includes the following KRA:

2.6.i All Parties with Ramsar Sites whose ecological character has changed, is changing or is likely to change owing to human-induced actions to have reported this to the Ramsar Secretariat, in line with the requirements of Article 3.2 of the Convention.

In respect of other wetlands, Strategy 2.7 includes KRA 2.7i which states: “Ramsar guidance on the maintenance of ecological character to be have been applied with a priority upon recognized internationally important wetlands not yet designated as Ramsar Sites”.

The text in this Handbook is drawn mainly from Ramsar Resolutions and their Annexes. The substance of it thus reflects formal decisions adopted by the Conference of the Contracting Parties. The Handbook also brings together additional information relevant to this issue, from a COP Information Paper and other resource materials. The views expressed in this additional information do not necessarily reflect the views of the Ramsar Secretariat or the Contracting Parties, and such materials have not been endorsed by the Conference of the Contracting Parties.

Since this Handbook has been compiled from a suite of guidelines adopted by the Convention at different times and through separate Resolutions, it has been necessary for continuity and clarity in this Handbook to change the numbers of sections, paragraphs, figures, tables, boxes and cross-references from each original set of guidelines as adopted by the Conference of the Contracting Parties. The original forms of those guidance documents can be found on the Ramsar website.

## Foreword

When a Contracting Party to the Ramsar Convention on Wetlands designates a Wetland of International Importance (a “Ramsar Site”), a number of commitments and procedures come into play, derived from the text of the Convention itself and from decisions adopted over the years by the Conference of the Contracting Parties (COPs).

Parties are expected to put in place a management planning process for their Ramsar Sites, including where appropriate involving local communities and indigenous peoples in the management of the sites, in order to maintain the “ecological character” of each designated site. This in turn should include establishing monitoring of the ecological character of the wetland so that when change to this character does occur, it can be detected promptly and action can be taken in response if necessary. The guidance adopted by the Convention on these activities is provided in 4th edition Ramsar Handbooks 18 (*Managing wetlands*) and 7 (*Participatory skills*).

As reported in the Millennium Ecosystem Assessment, however, the pressures on both inland and coastal wetlands from human activities continue to be very high in many parts of the world, so inevitably many wetlands (both Ramsar Sites and other wetlands) continue to face significant risk of deterioration or destruction. This Handbook provides the Convention’s advice and guidance on what to do when damaging, or potentially damaging, change to a wetland’s ecological character is detected through management planning or other processes.

Many of the procedures in this Handbook specifically address human-induced negative changes (or likely changes) to the character of designated Ramsar Sites, but the general guidance on, for example, provision of compensation for wetland loss and developing restoration programmes is relevant to all wetlands whether Ramsar-designated or not. Thus, the application of such guidance for all wetlands will make a contribution to a Contracting Party’s commitment to promote, as far as possible, the “wise use” of wetlands in its territory.

Overall, the approach embodied in this suite of guidance is that of maintaining (or when necessary, restoring) wetland ecological character wherever possible, especially of Ramsar Sites. Only if that is not possible should any consideration of restricting or delisting a designated Ramsar Site be considered, and the Convention has established procedures that Parties should follow in this event.

If unpreventable wetland loss or deterioration of a Ramsar Site does occur, then mitigation of such a loss is expected, with the provision of appropriate compensation measures as an essential, but last resort, option in cases where the change is irreversible.

The material in this Handbook has been assembled from a number of different parts of the texts of COP Resolutions and from various guidelines annexed to Resolutions and Recommendations – material adopted by Contracting Parties over the past two decades. This includes an overall Framework for guidance on these issues, agreed at COP10 in 2008. The Convention’s Scientific and Technical Review Panel continues to develop advice to Parties on the ever-evolving challenges in this area.



## **Addressing change in the ecological character of Ramsar Sites and other wetlands**

*(including Guidelines adopted by the 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> meetings of the Conference of the Contracting Parties)*

### **Relevant implementation commitments made by Contracting Parties in COP Recommendations and Resolutions**

#### **Recommendation 4.8: Change in ecological character of Ramsar Sites**

THE CONFERENCE OF THE CONTRACTING PARTIES

REQUESTS the Contracting Parties in whose territory are located sites which have incurred or are being threatened by change in ecological character to take swift and effective action to prevent or remedy such changes.

#### **Resolution VI.1: Working definitions of ecological character, guidelines for describing and maintaining the ecological character of listed sites, and guidelines for operation of the Montreux Record**

THE CONFERENCE OF THE CONTRACTING PARTIES

11. CALLS ON Contracting Parties to support the development, by the relevant authorities within their territories, of Early Warning Systems for detecting, and initiating action in response to, change in ecological character.

#### **Resolution VIII.8 Assessing and reporting the status and trends of wetlands, and the implementation of Article 3.2 of the Convention**

6. CONCERNED that, according to available information including the National Reports to COP8, many Contracting Parties do not have in place the mechanisms to comply with Article 3.2, or that these are not being implemented;

THE CONFERENCE OF THE CONTRACTING PARTIES

12. URGES Contracting Parties, as a matter of high priority, to put in place mechanisms in order to be informed at the earliest possible time, including through reports by national authorities and local and indigenous communities and NGOs, if the ecological character of any wetland in its territory included in the Ramsar List has changed, is changing or is likely to change, and to report any such change without delay to the Ramsar Bureau so as to implement fully Article 3.2 of the Convention, and to report on these matters in the National Reports prepared on the occasion of each meeting of the Conference of the Parties;
18. RECOGNIZES that the establishment of a management planning process, in line with the guidance on management planning adopted by this meeting of the COP, on all Ramsar Sites greatly facilitates the identification, reporting and resolution of changes in ecological character, and that inclusion in each management plan of an objective of maintenance of the ecological character of the site provides a basis for implementation of Article 3.1 of the Convention;
19. FURTHER RECOGNIZES that several response options and mechanisms are available to the Contracting Party concerned to address and resolve identified negative changes, or likely changes, in the ecological character of sites on the List (...);
20. CALLS UPON Contracting Parties to maintain or restore the ecological character of their Ramsar Sites, including utilizing all appropriate mechanisms to address and resolve as soon as practicable the matters for which a site may have been the subject of a report pursuant to Article 3.2 (...);

21. REAFFIRMS, in accordance with the *Guidelines for the operation of the Montreux Record* (Annex to Resolution VI.1), that the Montreux Record is the principal tool of the Convention for highlighting those sites where an adverse change in ecological character has occurred, is occurring, or is likely to occur and which are therefore in need of priority conservation action (...);

**Resolution X.16: A Framework for processes of detecting, reporting and responding to change in wetland ecological character**

THE CONFERENCE OF THE CONTRACTING PARTIES

4. WELCOMES the “*Framework for processes of detecting, reporting and responding to change in wetland ecological character*” provided in the annex to this Resolution, and URGES Contracting Parties to make good use of it as appropriate (...).

## A. Introduction

1. Promoting the conservation of designated Wetlands of International Importance (“Ramsar Sites”) (Article 3.1 of the Convention text), through the maintenance of their ecological character, is one of the key tenets of the Ramsar Convention on Wetlands. So as to maintain wetland ecological character, Contracting Parties to the Convention are expected to establish management planning and monitoring mechanisms for all wetlands which they have designated for the List of Wetlands of International Importance.
2. The guidance adopted by the Conferences of the Contracting Parties (COPs) concerning wetland management planning, including monitoring, of Ramsar Sites and other wetlands is now provided in Ramsar Handbook [18, 4<sup>th</sup> edition]. The guidance for identifying and designating Ramsar Sites is provided in Handbook [17, 4<sup>th</sup> edition].
3. This Handbook provides the guidance adopted by Contracting Parties on procedures and responses concerning what to do if the ecological character of a designated Ramsar Site is detected to have deteriorated, or to be likely to deteriorate, in particular as a result of human-induced change or likely change, particularly in responding to the terms of Article 3.2 of the Convention text which states that:

“Each Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference. Information on such changes shall be passed without delay to the organization or government responsible for the continuing bureau duties [i.e., the Ramsar Secretariat] specified in Article 8”.
4. Sections B and C of this Handbook provide guidance on the mechanisms for detecting and reporting change in ecological character (Article 3.2 of the Convention text) and the role and opportunities provided by the Montreux Record mechanism established under the Convention.
5. The Convention text allows for the designation of Ramsar Sites and the subsequent extension of their boundaries (Articles 2.1 and 2.5), but it permits boundary reduction or complete deletion of a designated site only under circumstances of “urgent national interests” (Article 2.5). The

guidance adopted by COP8 on interpreting “urgent national interests” and the procedures to follow when this aspect of Article 2.5 is invoked by a Contracting Party from Section D of this Handbook.

6. COP8 recognized that there were a number of other possible scenarios which might lead to consideration of a boundary restriction or deletion of a site on the List, but where “urgent national interests” did not apply. The guidance adopted by COP9 on such scenarios and the procedures to apply in addressing these situations is then provided in Section E of the Handbook.
7. As this section of the guidance indicates, the over-riding priority is to seek to maintain the designation of the Ramsar Site, and to seek ways of reversing the observed change in ecological character, including through designing and implementing a restoration programme for the site. The Convention’s guidance on wetland restoration is provided in Section F, and it can be applied to both designated Ramsar Sites and when seeking to restore other degraded wetlands as a contribution to the Party’s commitments to the wise use of wetlands under Article 3.1 of the Convention text.
8. Only when such ecological character change is considered irreversible (i.e., when restoration is not a viable option) should consideration of compensation be considered. The Convention’s general guidance concerning compensation, applicable to all wetlands, is provided in Section G of this Handbook, along with the specific guidance on the provision of compensation under Article 4.2 of the Convention consequent on the invoking of “urgent national interests” under Article 2.5 (see Section D).
9. This Handbook incorporates guidance on addressing change in ecological character of wetlands adopted by Contracting Parties up to and including [COP10 (2008)]. As a High Priority task in its [2009-2012] Work Plan, the Convention’s Scientific and Technical Review Panel (STRP) has been requested to further develop guidance on [aspects of the issue, including definition of the range of natural variability of sites, and “limits of acceptable change”].

## **B. Processes of detecting, reporting and responding to change in wetland ecological character**

10. In 2005 the 9<sup>th</sup> meeting of the Conference of the Contracting Parties to the Ramsar Convention on Wetlands adopted updated definitions of “ecological character” and “change in ecological character” of wetlands (Resolution IX.1 Annex A – see Ramsar Handbook 1). These definitions supersede all previous definitions of these terms, and are:

**“Ecological character** is the combination of the ecosystem components, processes and benefits<sup>1</sup>/services that characterise the wetland at a given point in time.”

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1 Within this context, ecosystem benefits are defined in accordance with the Millennium Ecosystem Assessment (MA) definition of ecosystem services as “the benefits that people receive from ecosystems”.

“For the purposes of implementation of Article 3.2, **change in ecological character** is the human-induced adverse alteration of any ecosystem component, process, and/or ecosystem benefit/service.”

11. Further description of the context of, and rationale for, these definitions is provided in Handbook 1 and COP9 DOC. 16 (available at: [www.ramsar.org/pdf/cop9/cop9\\_doc16\\_e.pdf](http://www.ramsar.org/pdf/cop9/cop9_doc16_e.pdf)).
12. These definitions are provided to support Contracting Parties in the delivery of their commitments under Article 3.2 of the Convention text.
13. Under Article 3.2 of the Convention, each Contracting Party has agreed that it “shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference, and to report any such change, without delay, to the [Ramsar Secretariat]”.
14. To do this, Contracting Parties should have put in place monitoring and risk assessment programmes (see [4<sup>th</sup>] edition Handbook [18], Sections D and E) for their Ramsar Sites, and should also have established a mechanism by which the outcomes of these monitoring programmes, when they detect human-induced change or likely change in the ecological character of a site, will be reported to the national Administrative Authority responsible for the Convention. That Authority must then report such information, without delay, to the Ramsar Secretariat.
15. In practice, as is stressed in Resolution VIII.8 (included in “Relevant Resolutions and Recommendations”), this very seldom occurs, and most Article 3.2 reports received by the Ramsar Secretariat come from third parties.
16. Accordingly, Resolution VIII.8 urges Contracting Parties, as a matter of high priority, to “put in place mechanisms in order to be informed at the earliest possible time, including through reports by national authorities and local and indigenous communities and NGOs, if the ecological character of any wetland in its territory included in the Ramsar List has changed, is changing or is likely to change, and to report any such change without delay to the Ramsar [Secretariat] so as to implement fully Article 3.2 of the Convention.”
17. Issues concerning implementation of Article 3.2 and the purposes of assessing and reporting the status and trends of wetlands are further discussed in Ramsar COP8 DOC. 20 (available at: [www.ramsar.org/pdf/cop8/cop8\\_doc\\_20\\_e.pdf](http://www.ramsar.org/pdf/cop8/cop8_doc_20_e.pdf)) and Ramsar COP10 DOC. 27 (available at: [www.ramsar.org/pdf/cop10/cop10\\_doc27\\_e.pdf](http://www.ramsar.org/pdf/cop10/cop10_doc27_e.pdf)).
18. Furthermore, the Convention’s *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Annex to Resolution VII.11) established through its Objective 4.1 that the Ramsar Site network should be used for monitoring the status and trends of wetlands, specifically “to use Ramsar Sites as baseline and reference areas for national, supranational/regional, and international environmental monitoring to detect trends in the loss of biological diversity, climate change, and the processes of desertification”.

19. Paragraph 19 of Resolution VIII.8 recognized “that several response options and mechanisms are available to the Contracting Party concerned to address and resolve identified negative changes, or likely changes, in the ecological character of sites on the List, including *inter alia*:
  - a) when resources permit, using an established management planning process, including undertaking an environmental impact assessment, to guide implementation of appropriate management action;
  - b) seeking the advice of the STRP, and its National Focal Points, on appropriate issues to take into account in addressing the matter, through the mechanism of requesting the [Secretariat] to circulate an Article 3.2 pro-forma completed by the Contracting Party concerned to the STRP for comment;
  - c) for developing countries and countries with economies in transition, requesting resources to implement management action through the emergency assistance category of the Ramsar Small Grants Fund or seeking such resources from other relevant sources; and
  - d) listing, if appropriate, on the Montreux Record and requesting a Ramsar Advisory Mission (RAM) in order to bring international expertise to bear in providing advice on appropriate actions.” (See Section C below.)

**A Framework for processes of detecting, reporting and responding to change in wetland ecological character**

*(adopted as the Annex to Resolution X.16)*

[**Editor’s note.** Resolution X.16 recognizes that while parts of this Framework concern processes specific to designated Ramsar Sites, other aspects of it can be equally applicable to any wetland being managed to maintain its ecological character as a contribution to achieving the wise use of all wetlands under Article 3.1 of the Convention.]

See also Handbook  
18, Managing  
Wetlands

20. The present Framework is intended to provide the overarching guidance to all processes relevant to maintaining the ecological character of wetlands, and it is complemented as another key part of the process identified in the framework by the Convention’s guidance on “Describing the ecological character of wetlands” [adopted as] Resolution X.15.
21. The framework guidance is designed to give new advice on the overall scheme or “architecture” of Ramsar’s regime on this issue, the ways in which different parts of it (detecting, reporting, responding) fit together, and the processes that should operate if implementation by Contracting Parties and others involved are to be consistent with the terms of the Convention.
22. The Framework is presented as a series of flowcharts [...] to this guidance, as follows:
  - A) Overview of the four flowcharts describing procedures for detecting, reporting and responding to change in wetland ecological character of designated Ramsar Sites;
  - B) *Flowchart 1: Detecting change in wetland ecological character of designated Ramsar Sites;*

- C) *Flowchart 2*: Reporting and responding to negative human-induced change in wetland ecological character of designated Ramsar Sites;
- D) *Flowchart 3*: Reporting natural and positive change, and no change, in wetland ecological character of designated Ramsar Sites; and
- E) *Flowchart 4*: Reporting to and consideration by the Conference of Contracting Parties of change in wetland ecological character.

23. Each flowchart identifies the steps in the process, identifies where decisions on next steps need to be made, and also identifies who (site managers, Administrative Authorities, Ramsar Secretariat, STRP, Standing Committee or COP) should be undertaking the steps and making the decisions.

See also Handbook  
14, Data and  
information needs

24. This framework also provides an example of supplemental guidance on data and information flows for implementing aspects of the overall “Framework for Ramsar data and information needs” (Resolution X.14), in this case speaking to Strategies 2.4 (Ramsar Site ecological character) and 2.6 (Ramsar Site status) of the new Ramsar Strategic Plan 2009-2015 (Resolution X.1).

25. Whilst this framework guidance is designed to address issues of the maintenance of ecological character, and changes in such character, for wetlands which have been designated as Wetlands of International Importance (Ramsar Sites), a number of aspects of the Framework are equally applicable to all wetlands in relation to the wise use aspects of Article 3.1 of the Convention, which states that “The Contracting Parties shall formulate and implement their planning so as to promote ... as far as possible the wise use of wetlands in their territory,” particularly since COP9 Resolution IX.1 Annex A linked the concepts of wise use and ecological character such that the present definition of “wise use” is that:

“Wise use of wetlands is the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development.”

26. Guidance relevant to various different aspects of the Framework for detecting, reporting and responding to change in wetland ecological character has been adopted by previous meetings of the Conference of the Contracting Parties, and [...]much of this [is] compiled [in this Handbook [...]]. Guidance on certain other aspects of Convention implementation relevant to these issues (notably management planning, and assessment tools, is also provided in others of the Wise Use Handbooks ([4<sup>th</sup>] edition).

27. A summary guide to sections of Handbook guidance relevant to applying various aspects of flowcharts 1 to 3 is provided below. [...]

*Handbook 19: Addressing change in wetland ecological character*

**Flowchart 1. Detecting change in wetland ecological character of designated Ramsar Sites**

(HbkX = Wise Use Handbook No. ([4<sup>th</sup>] edition)

Step in flowchart	Available guidance
<ul style="list-style-type: none"> <li>• Describe ecological character</li> </ul>	Hbk15 Wetland inventory; Hbk18 Managing wetlands, Section B
<ul style="list-style-type: none"> <li>• Define ecological character maintenance management objectives</li> <li>• Develop management plan</li> <li>• Implement management plan</li> </ul>	Hbk18, Section C
<ul style="list-style-type: none"> <li>• Monitor ecological character</li> </ul>	Hbk18, Sections D & E Hbk13 Inventory, assessment & monitoring, Section V & Appendix

**Flowchart 2. Reporting and responding to negative human-induced change in wetland ecological character of designated Ramsar Sites**

HbkX = Wise Use Handbook No. ([4<sup>th</sup>] edition)

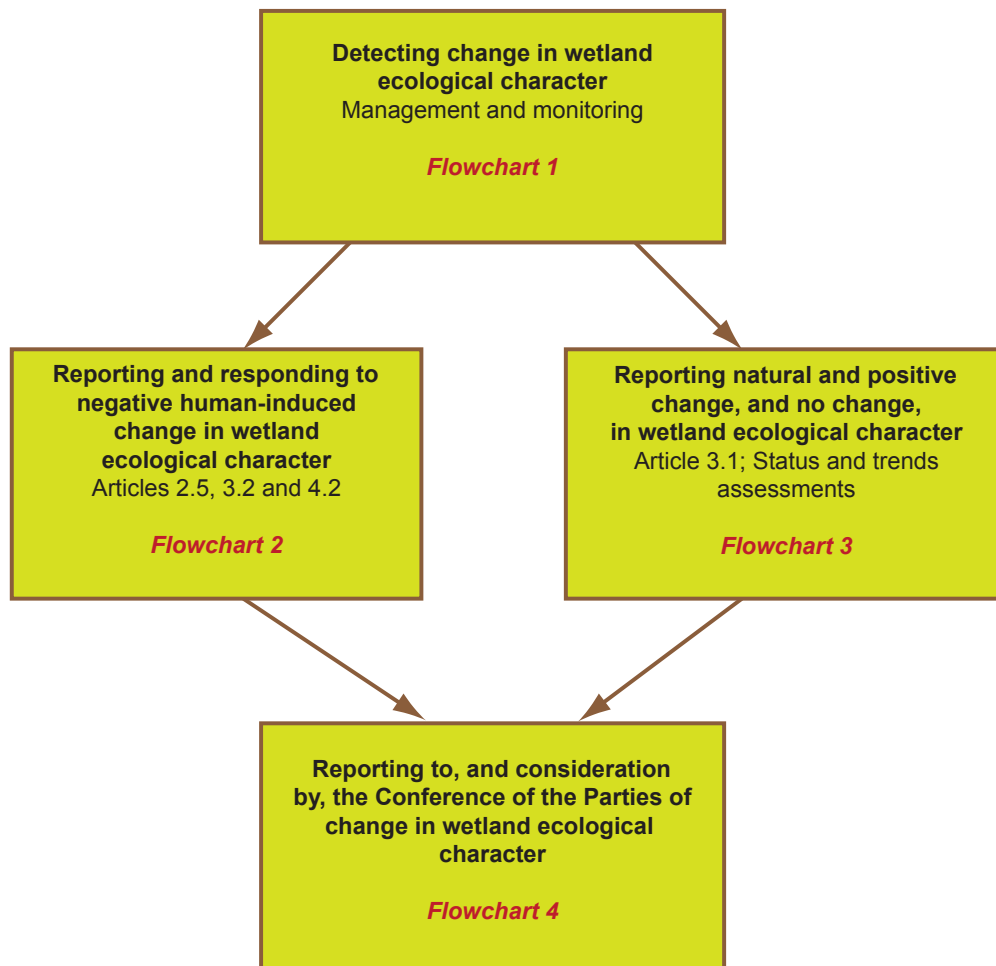
Step in flowchart	Available guidance
<ul style="list-style-type: none"> <li>• Negative human-induced change or likely change in ecological character detected</li> </ul>	Hbk19 Addressing change in [wetland] ecological character, Sections B, D & Appendix
<ul style="list-style-type: none"> <li>• Article 3.2 report</li> </ul>	Hbk19, Section B; HB18 Section B
<ul style="list-style-type: none"> <li>• Urgent National Interest (Article 2.5) invoked</li> </ul>	Hbk19, Section D
<ul style="list-style-type: none"> <li>• Compensate</li> </ul>	Hbk19, Section G
<ul style="list-style-type: none"> <li>• Place on Montreux Record</li> </ul>	Hbk19, Section C
<ul style="list-style-type: none"> <li>• Restore losses</li> </ul>	Hbk19, Section F

**Flowchart 3. Reporting natural and positive change, and no change, in wetland ecological character of designated Ramsar Sites**

HbkX = Wise Use Handbook No. ([4<sup>th</sup>] edition)

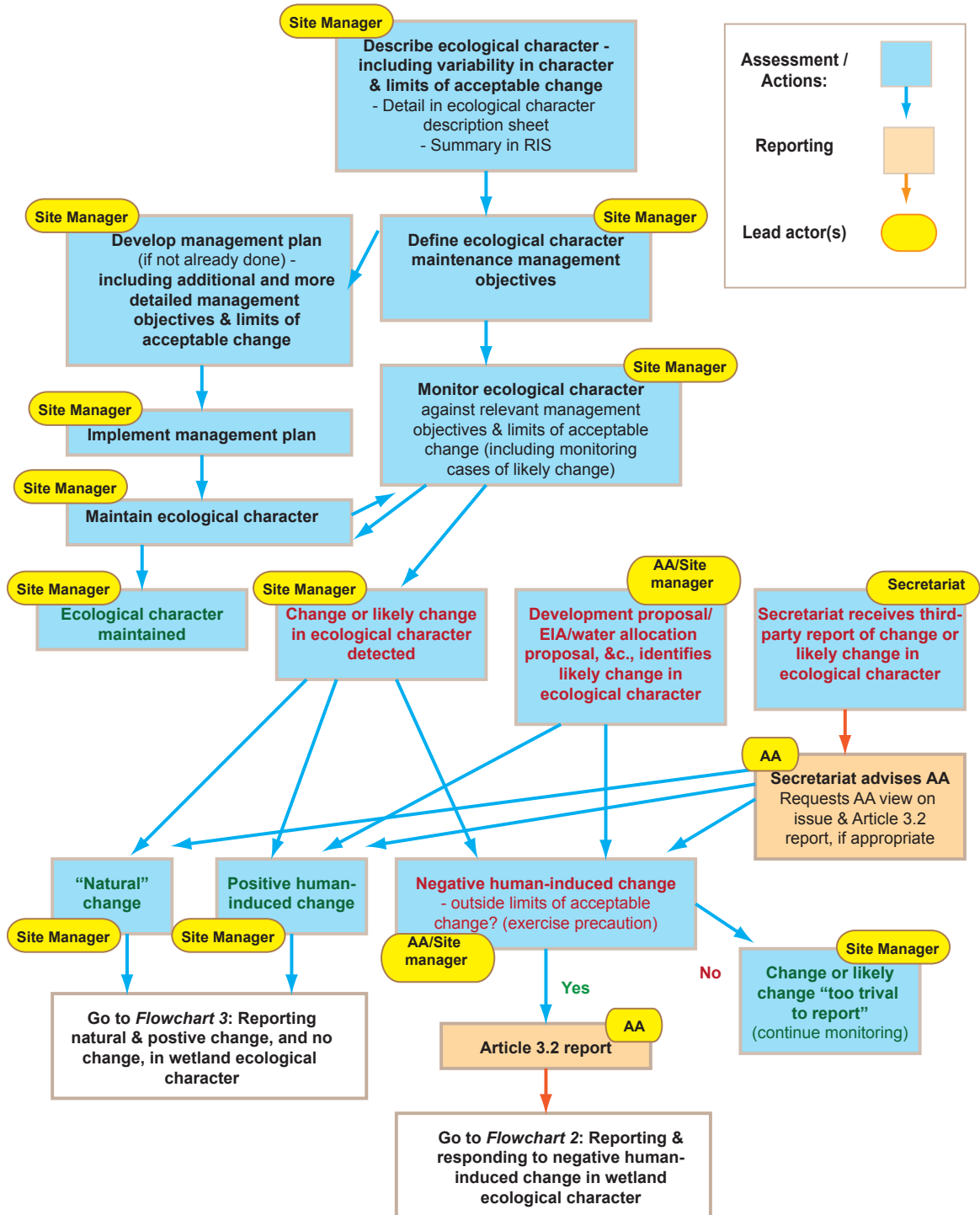
Step in flowchart	Available guidance
<ul style="list-style-type: none"> <li>• Reporting:</li> <li>• "natural change"</li> <li>• positive human-induced change</li> <li>• ecological character maintained</li> </ul>	Hbk13 Inventory, assessment & monitoring, Section V (indicator assessment); Resolution IX.1 Annex D; Hbk17 Designating Ramsar Sites, Section II (Objective 4.1)

**A. Overview of the four flowcharts describing procedures for detecting, reporting and responding to change in the wetland ecological character of Ramsar Sites**

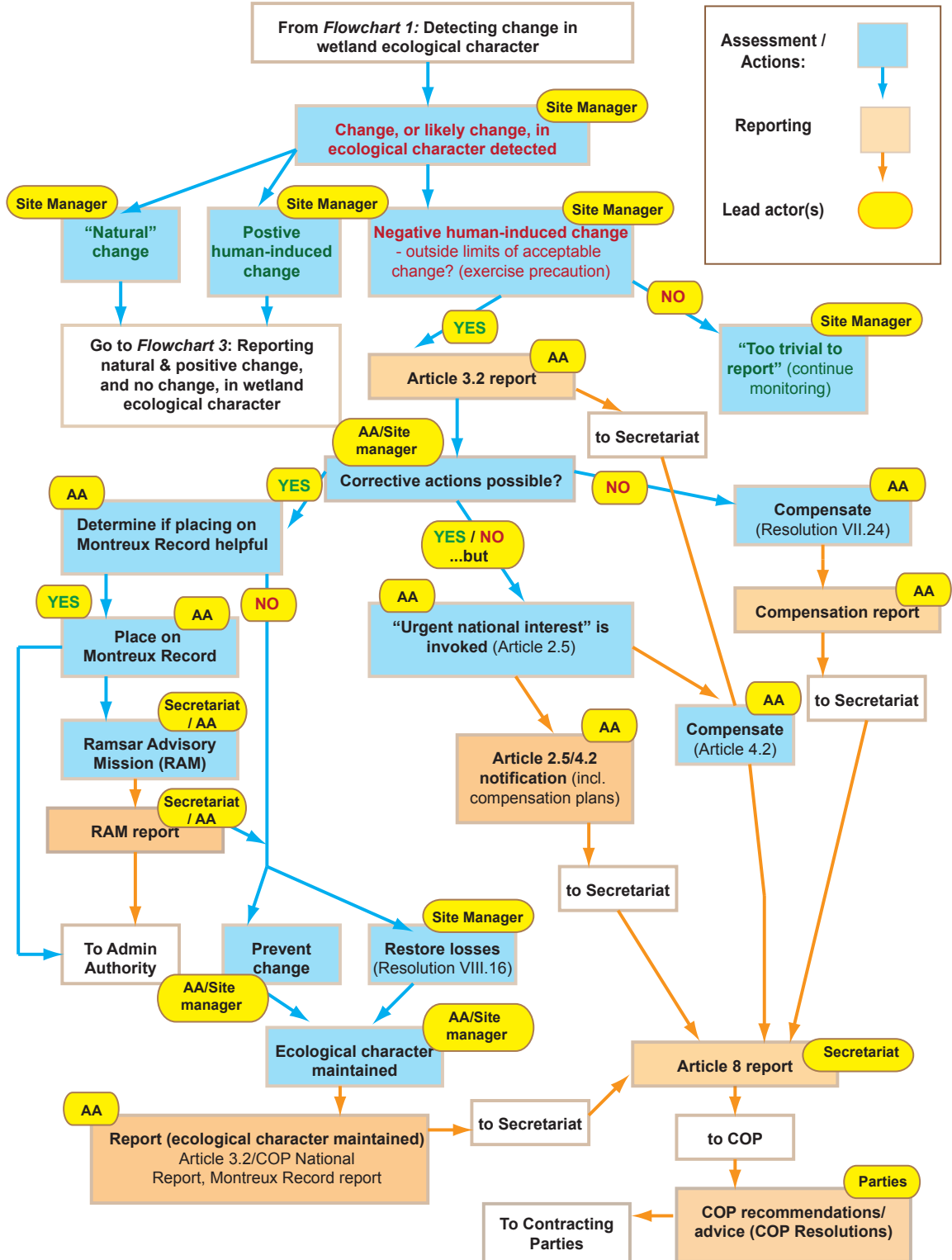




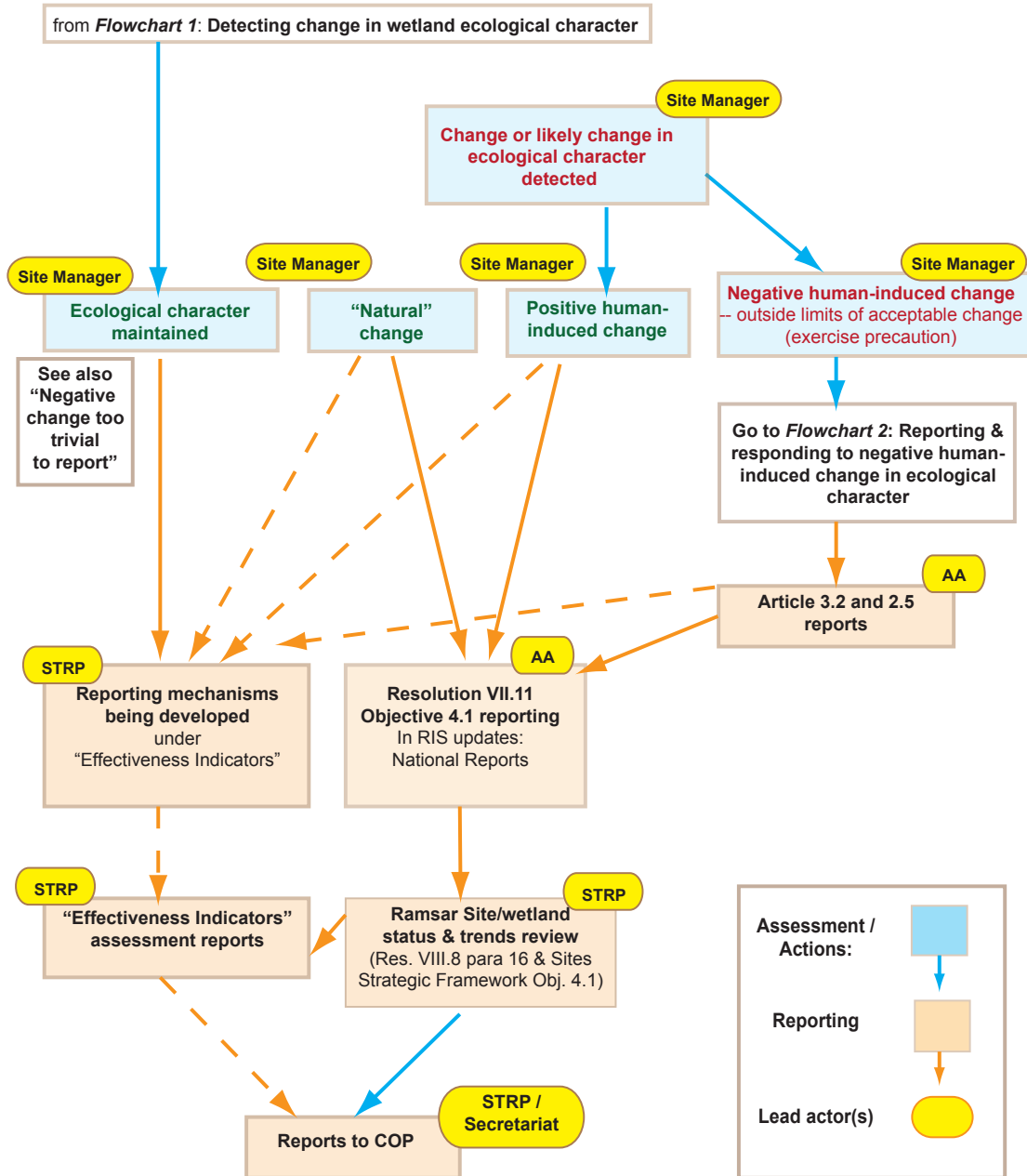
B. Flowchart 1: Detecting change in wetland ecological character of Ramsar Sites



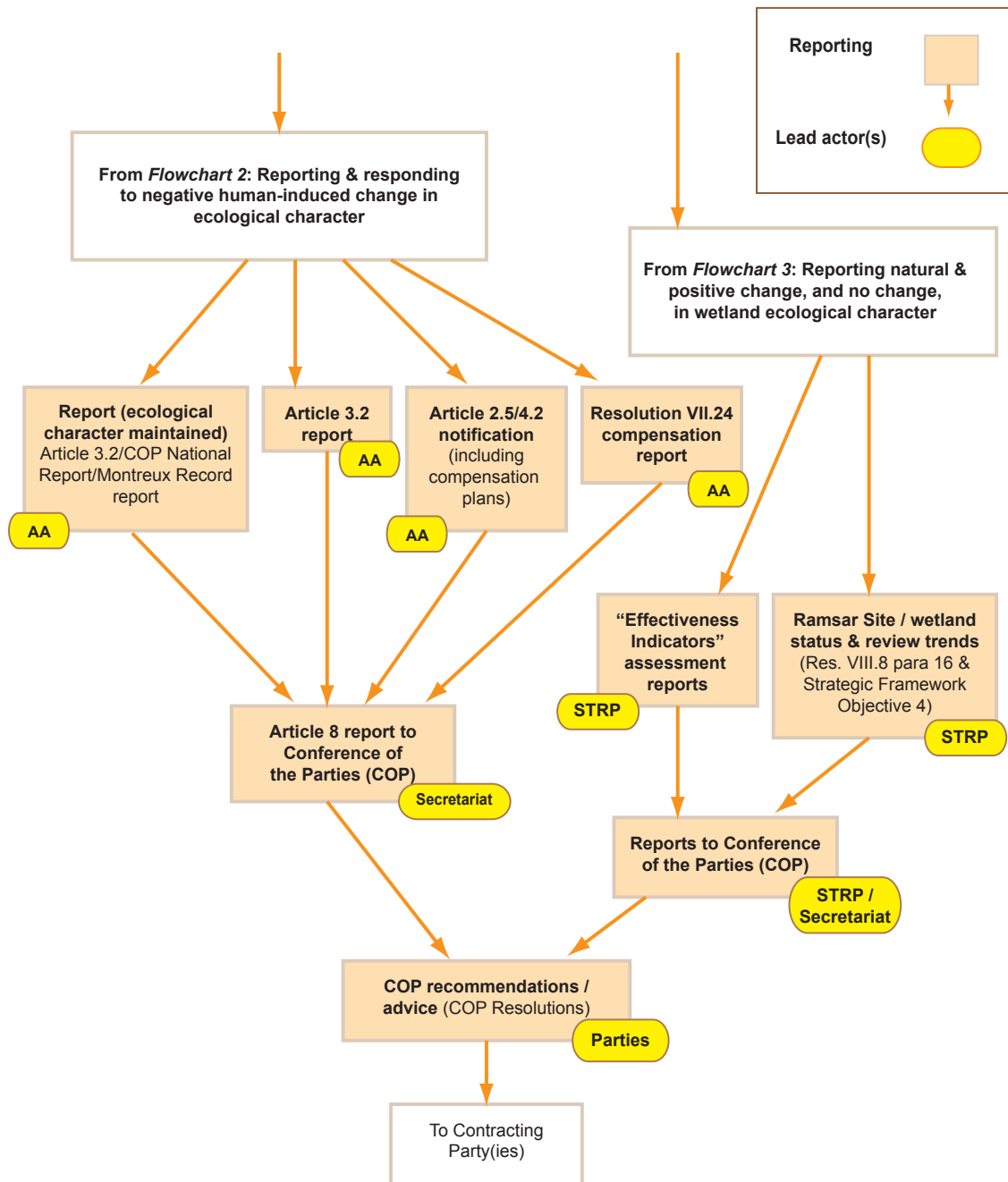
C. Flowchart 2: Reporting & responding to negative human-induced change in wetland ecological character of Ramsar Sites



D. Flowchart 3: Reporting natural & positive change, and no change, in wetland ecological character of Ramsar Sites



E. Flowchart 4: Reporting to, and consideration by, the COP of change in wetland ecological character of Ramsar Sites



### *Additional information*

#### **Background and rationale to the Framework for processes of detecting, reporting and responding to change in wetland ecological character**

An Information Paper provided to COP10 (Ramsar COP10 DOC.27) gives extensive additional information on the background and rationale to the *Framework for processes of detecting, reporting and responding to change in wetland ecological character*, with references to existing guidance on each step in the scheme. As well as a presentation of the overall existing system, and contextualised advice on the implementation of its different parts, some new thinking is included to complete the coherent elaboration of processes created by Article 3.2.

The following list of the sections in Document 27 indicates the issues it covers:

- Defining ecological character
- Defining change in ecological character
- The role of site management plans
- Human-induced change and natural change
- Negative change and positive change
- Actual change and likely change
- “Arranging to be informed”
- Change that is “too trivial to require reporting”
- Taking a precautionary approach
- Reporting (“passing information without delay”)
- Article 8 and the role of the COP
- Responding to change
- The Montreux Record and Ramsar Advisory Missions
- Restoration
- Compensation
- Who is responsible?
- Further detail on reporting, related to the flowcharts

Some selected elements from this COP10 Information Paper are referred to further in relevant sections of this Handbook.

## **C. Applying the Montreux Record ‘tool’ of the Convention**

### **History of the Montreux Record**

28. Recommendation C.4.8 *Change in ecological character of Ramsar Sites*, adopted by COP4 in Montreux, Switzerland, in 1990, instructed “the Convention Bureau, in consultation with the Contracting Party concerned, to maintain a record of Ramsar Sites where . . . changes in ecological character have occurred, are occurring or are likely to occur, and to distinguish between sites where preventive or remedial action has not as yet been identified, and those where the Contracting Party has indicated its intention to take preventive or remedial action or has already initiated such action.”
29. In 1993, Resolution C.5.4 of the Kushiro Conference of the Parties (COP5) stated that this record should be referred to as the Montreux Record, determined that its purpose, among others, should be to identify priority sites for positive national and international conservation attention, and

instructed the Ramsar Convention Secretariat to maintain the Record as part of the Ramsar Sites Database.

30. Paragraph 21 of Resolution VIII.8 reaffirmed that, “in accordance with the *Guidelines for the operation of the Montreux Record* (Annex to Resolution VI.1), the Montreux Record is the principal tool of the Convention for highlighting those sites where an adverse change in ecological character has occurred, is occurring, or is likely to occur and which are therefore in need of priority conservation action”, and acknowledged “that the voluntary inclusion of a particular site on the Montreux Record is a useful tool available to Contracting Parties in circumstances where:
- a) demonstrating national commitment to resolve the adverse changes would assist in their resolution;
  - b) highlighting particularly serious cases would be beneficial at national and/or international level;
  - c) positive national and international conservation attention would benefit the site; and/or
  - d) inclusion on the Record would provide guidance in the allocation of resources available under financial mechanisms.”
31. More detailed Guidelines for the Record were established through paragraph 3 of the Annex to Resolution VI.1, adopted by COP6 in Brisbane, Australia, in 1996. These *Guidelines for operation of the Montreux Record*, including the Montreux Record Questionnaire, are reproduced below (see “Relevant Resolutions and Recommendations” for the Resolution itself):
- i) “The Montreux Record is the principal tool of the Convention for highlighting those sites where an adverse change in ecological character has occurred, is occurring, or is likely to occur, and which are therefore in need of priority conservation attention. It shall be maintained as part of the Ramsar Database and shall be subject to continuous review.
  - ii) The following procedure should be observed when considering the possible inclusion of a listed site in the Montreux Record:
    - A Contracting Party may request inclusion of a site in the Montreux Record, because of potential or actual adverse change in its ecological character, in order to draw attention to the need for action or support. Alternatively, the [Secretariat], on receipt of information on actual or possible adverse change from partner organizations, other international or national NGOs, or other interested bodies, may draw the attention of the Contracting Party concerned to this information and enquire whether a Ramsar Site should be included in the Montreux Record. A site can only be included in the Record with the approval of the Contracting Party concerned.
    - The [Secretariat] will pass the information received from partner organizations, other international or national NGOs, or other interested bodies, to the Contracting Party, together with a concise, voluntary questionnaire (see ‘Montreux Record

## Montreux Record - Questionnaire

*(Annex to Resolution VI.1)*

### Section One: Information for assessing possible inclusion of a listed site in the Montreux Record

#### Essential items

- Name of site
- Ramsar Criteria for listing the site as internationally important
- Nature of the change in ecological character/potential for adverse change
- Reason(s) for adverse change, or potential adverse change, in ecological character

#### Additional items which may be included

- Date Information Sheet on Ramsar Wetlands submitted
- Date and source of Information Sheet updates (e.g., National Reports, national wetland inventory, specific survey)
- Benefits and values derived from the site
- Extent to which values and benefits derived from the site have decreased or changed
- Monitoring programme in place at the site, if any (technique(s), objectives, and nature of data and information gathered)
- Assessment procedures in place, if any (how is the information obtained from the monitoring programme used?)
- Ameliorative and restoration measures in place or planned (if any) so far
- List of attachments provided by the Contracting Party (if applicable)
- List of attachments provided by the Ramsar Bureau (if applicable)

### Section Two: Information for assessing possible removal of a listed site from the Montreux Record

- Success of ameliorative, restoration or maintenance measures (describe if different from those covered in Section One of this questionnaire)
- Proposed monitoring and assessment procedures (describe if different from those in Section One of this questionnaire)
- Extent to which the ecological character, benefits and values of the site have been restored or maintained (provide details)
- Rationale for removing the site from the Montreux Record (refer to Guidelines for operation of the Montreux Record, together with Section One of this questionnaire)
- List of further attachments (if applicable)

– Questionnaire’) normally to be returned to the [Secretariat] within three months. However, this deadline should be flexible to take into account the circumstances of developing countries and Contracting Parties whose economies are in transition.

- The completed questionnaire will, with the agreement of the Contracting Party, be forwarded by the [Secretariat] to the Scientific and Technical Review Panel (STRP) for advice in line with the *Working definitions of ecological character, guidelines for describing and maintaining the ecological character of listed sites, and guidelines for operation of the Montreux Record*. The [Secretariat] will, with the agreement of the Contracting Party, relay the completed

questionnaire to the original source of the information. If the Contracting Party is not able to agree to this, the [Secretariat] will relay the Contracting Party's decision.

- Any technical comment or advice provided by the STRP will be forwarded by the [Secretariat] to the Contracting Party and to the source of the information first received by the [Secretariat] (if different from the Contracting Party).
  - The [Secretariat] will discuss the STRP's comments and advice with the Contracting Party concerned, with the aim of determining what steps might be taken, including a decision as to whether the site should be included in the Montreux Record. The STRP and other interested bodies will, where appropriate, be informed of the decision made by the Contracting Party, in consultation with the [Secretariat].
  - Within the framework of their triennial National Reports, Contracting Parties shall provide a report to the Convention [Secretariat] on the conservation status of any sites included in the Montreux Record. If necessary, further information will be provided to the [Secretariat] on request.
- iii) The following procedure should be observed when considering the removal of a listed site from the Montreux Record:
- The [Secretariat] is requested to remove a listed site from the Montreux Record by the Contracting Party in whose territory the site is included. The [Secretariat] may also receive information from other sources, suggesting that there is no longer a risk of change in the ecological character of the listed site.
  - The [Secretariat] will submit the concise questionnaire (see 'Montreux Record – Questionnaire') to the Contracting Party and forward the completed questionnaire to the Scientific and Technical Review Panel (STRP) for advice in line with the *Working definitions of ecological character, guidelines for describing and maintaining the ecological character of listed sites, and guidelines for operation of the Montreux Record*.
  - Any requests from the STRP for further information, together with the STRP's technical comments or advice, will be forwarded by the [Secretariat] to the Contracting Party. The [Secretariat] may also request information from other sources.
  - At the invitation of the Contracting Party, the [Secretariat] may organize a site visit, ideally by the relevant [Secretariat] staff member, the regional member of the STRP, and other appropriate experts.
  - A wetland will be removed from the Montreux Record based on the request of the Contracting Party and after consideration of advice and/or comment from the STRP. The final decision will be made by the Contracting Party.



### *Additional information*

#### **Are some changes too insignificant to require reporting?**

Article 3.2 of the Convention, which requires Contracting Parties to report change or likely change in Ramsar Site ecological character, is unqualified as to the magnitude or significance of the changes to which it refers. As written, it implies that any change, no matter how trivial, should be reported. Clearly to do so would be neither practical nor helpful. Further guidance on this has therefore been seen as useful for assisting Parties in meeting their obligations under the Article, and that has been requested by Resolution VIII.8.

The COP10 Information Paper on the *Background and rationale to the Framework for processes of detecting, reporting and responding to change in wetland ecological character* (Ramsar COP10 DOC.27) makes some initial comments on this issue, in response to Resolution VIII.8

One part of the question concerns absolute triviality, and how to define the cut-off threshold between “*de minimis*” changes which can be ignored and other changes which may be indicating something real that requires a response. The other part concerns the ability to distinguish between a natural range of variation and some perturbation which becomes superimposed on this and signals an issue of concern. It should be emphasised that what is concerned here is a question based on the ecological character and the functionality of the wetland, so triviality or significance is not something that will be judged simply in terms of the extent of the wetland area affected by change.

Both of the aspects described above approximate to a consideration of what is elsewhere sometimes referred to as “limits of acceptable change” or “alert limits”. A strong linkage is suggested here with site management plans. The management plan should be the place where limits of acceptable change are defined, by reference to management objectives. Resolution VIII.14, *New Guidelines for management planning for Ramsar Sites and other wetlands*, includes sections on “operational limits” and on “specified limits”, which are of relevance in this regard.

The Commonwealth (federal) Government of Australia has developed in-depth guidance on issues concerning the ecological character of its Ramsar Sites, including a volume entitled *National Guidance on Notifying Change in Ecological Character of Australian Ramsar Wetlands* (Article 3.2), published in 2009 and available on the Ramsar website at [www.ramsar.org/pdf/wurc/wurc\\_australia\\_article3-2.pdf](http://www.ramsar.org/pdf/wurc/wurc_australia_article3-2.pdf). While not necessarily applicable to other Contracting Parties or to other situations elsewhere in the world, this does provide a recent example of thinking on the question of limits of acceptable change.

The Ramsar Scientific and Technical Review Panel continues to give further attention to these issues, and has a task in its work programme for 2009-2012 to develop further guidance on “limits of acceptable change”, and guidance on defining the range of natural variability of a site.

Section 12 of COP10 DOC.27 provides information on “Taking a precautionary approach” in the Ramsar context. This is also relevant, in terms of the considerations that may apply in cases of doubt about the significance or otherwise of a given instance of change or likely change in the ecological character of a wetland.

- The [Secretariat] will, unless the Contracting Party concerned objects, provide information on the decision made by the Contracting Party to other interested bodies.”
32. The Montreux Record questionnaire has been developed separately from the Information Sheet on Ramsar Wetlands (RIS) that forms the basis for the Ramsar Sites Database, and it has not been wholly compatible with the RIS and database structure. The Parties have therefore identified that there is a need to review the questionnaire and increase harmonisation of the information fields so as to facilitate future maintenance of the Montreux Record as part of the Ramsar Sites Database. Accordingly in Resolutions IX.2 and X.10 the STRP has been given the task of preparing advice on redesigning the Montreux Record questionnaire, among other things also to ensure consistency with the Article 3.2 reporting format in Resolution X.15.

#### ***Ramsar Advisory Missions***

33. One of the actions to which listing on the Montreux Record may lead is the application of a Ramsar Advisory Mission. The original decision to create the Missions procedure was made by the Standing Committee in 1988 and later endorsed by the COP in 1990 in Recommendation 4.7. The system was originally named the “Monitoring Procedure”, then later (in Resolution VI.14 in 1996) the “Management Guidance Procedure”, and finally (in Resolution VII.12 in 1999) the “Ramsar Advisory Missions”.
34. The Missions (or RAMs) are a mechanism for bringing international expert advice and assistance to bear on issues of ecological character change. The expertise contributed is sometimes the decisive added value required to find a solution. On other occasions the independent authoritative “brokerage” provided through a RAM can break political deadlock and may be decisive in moving toward consensus. Reports of past missions are available on the Ramsar website, at: [www.ramsar.org/ram](http://www.ramsar.org/ram)

#### **D. Deleting or restricting the boundaries of a listed Ramsar Site: interpreting “urgent national interests” under Article 2.5 of the Convention**

35. Article 2.5 of the Ramsar Convention states that “any Contracting Party shall have the right . . . because of its urgent national interests, to delete or restrict the boundaries of wetlands already included by it in the List”.
36. Consequential on Article 2.5, Article 4.2 of the Convention text indicates that “Where a Contracting Party in its urgent national interest, deletes or restricts the boundaries of a wetland included in the List, it should as far as possible compensate for any loss of wetland resources”.
37. At COP8 (2002), however, Contracting Parties recognized through Resolution VIII.20 that Articles 2.5 and 4.2 of the Ramsar Convention do not supply any guidance on the interpretation of the term “urgent national interests” or how compensation should be determined, and they adopted general guidance on these matters as the Annex to Resolution VIII.20.

38. This guidance concerning interpreting “urgent national interests” under Article 2.5 is provided below, and that on provision of compensation under Article 4.2 is provided in Section G of this Handbook.

**General guidance for interpreting “urgent national interests” under Article 2.5 of the Convention**

*(Paragraphs 1-3 and 5-7 of the Annex to Resolution VIII.20)*

**Purpose**

39. In keeping with Article 2.3 of the Convention that “the inclusion of a wetland in the List does not prejudice the exclusive sovereign rights of the Contracting Party in whose territory the wetland is situated,” the determination of “urgent national interests” lies solely with the Contracting Party. The following guidance may assist Contracting Parties in interpreting Article 2.5 and Article 4.2. This guidance may be used by Contracting Parties if they so wish.
40. This general guidance does not prevent a Contracting Party from maintaining or introducing more stringent regulations for the application of the “urgent national interests” clause of the Convention and the provisions for compensation when the clause has been invoked.

**Urgent national interests**

41. When invoking its right under Article 2.5 to delete from or restrict the boundaries of wetlands included in the List of Wetlands of International Importance (Ramsar Sites) in the case of urgent national interests, a Contracting Party may take into account, *inter alia*:
- i) the national benefits of maintaining the integrity of the wetlands system and its related benefits;
  - ii) whether maintaining the status quo threatens a national interest;
  - iii) whether the proposed change is consistent with national policies;
  - iv) whether the immediate action is required to avert a significant threat;
  - v) whether a national interest is being increasingly threatened;
  - vi) all reasonable alternatives to the proposed action, including the “without project” option, finding an alternative location, introducing buffer zones, etc.;
  - vii) the existing functions and economic, social and ecological values of the site in question. (The more important the site’s values and functions, the higher should be the social, economic, or ecological benefits of the proposed project.);
  - viii) the particular value of habitats harbouring endemic, threatened, rare, vulnerable or endangered species;
  - ix) whether the proposed action provides benefits to a large base of recipients;
  - x) whether, over the long term, the proposed action offers greater benefits;
  - xi) the alternative that will best minimize harm to the site in question; and
  - xii) transboundary effects.

See also Handbook  
16, Impact  
assessment

**Procedural matters**

42. A prior environmental assessment, taking into consideration the full range of functions, services, and benefits offered by the wetland, would normally

be an appropriate first step when a Contracting Party is invoking the right under Article 2.5 to delete from the List or restrict the boundaries of listed wetlands, and proposing mitigation or compensatory measures under Article 4.2. Whenever possible, the assessment should be made in full consultation with all stakeholders.

43. In invoking the right under Article 2.5 to delete from the List or restrict the boundaries of listed wetlands, a Contracting Party should take into account that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
44. In invoking the right under Article 2.5 to delete from the List or restrict the boundaries of listed wetlands, a Contracting Party shall inform the Ramsar [Secretariat] of such changes in boundaries at the earliest possible time, as required by Article 2.5. A Contracting Party, when notifying such changes to the [Secretariat], may request advice including from the Scientific and Technical Review Panel (STRP) and/or Standing Committee before any irreversible action is taken.

## **E. Deleting or restricting the boundaries of a listed Ramsar Site: reasons other than under Article 2.5 of the Convention**

45. While Resolution 5.3 includes as its annex a Review Procedure for sites which did not meet the Criteria at the time of listing, Resolution VIII.22 noted that no guidance has been provided by the Convention to assist Contracting Parties where a Ramsar Site ceases to fulfill the Criteria for designation as a Wetland of International Importance, and no guidance has been provided for situations in which part of a site either unavoidably loses the values, functions and attributes for which it was included in the Ramsar List or was included in error.
46. Guidance on these matters was adopted by COP9 Resolution IX.6 in 2005 and is provided in paragraphs 49-78.
47. A more detailed identification and assessment of a range of scenarios in which a listed Ramsar Site may cease to fulfill the Criteria for designation as a Wetland of International Importance was also prepared as an Information Paper (COP9 DOC. 15), which is provided for further information in the Appendix of this Handbook.
48. In adopting Resolution IX.6, COP9:
  - i) reaffirmed “that it is an overarching principle that a wetland should remain designated as a Ramsar Site, and that the whole of its original extent should remain designated, whenever possible and appropriate”;
  - ii) requested “Contracting Parties to apply the guidance and procedures set out in this Annex when contemplating the deletion of a site from the List of Wetlands of International Importance or a restriction to the boundaries of such a site”; and
  - iii) urged “Contracting Parties to provide developing countries with assistance, including capacity building, in order to help reverse, where

possible, the factors leading to consideration of deletion or restriction of a site”.

**Guidance for the consideration of the deletion or restriction of the boundaries of a listed Ramsar Site**

*(paragraphs 49-78 are reproduced from the Annex to Resolution IX.6)*

49. This guidance covers principles and procedures for situations not foreseen in the treaty text concerning the loss or deterioration of the ecological character of wetlands on the List of Wetlands of International Importance under circumstances other than those addressed by Article 2.5.

**I. The relationship between this guidance and issues covered by Resolutions VIII.20 and VIII.21**

50. This guidance covers situations under which the terms of Article 2.5 of the Convention text concerning “urgent national interests” for situations of loss of the ecological character of a listed Ramsar Site have not been invoked by the Contracting Party concerned, or where such “urgent national interest” cannot be justified. Procedures and responsibilities of Parties in relation to Article 2.5 are covered by the guidance adopted by COP8 as the Annex to Resolution VIII.20 [Section D of this Handbook].
51. In relation to boundary restrictions of listed Ramsar Sites, this guidance concerns those situations where reductions in the area of the site are being contemplated owing to the loss or deterioration of the ecological character of the site, where the proposed changes would affect the fundamental objectives, and the application of the Criteria for designation, for which the site was listed.
52. Situations concerning improvements only to the accuracy of defining the boundary of a listed site (for example, through the availability and use of Global Positioning Systems (GPS) and Geographic Information Systems (GIS)), whether this leads to a reduction or an increase in the measured area of the site, are covered in Resolution VIII.21.
53. Contracting Parties at COP5 (1993) through the Annex to Resolution 5.3 established a review procedure for listed sites which may not qualify under any of the Criteria (at that time those established by Recommendation 4.2). The guidance below incorporates relevant aspects of the Resolution 5.3 procedure.

**II. Scenarios under which deletion or restriction might be contemplated**

54. The following 10 scenarios have been identified in the review prepared by the Ramsar Secretariat (see COP9 DOC. 15). Of the 10 scenarios described, at the time of preparation of this guidance seven have already arisen in documented cases, and an eighth, while not having been reported to the Ramsar Secretariat, may have arisen. Seven of the scenarios fall under one or other of the three situations identified in Resolution VIII.22:

**A Ramsar Site never met the Criteria for designation as a Wetland of International Importance:**

- i) At the time of accession a Party supplies, as required by the Convention text, only a name and boundary map but not a completed Ramsar Information Sheet (RIS). Subsequently, in compiling the RIS, it becomes apparent that the site does not fulfil any of the Criteria. This scenario was addressed by the annex to Resolution 5.3.
- ii) The site was designated incorrectly owing to inadequate or incorrect information being available at the time of preparation of the RIS (or pre-RIS information provided at the time of listing), and it subsequently becomes apparent that the site as a whole does not fulfill any of the Criteria. This scenario was also addressed by the annex to Resolution 5.3.

**Part of a Ramsar Site unavoidably loses the components, processes, and services for which it was included, or was included in error:**

- iii) A Ramsar Site is designated after completion of a domestic protected areas procedure under national legislation, such that the Ramsar Site boundary follows that established for the site first selected for its national importance, and the boundaries of the nationally-designated site are then changed.
- iv) All or part of a Ramsar Site loses the components, processes, and services of its ecological character as a wetland for which it was listed, for reasons other than changes covered by Article 2.5.
- v) A set of linear boundaries has been used to define the Ramsar Site boundaries which do not relate directly to the eco-geography of the wetlands or their associated catchments.

**A Ramsar Site met the Criteria but the Criteria or the parameters underpinning them are subsequently changed:**

- vi) The site's values, functions and attributes remain unchanged, but it subsequently fails to meet the Criteria owing to a change in those Criteria.
  - vii) The site's values, functions and attributes remain unchanged, but it subsequently fails to meet the Criteria owing to a change in the population estimates or parameters which underpin them.
55. Two other scenarios do not fall directly within any of the three categories identified in Resolution VIII.22:
- i) A Ramsar Site designated by a former Contracting Party is now within the territory of a successor country which is presently acceding to the Convention and indicating a different boundary and area for that site.
  - ii) Part or all of a listed Ramsar Site is proposed for deletion in order to permit possible future developments or other land use change in that area which cannot be justified as "urgent national interest".
56. One other scenario can be envisaged which could arise from one or other of the specific scenarios listed above:

- i) A Contracting Party has designated only one Ramsar Site (at the time of its accession) and that site ceases to qualify under the Criteria.

**III. Obligations of Parties under the Convention, especially Articles 2.1, 2.5, 3.1, 3.2 and 4.2: general principles for the contemplation of deletion or restriction of listed Ramsar Sites**

57. The obligations of Parties under Articles 2.1 and 3.1 of the Convention text are that Parties should designate Ramsar Sites and implement planning so as to promote their conservation (i.e., maintain their ecological character). This has been further elaborated by Resolution VIII.8 in which the Parties committed themselves to maintain or restore the ecological character of their Ramsar Sites.
  58. If a human-induced change to the ecological character of a Ramsar Site has occurred, is occurring or is likely to occur, under Article 3.2 it is the obligation of the Party concerned to report this “without delay” to the Ramsar Secretariat.
  59. The Convention text (Article 2.5) allows for the deletion or restriction of the boundary of a designated Ramsar Site only if this is justified as being in the “urgent national interests”.
  60. Resolution VIII.22 concerns particular situations in which ecological character loss of a designated Ramsar Site is or was “unavoidable”. It follows that if such a situation is or was avoidable, the appropriate steps to take are to avoid such loss.
  61. Under some of the scenarios, deletion or boundary restriction should not be considered to be acceptable under the Convention, notably when such deletion or restriction is being proposed in order to permit or facilitate future developments or other land use change in that area which is not justified as in the “urgent national interests” (i.e., para. [54] ii above).
  62. Parties have already indicated that compensation for the loss or degradation of wetlands, including listed sites, should be applied under three circumstances:
    - i) in cases of change leading to considerations of boundary restriction or deletion of listed sites where an “urgent national interest” applies (Article 4.2 and Resolution VIII.20);
    - ii) in cases of change resulting in loss of wetland ecosystem components, processes and services, but not leading to considerations of boundary restriction or deletion (Resolution VII.24); and
    - iii) in cases of sites which did not, at the time of designation, qualify under any of the criteria for designation (Resolution 5.3).
  63. Since the provision of compensation (Article 4.2) is expected even when “urgent national interest” is considered to override the other provisions of the Convention text, when no such justification applies the other obligations of the Convention text, notably Article 3.1, and those of Resolution VII.24 apply. Thus if the loss of ecological character was “unavoidable” (Resolution VIII.22, paragraph 6 b) at least equivalent provision of compensation
-

should be made, if practicable, in line with the considerations in the Annex to Resolution VIII.20 (paragraph 4). This is also the approach which was adopted in the procedure annexed to Resolution 5.3 for a site which proves not to have fulfilled the Criteria at the time of designation.

64. Parties should consider, if such policies and legislation are not already in place, establishing policies and legislative mechanisms for addressing third-party damage to the ecological character of listed Ramsar Sites, including the issue of compensation, as is called for in Resolution VII.24, and applying the guidance in Ramsar Wise Use Handbook 3 (“Laws and Institutions”) adopted by Resolution VII.7, as necessary.
65. If a deletion or boundary restriction is still contemplated after all such other considerations and options have been weighed, the procedures for such an action should follow the terms of Article 8.2 (b), (d) and (e): i.e. for the Secretariat to forward notification of such an alteration to the List to all Contracting Parties; to arrange for the matter to be discussed at the next Conference of the Contracting Parties; and to make known to the Contracting Party concerned the recommendations of the Conference in respect of such alterations.

#### **IV. Procedures to apply should deletion or restriction be contemplated**

66. Drawing upon issues raised under the scenarios outlined above, the following steps should be followed for any consideration of boundary restriction of part of a listed site or delisting of an entire site in circumstances where Article 2.5 does not apply. Restriction of boundary should be considered first and only in exceptional circumstances should delisting of the site be considered.
67. The approach focuses on scenarios where part or all of a site appears to have lost the wetland ecosystem components, processes and/or services for which it was originally designated. Additional information on a range of issues to consider under each of these scenarios is provided in COP9 DOC. 15 [see Appendix in this Handbook].
68. A Party should consult with the Ramsar Secretariat at an early stage in their contemplation of any deletion or restriction of a listed site (as is already expected under Resolution 5.3 for a site which may not have fulfilled the Criteria at the time of designation).
69. **Step 1.** Substantiate and confirm the reasons why the case at hand is one where Article 2.5 of the Convention does not apply.
70. **Step 2.** If the ecological character of part or all of the listed site has changed owing to human-induced activities in line with Resolution VIII.8, make an Article 3.2 report without delay to the Ramsar Secretariat.
71. **Step 3.** At the same time, consider:
  - i) whether it would be helpful to seek the advice of the Scientific and Technical Review Panel (STRP);



- ii) whether adding the site to the Montreux Record would be a helpful step, in line with the purposes set out in Resolution VIII.8, paragraph 21;
  - iii) whether a Ramsar Advisory Mission should be requested; and/or
  - iv) whether requesting emergency assistance under the Ramsar Small Grant Fund is appropriate.
72. **Step 4.** Undertake an assessment of the present ecological character of the site, and establish whether the site still qualifies as a Wetland of International Importance under one or more of the current Criteria. It may be that the changed character of the site leads to it qualifying under another Criterion or other Criteria than those for which it was originally listed, and/or that such other Criteria may have always been applicable but were not used at the time of listing.
73. **Step 5.** As part of the assessment in Step 4, establish whether the change in ecological character that has led to the site, or part of the site, ceasing to qualify is truly irreversible. If the change appears to have a chance of reversibility, define the conditions under which the change may reverse or be reversed, and the management actions (including restoration) [see Section F of this Handbook] needed to secure this, as well as the likely timescales needed to permit the recovery of the character of the site.
74. Such reversibility could arise through, inter alia, recovery from damage caused by a natural disaster, the natural inter-annual variability of the size of waterbird or other populations, and/or management interventions including restoration or rehabilitation of the affected part(s) of the site.
75. **Step 6.** If there is potential for reversibility, monitor the key ecological features of the site for the time period necessary as identified under Step 5, and then re-assess the status of the site in relation to its qualification under the Criteria.
76. **Step 7.** Report on the recovery of the site, including through a further Article 3.2 report to the Secretariat, requesting removal of the site from the Montreux Record if appropriate, and prepare and submit an updated Ramsar Information Sheet which clearly identifies the changes which have occurred.
77. **Step 8.** If the loss of part or all of the listed site is irreversible, and the attempts at recovery or restoration have failed in terms of its qualification for the Ramsar List, or if there is clear evidence that the site was listed in error in the first place, prepare a report on the restriction of the site's boundary or its removal from the List, as appropriate. This report should include, inter alia, a description of the loss of ecological character and the reasons for it, a description of any assessments made and their results, the steps taken to seek the recovery of the site, and proposals for the provision of compensation (including in line with Resolutions 5.3, VII.24 and VIII.20), accompanied by relevant maps. If the intention is for a boundary restriction, this should include an updated Information Sheet on Ramsar Wetlands (RIS).

**V. Procedures for confirming a boundary restriction or deletion of a listed site**

78. The following procedure should be followed when a Party wishes to confirm restriction or delisting a Ramsar Site:
- i) The Party should submit its intent, covering the aspects of the issue as outlined in Step 8 above, to the Ramsar Secretariat, which will make arrangements to advise all Contracting Parties, in line with Article 8.2 (d);
  - ii) All such cases and their outcomes will be reported for discussion at the next COP, in line with Article 8.2 (d), which may wish to make recommendations to the Party concerned, in line with Article 8.2 (e);
  - iii) The Secretariat will transmit any such recommendations made by the COP to the Contracting Party concerned (Article 8.2 (e)).

**F. Designing restoration programmes**

**Relevant implementation commitments made by Contracting Parties in COP Recommendations and Resolutions**

**Resolution VIII.16: Principles and guidelines for wetland restoration**

THE CONFERENCE OF THE CONTRACTING PARTIES

10. CALLS UPON all Contracting Parties to recognize (...)that the restoration or creation of wetlands cannot replace the loss of natural wetlands;
11. URGES all Contracting Parties to integrate fully the *Principles and guidelines for wetland restoration* into their National Wetland Policies and plans (...);
16. CALLS UPON all Contracting Parties to apply the *Principles and guidelines for wetland restoration* when considering the provision of compensation under Article 4.2 of the Convention (...).

79. The Convention has recognized that, although the restoration or creation of wetlands cannot replace the loss of natural wetlands, restoration can play an important part in addressing degraded wetlands – those which have lost, or are losing, their values and functions through change in ecological character.
80. In 2002, Contracting Parties at COP8 adopted *Principles and guidelines for wetland restoration* as the Annex to Resolution VIII.16. These are reproduced below in paragraphs 80-111. The Resolution itself is included among the Relevant Resolutions and Recommendations at the end of this Handbook. [...]

## **Principles and guidelines for wetland restoration**

*(adopted as the Annex to Resolution VIII.16)*

### **Introduction**

81. The need to reverse wetland degradation, in addition to the recognition of benefits associated with wetland restoration, has led to initiation of numerous restoration projects globally. Although there is increasing interest in wetland restoration and opportunities are widespread, efforts to restore wetlands are still sporadic, and there is a lack of general planning at the national level. Individuals and organizations interested in restoration often work in isolation and without the benefit of experience gained on other projects.
82. Recognizing the importance of past experience in wetland restoration and the increasing interest in restoration among Contracting Parties, Recommendation 6.15 of the Ramsar Convention urged “the Scientific and Technical Review Panel, in collaboration with the Bureau and concerned Contracting Parties and partners, to define guidelines on principles for wetland restoration”. The STRP was tasked with further developing these tools and guidelines by Resolution VII.17 concerning *Restoration as an element of national planning for wetland conservation and wise use*.
83. Although Operational Objective 4 of the Strategic Plan 2003-2008 refers to both “restoration” and “rehabilitation”, the difference between these two terms is not clear. The Ramsar Convention has not attempted to provide precise definitions of these terms. While it might be said that “restoration” implies a return to pre-disturbance conditions and that “rehabilitation” implies an improvement of wetland functions without necessarily returning to pre-disturbance conditions, these words are often used interchangeably both within Ramsar documentation and within the conservation literature. These *Principles and guidelines for wetland restoration* use the term “restoration” in its broadest sense, which includes both projects that promote a return to original conditions and projects that improve wetland functions without necessarily promoting a return to pre-disturbance conditions.
84. General principles and guidelines based upon experience with many projects in many settings can offer a useful starting point for restoration projects. The principles presented here provide the underlying ideas that form the foundation of a successful restoration project, and as such they should be integrated into national wetland policy (see also Ramsar’s *Guidelines for developing and implementing National Wetland Policies* (Resolution VII.6)).
85. The guidelines presented here provide a step-by-step process guiding the identification, development and implementation of a restoration project, and as such they can be integrated into administrative guidelines.
86. However, every restoration project is unique, and whilst these principles and guidelines are designed to be useful in many situations, they are neither universally applicable nor definitive.

See also Handbook  
2, National Wetland  
Policies

### *Additional information*

#### **Invoking restoration as a response option**

Restoration constitutes a potential response to change or likely change in ecological character in situations where avoidance or prevention of change is not possible or is unlikely to succeed.

Section 17 of the COP10 Information Paper on the *Background and rationale to the Framework for processes of detecting, reporting and responding to change in wetland ecological character* (Ramsar COP10 DOC.27) makes some comments on the issues involved in decision-making on this.

As emphasized, for example, in Recommendation 4.1, Resolution VII.17 paragraph 10, and Resolution IX.6 Annex paragraph 12, no matter how feasible restoration may be in a given case, when potential loss of natural wetlands is in prospect, the first priority is to avoid such loss.

The COP has also stressed the point (again in Resolution VII.17 paragraph 10 and Resolution VIII.16 paragraph 10) that restoration or creation of wetlands cannot replace the loss or degradation of natural wetlands. This is true in relation to the ecological values of such wetlands, but in many cases it is equally true, or even more so, in relation to those cultural values that are site-specific in nature.

There is thus a logical sequence in which steps should be considered. To begin with, when change in ecological character at a site is deemed likely, the response obligation at that point is to maintain the character under Article 3.1 of the Convention, following the reasoning embodied in current guidance whereby “conservation” is taken to mean “maintenance of ecological character”.

If change is occurring or has occurred, the “maintain” obligation should be interpreted as continuing in effect, which would mean an obligation to restore the interests in question, *in situ*.

A move to a next step in the sequence would depend on a judgment that efforts to “maintain”, “restore” or “rehabilitate” were not succeeding and/or had no prospect of succeeding. This is often not a straightforward judgment to make, either in ecosystem management terms or in legal terms. Informed assessments and a precautionary approach will both be necessary.

If the judgment described in the preceding paragraph is made, in effect it constitutes also a decision that the situation has moved beyond the scope of the Article 3.1 requirement, and at this point the question of compensation becomes relevant (see section G of this Handbook).

#### **Principles**

87. A national programme and priorities for wetland restoration should be established, based on a national inventory of wetlands with potential for restoration, as a component of the national wetland policy, plan or strategy, so as to maximise the benefit to the overall conservation status and wise use of wetlands of the efforts and resources applied to wetland restoration.
88. A clear understanding and statement of goals, objectives, and performance standards for wetland restoration projects is a critical part of restoration

success (see Box 1 and Guidelines, below). In keeping with the Annex to Ramsar Resolution VII.17 on restoration as an element of national planning for wetland conservation and wise use, goals and objectives should recognize that wetlands perform multiple functions: “Multiple purposes such as conservation of biodiversity, provision of reliable food resources, fresh water supply, purification, flood control and recreation may often increase the sustainability and total benefits of a restoration project.” If a project hopes to promote a return to pre-disturbance conditions, this should be stated as part of the project goals, with more detailed information on exactly what this means incorporated into project objectives. However, it should be noted that not all restoration projects will hope to promote a return to pre-disturbance conditions and that a return to pre-disturbance conditions is not implied by the word “restoration” as used in these *Principles and guidelines for wetland restoration*.

89. Careful planning will limit the possibility of undesirable side effects. For example, careful planning can allow restoration projects to avoid problems such as increased numbers of mosquitoes, unwanted flooding, or saltwater intrusion into sources of drinking water. To assist in planning, an assessment should be made of the features of the site under consideration, and the factors that may affect its feasibility and success (see Box 2 for issues to consider).
90. Natural processes and existing conditions should be considered during project selection, design, and development. To the extent that is possible, ecological engineering principles should be applied in preference to methods requiring hard structures or extensive excavation.
91. Recommendation 4.1 of the Ramsar Convention rightly notes that “the maintenance and conservation of existing wetlands is always preferable and more economical than their subsequent restoration” and “restoration schemes must not weaken efforts to conserve existing natural systems”. Both quantitative data and subjective assessments clearly show that currently available restoration techniques almost never lead to conditions that match those of pristine natural ecosystems. As a corollary to this, trading high-quality habitat or ecosystems for promises of restoration should be avoided except in the case of overriding national interests. However, restoration of individual sites can contribute to ongoing management of existing high quality wetlands by, for example, improving overall catchment condition and contributing to improved water allocation management.
92. Whenever possible, the minimum acceptable scale for wetland restoration planning should be at the catchment level. Individual, relatively small restoration projects targeting a single wetland can be valuable provided that they are planned within the context of the catchment. Wetland restoration planning should not ignore the value of upland habitats and linkages between upland and wetland habitats.
93. Wetland restoration planning should consider water allocation principles and the role that restoration can play in maintaining ecological functions of wetlands - see Ramsar *Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands*, as adopted by Resolution VIII.1.

*Additional information*

**Restoring coastal ecosystems: the Green Coast Project**

**by Wetlands International**

On 26 December 2004 a devastating tsunami hit the coasts of South and Southeast Asia, causing the deaths of over 200,000 people and the destruction of uncountable houses and habitats. This disaster triggered the start of the Green Coast project, aiming at restoration of coastal ecosystems that, apart from their natural values, are essential for livelihoods and for mitigating the impacts of future storms.

The US\$ 5.4 million Green Coast Project operated throughout the tsunami-hit countries: India, Sri Lanka, Thailand, Malaysia and Indonesia. The project started in mid-2005 and has been led and coordinated by Wetlands International and carried out together with many partners<sup>1</sup>.



The Green Coast Project aims to restore coastal ecosystems that provide natural shelter and other benefits to people who live in vulnerable coastal regions. So far the project team has:

- assessed the situation of coastal communities and nature after the tsunami;
- influenced governments, aid agencies and the corporate sector towards 'green reconstruction'; and
- provided small grants to local communities to restore coastal natural resources that benefit their livelihoods.

One of the activities within the Green Coast Project was a cleaning operation to remove tsunami rubble from the sea. Such processes are a real investment in the future as healthy coral reefs will bring increased livelihood possibilities through tourism, large fish stocks and protection of the coast against future storms.

Another activity is the rehabilitation of mangrove forests. Even before the tsunami, mangroves were being cleared for the development of shrimp farms, for use as firewood and for building materials. By encouraging replanting of mangroves, the project has helped restore areas that provide food and wood for coastal communities, improve protection from storm damage, and secure breeding grounds for fish.

In the first year of the project, emphasis was placed on the assessments of tsunami damage. This led to science-based information on the areas where important coastal ecosystems were destroyed, and about the needs, views and rights of local communities. The assessment results provided information and options on where best to restore ecosystems and local community livelihoods. In each country a Small Grants Facility was established to provide technical and financial support to local organizations and communities for ecosystem recovery projects. These 150 community-based restoration projects not only benefit the people involved, but also offer inspiring 'model examples' to policy-makers and governments.

An interim evaluation of this project at the end of 2006 showed, in a relatively short period of time, an impressive output from the Green Coast project of visible results contributing to the restoration of livelihoods of people hit by the tsunami, combined with an innovative approach to restoring coastal ecosystems and landscapes in a sustainable manner.

For more information check <http://www.wetlands.org/Whatwedo/Ourfieldprojects/Projectarchive/GreenCoasts/tabid/436/Default.aspx> or contact Marie-José Vervest at [Marie-Jose.Vervest@wetlands.org](mailto:Marie-Jose.Vervest@wetlands.org)

<sup>1</sup> IUCN–The World Conservation Union, WWF and Both ENDS. Initial finances were provided by Oxfam Netherlands and originated from the donations of millions of Dutch people after the Tsunami.

See also Handbook 7,  
Participatory skills

94. Wetland restoration should be an open process that involves local community stakeholders as well as stakeholders who will be affected by a project even though they may be geographically distant from the project, for example, stakeholders living well downstream. All stakeholders, including local communities and indigenous people and sectoral interests both *in situ* and *ex situ*, should be fully involved in a wetland restoration project from its earliest stage of consideration through its implementation to its long-term stewardship.
95. Restoration requires long-term stewardship, including ongoing management and monitoring (see *A framework for designing an effective wetland monitoring programme*, annex to Resolution VI.1 [included in Section D of Handbook 16]). Successful restoration should be designed, as far as possible, for self-maintenance, but it also generally requires a constituency that understands the need for long-term stewardship, the resources required to support this stewardship, and a commitment to delivering this stewardship. Development of incentive measures can make a valuable contribution to the long-term success of a restoration project (see Resolution VII.15, *Incentive measures to encourage the application of the wise use principle*).
96. Wetland restoration planning should incorporate, where practicable, knowledge of the traditional resource management that contributed to shaping the landscape. Incorporation of traditional environmental knowledge, management, and sustainable harvesting practices by local people should be an integral component of restoration.
97. The principles of adaptable management (see the *New Guidelines for management planning for Ramsar Sites and other wetlands*, adopted by Resolution VIII.14 [included in Section C of Handbook 18]) should be applied to restoration projects. As a project develops, modifications may be necessary to accommodate unforeseen developments and take advantage of newly acquired knowledge or resources. Any modifications should be designed in the light of evaluation of the project against its established goals, objectives, and performance standards.
98. Successful restoration projects can provide inspiration and stimulus for continuing stakeholder involvement and for the development of further projects and programmes. Information on proposals for, and the results and successes of, a restoration project should be widely disseminated both in scientific and technical fora and as popular information accessible to stakeholders.
99. Restoration interventions should be coupled with measures to raise awareness and influence the behaviours and practices that led to the degradation of the ecosystem, in order to ensure that the causes, as well as the effects, of degradation are addressed. These actions provide a further mechanism for landowners, resource users and surrounding communities to be drawn into restoration projects, and for applying the *Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands* (Resolution VII.8) [Handbook 7, 4th edition].

### **Guidelines**

100. The flowcharts accompanying this text lay out guidelines for wetland restoration projects. The following points explain the flowcharts.
101. The boxes below represent steps that can occur concurrently or iteratively. For example, in some cases stakeholders cannot be completely identified until after a site has been selected, and changes in stakeholders concerned may lead to changes in goals, objectives, and performance standards.
102. Identify stakeholders and involve stakeholders with all aspects of work (Box 1 in Flowchart 1): Stakeholders should be involved with all key planning decisions throughout the restoration process.
103. Project goals, objectives, and performance standards (Box 2 in Flowchart 1): Many wetland restoration projects suffer from poorly stated (or unstated) goals and objectives. Without clearly stated goals and objectives, projects lack direction. By attaching performance standards to each project objective, stakeholders are forced to consider closely their goals and objectives, and often the development of performance standards leads to revision of goals and objectives. An example of a goal for a project might be to increase the quality of wildlife habitat. An associated objective might be to improve habitat value for certain species, such as migratory waterfowl. Performance standards associated with this objective could specify the number of breeding pairs of several key species that are expected to use the site after restoration has been completed.
104. As a rule, a monitoring method that can be used to assess performance standards should be identified as part of the planning process, recognizing that different monitoring methods may not result in consistent measures. For example, a performance standard might require maintenance of 70% cover by a particular plant species, but different methods of estimating percentage of cover will yield different values for the same site. Project goals, objectives, performance standards, and monitoring methods should be written down, widely distributed, and frequently revisited to keep projects on track.

#### **Box 1. Goals, Objectives, and Performance Standards**

**Goals** are general statements about desired project outcomes – stating goals allows all stakeholders to understand, in general terms, the desired direction of a project. Projects may have more than one goal, reflecting the multiple functions that individual wetlands perform.

**Objectives** are specific statements about desired project outcomes – projects typically have more than one objective, reflecting the multiple functions that individual wetlands perform.

**Performance standards** (sometimes called success criteria) are observable or measurable attributes that can be used to determine if a project meets its intended multiple objectives – each objective will have one or more associated performance standards.

105. Site selection (Box 3 in Flowchart 1): In many cases, restoration projects begin in response to conditions on a particular site, and thus the site is specified at the project's outset. However, some projects begin without a site. In these cases, several sites might be assessed before a final project site



is identified. A proposed procedure for identification of potential restoration projects can be divided into three phases:

- i) Phase 1 aims to identify the spatial need for restoration of wetland functions and to set environmental constraints for restoration in each case.
  - ii) Phase 2 is more site specific, and evaluates the sustainability of the potential restoration projects through a synthesis of the environmental constraints derived from phase 1 and the socio-economic characteristics and other particularities of the catchment.
  - iii) Phase 3 is the final outcome, whereby the evaluation of the previous two phases permits identification and prioritization of potentially sustainable restoration projects. This final phase stems from the need to make sound decisions on wetland resource management and leads to successful, cost-effective projects with broad public acceptance.
106. Flowchart 2 and the following paragraphs elaborate on the process of site selection:
- i) Spatial analysis of catchments should help both to identify areas where there is a need for restoration of wetland functions and to rank the relative need for restoration in different catchments (Box a in Flowchart 2). For example, establishment of a wetland for the purpose of water quality improvement in a catchment with intense agricultural development would be far more critical than would be the case in a neighboring catchment with no apparent nutrient runoff problems.
  - ii) To contribute to spatial analysis of catchments, it is necessary to locate target areas for restoration through an inventory of lost and degraded wetlands and evaluation of functions (Box b in Flowchart 2).
  - iii) Spatial analysis of catchments requires assessment of wetland functions at the catchment level (Box c of Flowchart 2). This defines the status of wetland functions and sets priorities for actions required to sustain both existing ecosystems and uses. The functional evaluation should locate wetlands with the most severe degradation problems, identify those functions that should be restored at the catchment level, and set the general provisions for restoration.
  - iv) After locating wetlands where restoration projects should be implemented, site-specific constraints should be recorded and evaluated in order to identify potential wetland restoration projects and set priorities for restoration (Box d of Flowchart 2). These should be identified at the catchment level and include ecological, scientific, technical, social, and economic parameters.
  - v) Site-specific constraints include the availability of natural resources, such as availability of water, landscape morphology, substrate characteristics, and presence of flora and fauna (Box e of Flowchart 2). For restoration of a wetland, there are several ecological constraints derived from climate, geomorphology, and various other characteristics of the catchment.

**Box 2. Issues to address in the assessment of the usefulness and feasibility of wetland restoration projects**

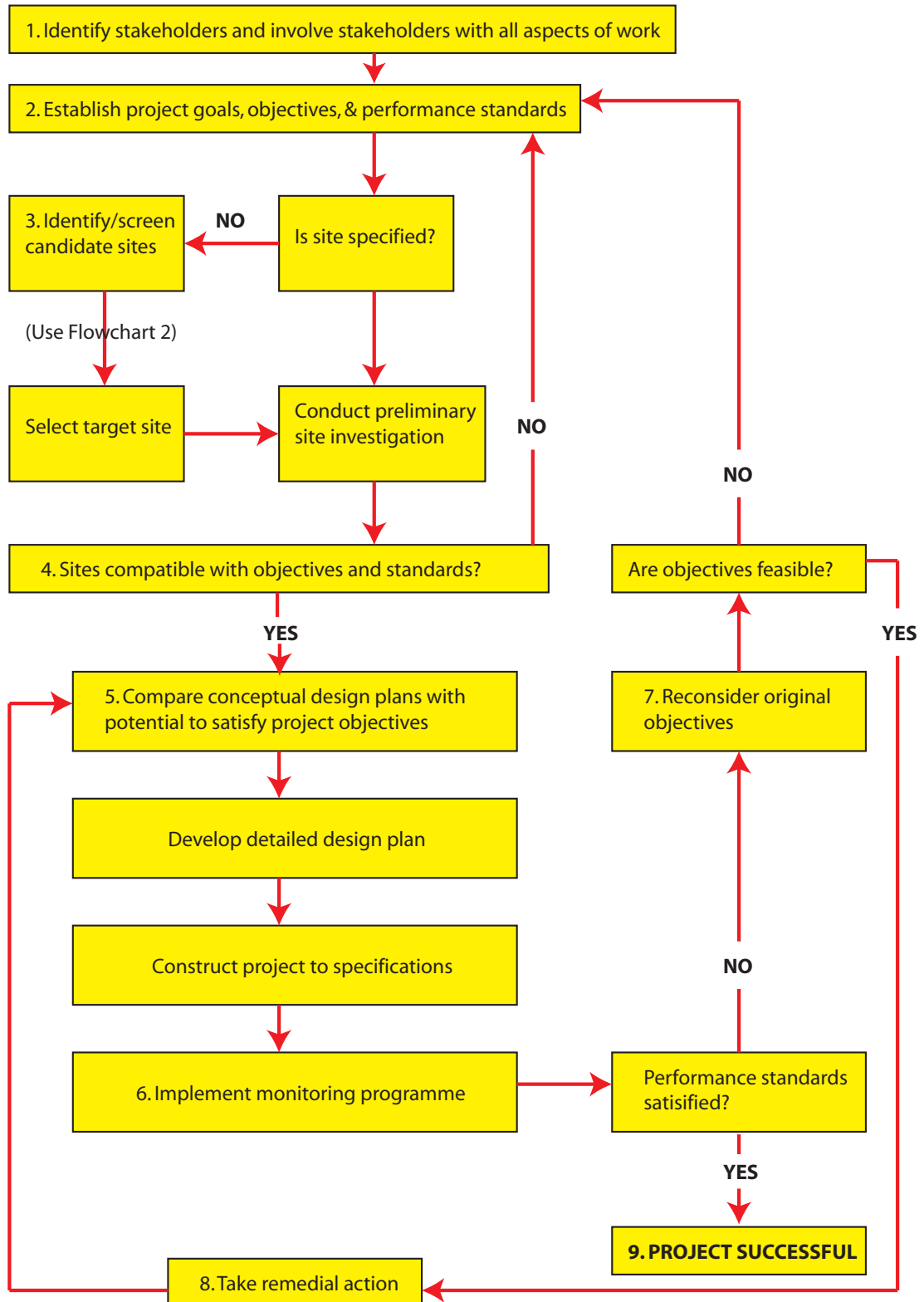
Assessments for the selection of appropriate wetland restoration projects should include the following questions (adapted from the Annex to Resolution VII.17):

- a. Will there be environmental benefits (for example, improved water quantity and quality, reduced eutrophication, preservation of freshwater resources, biodiversity conservation, improved management of “wet resources”, flood control)?
- b. What is the cost effectiveness of the proposed project? Investments and changes should in the longer term be sustainable, not yielding only temporary results. Aim for appropriate costs in the construction phase and appropriate running costs for future maintenance.
- c. What options, advantages or disadvantages will the restored area provide for local people and the region? These may include health conditions, essential food and water resources, increased possibilities for recreation and ecotourism, improved scenic values, educational opportunities, conservation of cultural heritage (historic or religious sites), etc.
- d. What is the ecological potential of the project? What is the present status of the area in terms of habitats and biological values, and in particular will any current features of wetland conservation or biodiversity importance be lost or damaged? How is the area expected to develop with respect to hydrology, geomorphology, water quality, plant and animal communities, etc.
- e. What is the status of the area in terms of present land use. The situation will differ widely between developed countries, countries with economies in transition, and developing countries, and within such countries depending on local circumstances, with respect to the objectives of restoration and rehabilitation. In particular, marginal lands yielding few benefits in the present situation can often be improved.
- f. What are the main socio-economic constraints? Is there a positive regional and local interest in realising the project.
- g. What are the main technical constraints?

- vi) In terms of socioeconomic factors, higher priority should be given to implementation of restoration projects that have public acceptance and active stakeholder involvement, that contribute to sustainable development, and that have some assurance of availability of the resources needed for realization (Box f of Flowchart 2).
- vii) A final decision (Box g of Flowchart 2) should be based on assessment of issues listed in Box 2 and which include consideration of:
  - a) spatial needs for the establishment of specific wetland functions;
  - b) the impacts of local decisions within a regional context;
  - c) the preservation, or rehabilitation if needed, of the soil and water resources of the catchment;
  - d) a plan for long-term change and unexpected events;
  - e) preservation of rare landscape elements, habitats, and associated species;

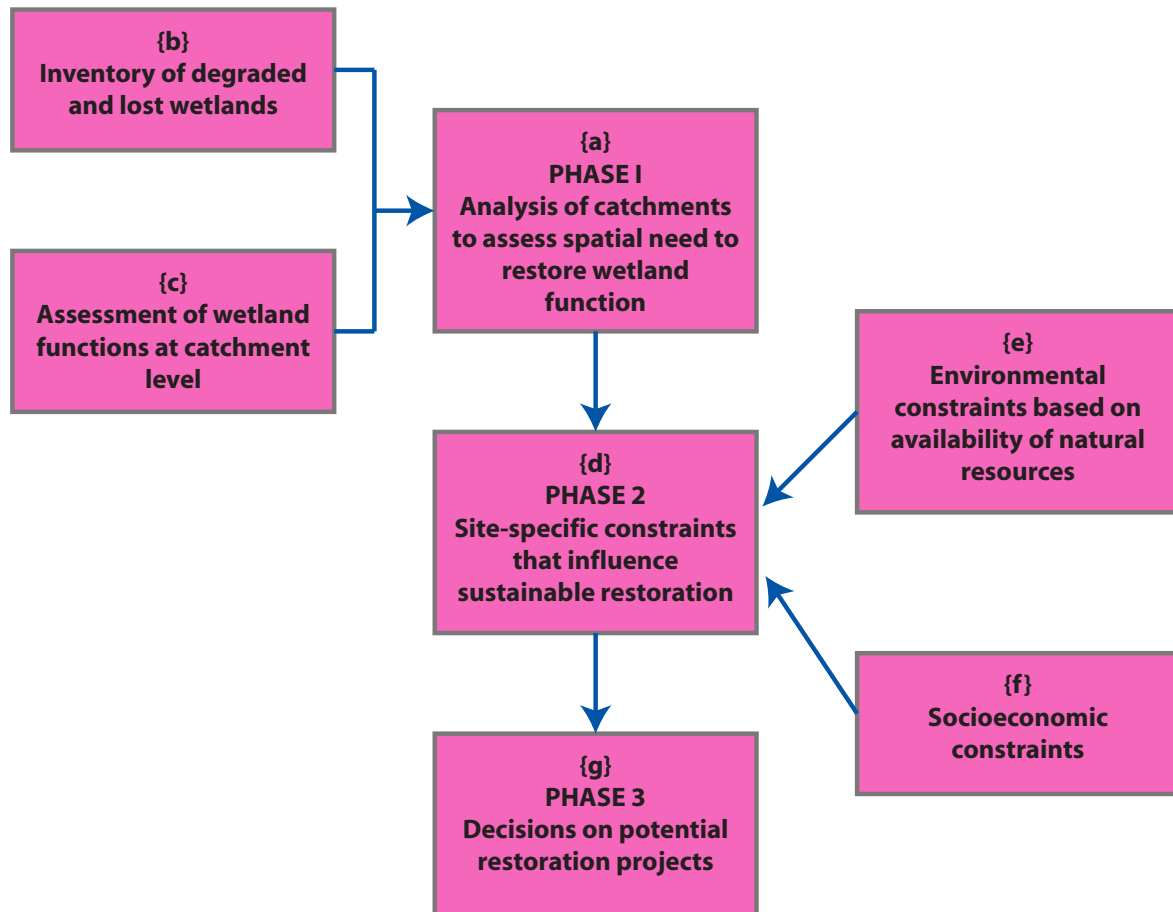
**Flowchart 1: Guidelines for wetland restoration**

Numbers correspond to numbers in parentheses in the text.



## Flowchart 2: Process for identification of potential wetland restoration projects

Letters correspond to explanations in the text.



- f) avoidance of or compensation for the effects of development on wetland functions; and
- g) the presence of land-use and management practices compatible with the natural potential of the wetland.

107. Site compatibility with goals, objectives, and performance standards: Once a site has been identified, project goals, objectives, and performance standards should be revisited to ascertain compatibility (Box 4 in Flowchart 1).
108. Project design (Box 5 in Flowchart 1): Because there is almost always more than one way to work toward project objectives, it is useful to consider alternative plans in the early stages of project design. Comparisons should consider rough cost estimates, likelihood of each plan to achieve project objectives, and the viewpoints of all stakeholders. One of these plans should be selected and developed into a detailed design plan that can be used to guide construction activities. Restoration plans should include training programmes to ensure that construction activities are undertaken in an appropriate manner. Consideration should be given to first developing and implementing a pilot project to test and refine the restoration methods.

109. Monitoring and meeting performance standards (Box 6 in Flowchart 1): Monitoring should focus on performance standards that are linked to project objectives. Effective monitoring programs should consider that all ecosystems undergo constant change and development and should account for both temporal and spatial variability.
110. When performance standards are not met (Boxes 7 and 8 in Flowchart 1): If performance standards are not met, careful reconsideration of the project is necessary. It may be that original goals, objectives, and performance standards are not feasible, in which case they should be reconsidered. If original goals, objectives, and performance standards are still considered feasible, remedial action should be taken. Remedial action could range from a few simple modifications to existing plans to a complete redesign of the project.
111. Often, restoration projects break new ground in the understanding of ecosystem processes, and in almost all cases restoration projects should be considered experimental in nature. Therefore, both revision of original goals, objectives, and performance standards and remedial action should be seen as a necessary part of the restoration process rather than as signs of failure.
112. Successful projects (Box 9 in Flowchart 1): If performance standards are satisfied, the project can be considered successful. However, ongoing stewardship and monitoring will be necessary to maintain this success. Also, stakeholders should re-examine the project to determine if they are still satisfied with the performance standards used to assess success (i.e. to determine if meeting performance standards equates to their sense of successful restoration). If stakeholders are not satisfied with the project outcomes even after performance standards have been met, it may be necessary to begin the entire process again.

## **G. Compensation and mitigation for wetland loss**

### **Relevant implementation commitments made by Contracting Parties in COP Recommendations and Resolutions**

#### **Resolution VII.24: Compensation for lost wetland habitats and other functions**

5. NOTING that effective wetland protection involves the conservation of wetlands as a first choice within a three-step mitigation sequence, including avoidance, minimization, and compensation, the latter only as a last resort;

THE CONFERENCE OF THE CONTRACTING PARTIES

10. URGES the Contracting Parties to take all practicable measures for compensating any loss of wetland functions, attributes and values, both in quality and surface area, caused by human activities.

113. The Kushiro Statement (Resolution 5.1) on the *Framework for the implementation of the Ramsar Convention* included a commitment of the Contracting Parties to restore degraded wetlands and to compensate for wetland losses.

114. Further to this, COP7 Resolution VII.24 on *Compensation for lost wetland habitats and other functions* (reproduced in Relevant Resolutions and Recommendations) recognized, for wetlands in general, “that effective wetland protection involves the conservation of wetlands as a first choice within a three-step mitigation sequence, including avoidance, minimization, and compensation, the latter only as a last resort”.
115. Resolution VII.24 also adopted the following general points of guidance concerning compensation for wetland losses, in:
- i) urging “the Contracting Parties to take all practicable measures for compensating any loss of wetland functions, attributes and values, both in quality and surface area, caused by human activities”;
  - ii) calling upon “Contracting Parties to integrate rules for compensation of wetland loss into their national policies on land and water planning”; and
  - iii) also calling upon “Contracting Parties to incorporate a preference for compensating for wetland loss with wetlands of a similar type and in the same local water catchment”.
116. Referring specifically to issues of the provision of compensation for Ramsar Sites under Article 3.2 of the Convention, in relation to invoking “urgent national interests”, the Annex to Resolution VIII.20 provides the following specific guidance in paragraph 4:
- “When invoking its right under Article 2.5 of the Convention in cases of urgent national interests, a Contracting Party should as far as possible compensate for any loss of wetland resources. When considering such compensation, a Contracting Party may take into account, *inter alia*, the following:
- 1) the maintenance of the overall value of the Contracting Party’s wetland area included in the Ramsar List at the national and global level;
  - 2) the availability of compensatory replacement;
  - 3) the relevance of the compensatory measure to the ecological character, habitat, or value of the affected Ramsar Site(s);
  - 4) scientific and other uncertainties;
  - 5) the timing of the compensatory measure relative to the proposed action; and
  - 6) the adverse effect the compensatory measure itself may cause.”
- [117. The Annex to Resolution IX.6 on *Guidance for addressing Ramsar Sites or parts of sites which no longer meet the Criteria for designation* extends the Resolution VII.24 reference to national policies (quoted above) to cover legislation – its paragraph 16 reads: “Parties should consider, if such policies and legislation are not already in place, establishing policies and legislative mechanisms for addressing third-party damage to the ecological character of listed Ramsar Sites, including the issue of compensation”].
118. [The STRP’s 2006-2008 and 2009-2012 Work Plans have included tasks (responding to Resolutions VII.24 and VIII.16) to further develop guidance on compensation for wetland losses and provide guidance on wetland mitigation issues, including lessons learned from available information on implementation of “no net loss” policies, the “urgent national interest” test,

and other aspects relating to situations in which Article 2.5 and 4.2 and/or Resolution VII.24 are relevant]. [...]

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## Appendix

### **Issues and scenarios concerning Ramsar Sites or parts of sites which cease to meet or never met the Ramsar Criteria (Ramsar COP9 DOC. 15)**

This information paper provides background information to Resolution IX.6 “Guidance for addressing Ramsar Sites or parts of sites which no longer meet the Criteria for designation”.

#### **Background**

1. At the 8<sup>th</sup> meeting of the Conference of the Contracting Parties (COP8), the Parties adopted Resolution VIII.21 on *Defining Ramsar Site boundaries more accurately in Ramsar Information Sheets* and Resolution VIII.20 on *General guidance for interpreting “urgent national interests” under Article 2.5 of the Convention and considering compensation under Article 4.2*.
2. COP8 also adopted Resolution VIII.22 on *Issues concerning Ramsar Sites that cease to fulfil or never fulfilled the Criteria for designation as Wetlands of International Importance*. In paragraph 6 of that Resolution, the Parties recognized that “there may be situations where:
  - a) a Ramsar Site never met the Criteria for designation as a Wetland of International Importance;
  - b) part of a Ramsar Site unavoidably loses the ecosystem components, processes, or services for which it was included, or was included in error; or
  - c) a Ramsar Site at the time of listing met the Criteria but, whilst its components, processes, and services remain unchanged, it later fails to meet the Criteria because of a change in those Criteria or in the population estimates or parameters which underpin them.”
3. The first of these situations was also addressed at COP5 in Resolution 5.3, the Annex to which set out a “Review procedure for listed sites which may not qualify under any of the Criteria established by Recommendation 4.2”.
4. In Resolution VIII.22 the Parties requested the Standing Committee, with support from the Secretariat and International Organization Partners, the Scientific and Technical Review Panel (STRP), appropriate legal and other experts, and interested Contracting Parties, to develop guidance on this issue and its relationship to those covered by Resolution VIII.20 and VIII.21. Specifically, paragraph 7 of Resolution VIII.22 proposed that “the following issues required further consideration:
  - a) identification of scenarios in which a listed Ramsar Site may cease to fulfil the Criteria for designation as a Wetland of International Importance;

### *Additional information*

#### **Invoking compensation as a response option**

Section 18 of the COP10 Information Paper on the *Background and rationale to the Framework for processes of detecting, reporting and responding to change in wetland ecological character* (Ramsar COP10 DOC.27) makes some comments on the issues involved in decision-making on compensation cases.

Clearly, if change proceeds to the extent of a decision to restrict the boundary of the designated area of a Ramsar Site, or to de-list it altogether (provided that the strict “urgent national interests” test in Article 2.5 for allowing either of these actions has been met), then under Article 4.2, compensatory habitat provision is required.

Article 4.2 provides as follows: “Where a Contracting Party in its urgent national interest, deletes or restricts the boundaries of a wetland included in the List, it should as far as possible compensate for any loss of wetland resources, and in particular it should create additional nature reserves for waterfowl and for the protection, either in the same area or elsewhere, of an adequate portion of the original habitat”.

Resolution VIII.20 on *General guidance for interpreting “urgent national interests” under Article 2.5 of the Convention and considering compensation under Article 4.2* lists issues which should be taken into account in considering compensation in these circumstances (see paragraph 115 of this Handbook)

The Annex to Resolution IX.6 on *Guidance for addressing Ramsar Sites or parts of sites which no longer meet the Criteria for designation* (in its paragraph 15) interprets the item concerning “the maintenance of the overall value of the Contracting Party’s wetland area included in the Ramsar List” to mean that “at least equivalent provision of compensation should be made”.

It should be noted that the trigger for compensation under Article 4.2 is not the ecological character change itself, but instead the administrative decision that the designation should be changed, on the basis that the ecological change concerned is deemed to be irreversible.

This is logical, because until such a conclusion is reached, the first response to character change should be to endeavour to reverse it. This is reflected in the “three-step mitigation sequence” expressed in the Resolution and referred to in paragraph 114 of this Handbook.

If, however, irreversible negative changes have occurred and yet no decision is taken to amend or de-list the designated area, the Convention text does not require compensation, and this could be regarded as an anomaly.

In such cases, Resolution VII.24 on *Compensation for lost wetland habitats and other functions* becomes the primary source of an expectation that compensation should be provided. (This Resolution is not to be read as complementary to Article 4.2 – in fact, it applies to Ramsar Sites just as much as it does to other wetlands). Key elements of the Resolution are referred to in paragraph 115 of this Handbook.

Two further scenarios may arise in which compensation is necessary. The first is defined by Resolution 5.3 on a *Procedure for initial designation of sites for the List of Wetlands of International Importance*, Annex 1 of which is a *Review procedure for listed sites which may not qualify under any of the Criteria established by Recommendation 4.2*, and which, in paragraph 4 of this Annex, provides as follows: “When, following consultation between the Convention Bureau and



the Contracting Party concerned, it is agreed that a site failed at the time of designation to qualify under any of the criteria, and that there is no possibility of extension, enhancement, or restoration of its functions or values, it shall instruct the Convention Bureau to remove the site from the List and shall apply the provisions for compensation, as provided in Article 4.2 of the Convention.”

The second additional scenario relates to certain exceptional cases of “likely” ecological character change affecting a Ramsar Site. Normally, as discussed above, the sequence of actions would see compensation as a final resort when other possibilities are exhausted, and normally this point would arrive when the change had already occurred. However, in some cases where avoidance, prevention and remediation of change can with certainty be predicted (for example, an “urgent national interest” case has run its full course of decision-making, and scientific assessments predict with confidence the impossibility of maintaining the site’s character *in situ*), then even if the change has not yet occurred, it may be prudent to commence compensatory measures in advance of the change, so that, for example, affected biodiversity interests have some opportunity to translocate.

- b) obligations of Contracting Parties under the Convention, and the possible application of compensation measures under Article 4.2; and
  - c) procedures that could be applied should the deletion or restriction of boundaries need to be contemplated in such situations.”
5. The 29<sup>th</sup> meeting of the Standing Committee (Decision SC29-16) requested the Ramsar Secretariat to prepare a report on these matters for consideration at its thirtieth meeting.
  6. Accordingly, this information paper has been prepared by the Ramsar Secretariat, with the assistance of Dave Pritchard ([then of] BirdLife International) and input of information on boundary changes supplied by Contracting Parties, as supporting information for consideration of COP9 Resolution IX 7 and its annexed guidance on these matters. In support of this work the Secretariat has sought to identify relevant cases concerning different circumstances of Ramsar Site boundary changes or proposed boundary changes from materials supplied by Contracting Parties.

#### **General considerations concerning the scope and coverage of further guidance**

7. Many cases received by the Secretariat of boundary changes (and any associated changes in the area designated) concern matters covered by Resolution VIII.21. In particular, in the provision of updated Ramsar Information Sheets (RISs), including maps, for sites listed some time ago, many Contracting Parties now have access to Geographical Information System mapping systems and can provide more precise maps and delineated boundaries for a site, where the previous version of the RIS may have included only a rough map with an approximately drawn boundary.
8. There is a discrepancy between the terms of paragraphs 6 and 7 of Resolution VIII.22 concerning situations where only part of a listed site loses the components, processes, or services for which it was included and that part is proposed for removal from the listed site. This is recognized as a

possibility in paragraph 6b) and “procedures for restriction of boundaries” are mentioned in paragraph 7c), but it is not foreseen among scenarios called for in paragraph 7a). This is important, since cases of restriction of boundaries, whether “urgent national interest” has or has not been invoked, appear to be a more commonly arising situation than the deletion of an entire Ramsar Site from the List. Therefore, for the purposes of this paper, boundary restriction scenarios are included.

9. The extent of coverage of habitat types in relation to a wetland itself in a listed site varies greatly, often depending upon the land and water use planning and management policy and approach applied by different Contracting Parties. In some situations, a large area of non-wetland catchment is included within the listed site in order to facilitate the system’s integrated management (as permitted under Article 2.1); in others, only (or mostly) the wetland habitat itself is designated. Consideration of proposals for the removal of non-wetland habitats from a listed site may therefore have very different significance or implications in different places and countries, and it should be noted that, for the purposes of securing the management and sustainable use of a wetland it is entirely acceptable, where appropriate under national processes, to include non-wetland habitat within a Ramsar Site.
10. The approach of applying zonation systems, including buffer zones, within Ramsar Sites in order to facilitate their effective management planning has been emphasized by Recommendation 5.1 and by the *New Guidelines for management planning for Ramsar Sites and other wetlands* (Annex to Resolution VIII.14).
11. As a general principle for any decision-making about restriction or removal of a designated site from the List, the Vision for the List (Resolution VII.11) should be kept in mind:

“to develop and maintain an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the ecological and hydrological functions they perform.”
12. It should also be recalled that the purpose of designating an area as a Ramsar Site is in the first instance to recognize the international importance of the site as part of coherent and comprehensive national and international networks, and to facilitate management processes which maintain the ecological character of the sites for the conservation of their biodiversity and their sustainable use through the continued provision of their goods and services to people.
13. For the purposes of developing guidance for responding to damaging changes to sites, it follows that there should be no distinction between whether it is all of a designated site that is affected or only part of it, since both situations indicate a reduction in the capacity of the suite of internationally important wetlands in a country to deliver their ecosystem services.

*Additional information*

**Creating a global approach to avoiding, minimizing and offsetting wetland loss**

A workshop on “A Global Approach to Avoiding, Minimizing and Offsetting Wetlands Loss” was convened as part of the IUCN World Conservation Congress Forum in Barcelona, Spain, in October 2008, by The Nature Conservancy (TNC) with a panel including expert representatives of Wetlands International, TNC, the World Bank, Shell International Corporation, the Ramsar Secretariat, and the Ramsar STRP. A report of this was given to Ramsar Parties in Information Paper 36 at COP10 in 2008 ([www.ramsar.org/pdf/cop10/cop10\\_doc36\\_e.pdf](http://www.ramsar.org/pdf/cop10/cop10_doc36_e.pdf)).

Issues and approaches identified during the workshop included the following:

- Although wetland protection laws and practices vary across countries, many jurisdictions require that adverse wetland impacts from development projects be alleviated through offsets or compensatory mitigation (e.g., wetland restoration);
- Climate change will increase the value and importance of wetland offsets;
- Approaches adopted under the Ramsar Convention essentially embody a sequence of a) maintaining the ecological character of a wetland, b) restoring degraded character, and if this is not possible, c) compensating or mitigating for loss of character. Thus a mitigation protocol of “avoid, minimize, offset” could be an important tool for conserving wetlands;
- In providing guidance on wetland “mitigation” and “offsets”, there is a risk of confusion about such terminologies that needs to be avoided. The terms “compensation” and “mitigation” may be different in current usage. In the STRP context, “mitigation” is seen in terms of mitigation for losses of wetland area and wetland values. However, the terms “mitigation” and “offsets” are increasingly being used in terms of using wetlands for mitigating and offsetting the impacts of climate change, including through “avoided wetland degradation”;
- Recent efforts in mitigation banking and in-lieu fee mitigation projects, primarily in the U.S., show great potential for providing ecosystem services. Most development is supported by long-term borrowing that can finance meaningful offsets as a project cost rather than through tax revenues, thus being a path of less resistance. Examples from developing countries however have demonstrated risks associated with mitigation and offsetting, namely that infrastructure and other developers can bypass avoidance and minimization and go directly to offsets in order to speed up project approval. In the absence of strong regulatory regimes, this could provide “green cover” to wetland loss.

The workshop made recommendations relating to the future work of the STRP on this subject, including a call for voluntary pilot projects. For further details [www.ramsar.org/pdf/cop10/cop10\\_doc36\\_e.pdf](http://www.ramsar.org/pdf/cop10/cop10_doc36_e.pdf).

### **Scenarios for potential boundary restriction or delisting of listed sites**

14. A considerable range of scenarios can be envisaged, and some have arisen on particular sites. Ten scenarios are described below, with a brief identification of issues to consider in addressing and responding to each.

**Scenario 1. At the time of accession a Party supplies, as required by the Convention text, only a name and boundary map but not a completed Ramsar Information Sheet (RIS). Subsequently, in compiling the RIS, it becomes apparent that the site does not fulfil any of the Criteria.**

15. This scenario is addressed by the review procedure annexed to Resolution 5.3. To avoid this scenario arising, all countries preparing for accession should be strongly encouraged to prepare a draft RIS in advance of their formal accession and consult with the Ramsar Secretariat as to whether the proposed site meets one or more of the Criteria. This approach is increasingly being used by countries preparing for accession to the Convention.

**Scenario 2. A Ramsar Site designated by a former Contracting Party is now within the territory of a successor country which is presently acceding to the Convention and indicating a different boundary and area for that site.**

16. This situation has arisen with the accession of Azerbaijan and its designation of Chizil-Agaj Bay, with a smaller area being specified than that of the Kirov Bays Ramsar Site listed by the former Soviet Union.
17. In such cases, it is the sovereign right of the present Contracting Party to determine which areas it will designate as a Ramsar Site. Any such sites can be treated as new designations, and the site designated by the former Party would then be removed from the List, although the new Party should be encouraged to maintain the original boundaries if appropriate for reflecting the international importance of the wetland concerned.

**Scenario 3. The site was designated incorrectly owing to inadequate or incorrect information being available at the time of preparation of the RIS (or pre-RIS information provided at the time of listing), and it subsequently becomes apparent that the site as a whole does not fulfill any of the Criteria.**

18. If it is established that none of the Criteria can currently be applied, a similar procedure should be followed as for a site where the ecological character has deteriorated such that it ceases to meet the Criteria (see Scenario 9 below). The procedure annexed to Resolution 5.3 is relevant here. This specifies that an evaluation should be carried out of “whether or not any measures can be introduced to extend, enhance, or restore the wetland’s functions and values to such a degree that it would qualify for inclusion in the List”. Only when it is agreed that there is no possibility of doing this might removal from the List be contemplated. Resolution 5.3 then provides that the compensation provisions of Article 4.2 of the Convention would be applied.
19. Any proposal to delist a site under this scenario should be accompanied by a detailed statement of its current ecological character and an explanation with evidence to support the case that the original justification for the Criteria applied was incorrect. If this evidence is not clear, it is possible that

another scenario – that of a deterioration of the ecological character of the wetland (Scenario 9) – applies instead, in which case the tests and approach for responding to that scenario should be followed.

20. This scenario arose in the early 1990s concerning three sites listed early in Pakistan’s membership of the Convention, and the sites concerned were, with the agreement of the Administrative Authority, removed from the List in 1996. Three further Ramsar Sites were designated as a form of compensation.
21. A similar situation may exist concerning Ramsar Sites in Greenland (designated by Denmark) and is currently under review by Denmark in consultation with the Greenland Home Rule government, concerning at least one site which appears to have been designated based on incorrect overestimates of the size of its waterbird populations. However, the issue here is complicated by growing evidence that a number of sites in Greenland may have lost, or are continuing to lose, their significance owing to heavy human pressures (in this case, waterbird hunting).
22. Resolution VII.23 recognizes that there are situations “where boundaries may warrant further definition . . . where [they] were erroneously or inaccurately defined at the time of listing”. Removal of a whole Ramsar Site from the List under this scenario can be regarded as an extreme case of boundary reduction owing to originally inadequate or incorrect information at the time of designation.
23. Here a first step would be to re-examine the current ecological functions, features and values of the wetland to establish clearly whether it currently fulfils a Criterion or Criteria, even if these are different Criteria from those originally used for listing. If so, a revised RIS should be provided and the site should remain on the List.

**Scenario 4. A Ramsar Site is designated after completion of a domestic protected areas procedure under national legislation, such that the Ramsar Site boundary follows that established for the site first selected for its national importance, and the boundaries of the nationally-designated site are then changed.**

24. This is a procedure followed by a number of Contracting Parties. In most cases this leads to expansion of the area and boundaries of a Ramsar Site, as further areas complete their domestic legislation procedure, but in some cases review under national legislation leads to the removal of part of the areas of the Ramsar Site.
25. This scenario has arisen in the UK, where for example a major extension to the Norfolk Broads Ramsar Site also included removal of small parts of the former site owing to deletion of these parts following a revision of the areas designated domestically as a Site of Special Scientific Interest.
26. A second example, the subject of a Ramsar Advisory Mission in 2001, concerns the Parc National de la Keran Ramsar Site in Togo, the boundary of which is the same as a previously designated National Park. Here, a review of the National Park boundaries involving local communities has led to a proposal to remove non-wetland areas from the National Park because of increasing farming activity by incoming communities, but at the same time

to significantly extend the Ramsar Site in other areas to include the whole wetland rather than only that part originally within the National Park. A similar situation concerning changes to a National Park boundary has arisen in the Ebro Delta Ramsar Site, Spain.

27. In some cases, sites such as National Parks may have been declared for ecological interests not solely concerning wetlands, and hence such sites can include substantial areas of non-wetland habitat not directly linked to the maintenance of the ecological functioning of the wetland component. Any consideration of a proposed boundary restriction in such cases should be based on an assessment of whether the wetlands are ecologically or hydrologically linked with other non-wetland areas within the site boundary.
28. A related situation could arise in European Union countries concerning designation of Natura 2000 sites (Special Protection Areas (SPAs) under the EU 'Birds Directive' and/or Special Areas of Conservation (SACs)). For procedural and administrative purposes a Party may wish to harmonise the boundaries of an area that is designated as both a Ramsar Site and a Natura 2000 site. In doing so, if a larger area has been designated as a Ramsar Site prior to the defining and designation of a more restricted boundary for a Natura 2000 site, this could lead to a proposed restriction to the Ramsar Site boundary.
29. When considering such situations, it needs to be borne in mind that whilst the habitat and species features for which Natura 2000 and Ramsar Sites are designated are similar (and, for example, for biogeographic populations of migratory waterbirds are the same), some aspects of the Ramsar Criteria are broader than the Natura 2000 approach. These are notably the limnological features and hydrological services covered by Ramsar Criteria 1.
30. The Ramsar European Regional preparatory meeting for COP9 (Yerevan, Armenia, December 2004) concluded that "focusing wetland conservation exclusively on the objectives of the 'Natura 2000' network (or the 'Emerald' network in non-EU countries) would be a trap. Ramsar's focus is wider than only natural habitats and species and relates for example to the objectives of the EU Water Framework Directive." Furthermore, United Kingdom experience of Ramsar Site review, focusing on under-represented habitat types and threatened species, indicates that Ramsar can be used as tool to protect habitats and species not listed on the Annexes of the EU Birds and Habitats Directives.
31. It follows that if a boundary restriction to an existing Ramsar Site is being considered so as to harmonise it with a Natura 2000 site boundary, the first step should be to carefully evaluate the purposes and reasons for the original Ramsar Site designation, in relation to the habitat and species features for which the site is being designated under Natura 2000. If aspects of the Ramsar Site designation address features and services additional to, or broader than, those of the Natura 2000 designation, it would not be appropriate to restrict the Ramsar Site boundary for solely administrative purposes.

**Scenario 5. A set of linear boundaries have been used to define the Ramsar Site boundaries which do not relate directly to the distribution of the wetlands or their associated catchments.**

32. Here a boundary change proposal may arise in which it is considered appropriate to align the boundary of the designated site more closely with the location of the wetland areas for which the site has been identified as internationally important, including, where appropriate, other surrounding ecologically or hydrologically linked ecosystems.
33. The envelope of the site boundary should have been drawn so as to encompass the wetland ecological features and services of relevance to site designation, but may currently include areas of other ecosystems and land uses, including urban areas, which would more usually fall outside the purpose of Ramsar listing. However, in some situations a linear boundary may cut across and exclude some parts of an interlinked wetland system, and any consideration of boundary revision may also lead to proposals to extend some boundaries.
34. For 'terrestrial' wetlands, such boundaries may have been established for administrative purposes along geopolitical borders such as provincial boundaries. A linear boundary not directly reflecting the wetland ecosystem area may also occur where a transboundary wetland is being designated, since a country can only designate that part of the wetland within its territory.
35. Linear boundaries are also frequently used to delimit the outer (seaward) limits of a coastal and marine Ramsar Site, again particularly where there is a jurisdictional seaward limit established under national or international legislation. Such a boundary approach for marine systems would seem both appropriate and beneficial for a clear understanding of where the limits to the designated site occur, more practical than attempting a surface mapping of often complex underwater topography.
36. Therefore the issue of a potential boundary revision under this scenario is more likely to arise for sites involving terrestrial ecosystems than for coastal/marine systems.
37. In 2001 Australia undertook a case study for developing an appropriate approach to possible boundary revisions to its Coongie Lakes Ramsar Site. The study was also intended to provide experience of how general principles and guidelines might be developed for boundary change issues. The boundary established at the time of designation of this area of wetland complexes is a triangular linear boundary encompassing most, but not all, parts of the wetland systems, and also including significant areas of non-wetland habitats. The recommendations of the study stress the importance, before considering any boundary changes, of undertaking a full assessment of the features, components and services of the wetlands and of full stakeholder participation in any deliberations. The Secretariat is not aware of any subsequent proposal from Australia for implementing a boundary re-definition of this site.

**Scenario 6. Part or all of a listed Ramsar Site is proposed for deletion in order to permit possible future developments in that area.**

38. Any such cases would fall under the provisions of Articles 2.5 and 4.2 of the Convention, concerning “urgent national interest” and compensation, and hence would be addressed under the terms of Resolution VIII.20. Unless “urgent national interest” can be appropriately invoked, restriction or deletion for development or other land-use change purposes would not be justified under the Convention.

**Scenario 7. The site’s components, processes, and services remain unchanged, but it subsequently fails to meet the Criteria owing to a change in those Criteria.**

39. No Criterion has been entirely deleted since the adoption of the first official set of Criteria at COP1 in 1980 – although two areas of the 1974 recommended Criteria (‘importance for research or education’ and ‘practicality for conservation’) were not present in COP1’s first official set, it is not believed that this affected the eligibility of any Ramsar Sites designated between 1974 and 1980. Nor is the Secretariat aware of any such situations arising as a consequence of the revisions to the Criteria in Resolution VII.11. Indeed, the restructured Criteria adopted by that Resolution were designed to cover the same ecological character components, processes and services as the earlier Criteria.
40. Unless a COP decision is made to delete one or more Criteria from the current set, it is highly unlikely that this scenario will ever arise.

**Scenario 8. The site’s components, processes, and attributes remain unchanged, but it subsequently fails to meet the Criteria owing to a change in the population estimates or parameters which underpin them.**

41. This scenario is most likely to arise in relation to Criterion 2 (threatened species) or Criterion 6 (1% of waterbird populations). The situation would apply to a whole site ceasing to meet the Criterion, since such Criteria are applied to the whole unit being designated and not to its component parts. It will most likely arise where a site has been designated using only one such Criterion and for only one species or biogeographic population. The Secretariat is not aware of any cases of this scenario yet arising.
42. Concerning Criterion 2, this could arise if the IUCN Red List status of a species is changed, most likely by being downgraded from its threatened status owing either to improved knowledge or an increase in the health of its status. However, the Strategic Framework guidelines for the application of Criterion 2 indicate that a site may be listed under this Criterion if it supports either a globally threatened species or a species which is nationally threatened (e.g., listed in a national Red Data Book or under national legislation). Even if the globally threatened status were to change, the site might therefore still qualify under the nationally threatened species option, and this should be checked first before any further consideration of delisting.
43. Concerning Criterion 6, such a situation would arise if the population size of a waterbird remains stable in the Ramsar Site, but the population estimate and 1% threshold is increased in Wetlands International’s periodic Waterbird Population Estimates volumes. With a population under increase, at times wetlands at the core of the population range become ‘full’ (i.e., their carrying capacity reaches its limit) and numbers of birds using more peripheral



sites within the range increase. The converse scenario, where a waterbird population proves to be in decline, is addressed under Scenario 9 below.

44. In all such cases it is important to set what is happening in the Ramsar Site itself within an understanding of what is happening in terms of numbers, distribution and status of the relevant biogeographic population as a whole. Furthermore, since many migratory waterbird populations have fluctuating annual breeding success and hence varying total populations in different years, any assessment of numbers and population percentages using a site should be made over a period of years, and this Criterion concerns populations for which at least 1% of the population “regularly occurs” at the site – the guidelines for the application of this Criterion indicate that this should be assessed over at least recent five-year periods. If a population appears now to fall below a new 1% threshold, monitoring for several years should be a first step in assessing whether such a situation is merely short-term or not, before any delisting of a designated site is considered.
45. In both cases, then, an appropriate first step is to determine whether the site currently meets other Criteria which were not applied in the original designation. For waterbirds, it is often the case that even if Criterion 6 ceases to apply, the site will still qualify under Criterion 4 (critical stages in life-cycles) and/or Criterion 3 (maintaining the biological diversity of the region) by virtue of the guild of waterbird species the site supports.
46. The Secretariat has not been made aware of any proposals by Contracting Parties for boundary revisions arising under this scenario.

**Scenario 9. All or part of a Ramsar Site loses the components, processes, and services of its ecological character as a wetland for which it was listed.**

47. Partial loss or deterioration of a designated wetland’s ecological character is likely to be the most frequently arising scenario that could lead to a boundary restriction being considered.
48. Deletion of an entire site from the List is likely only to be considered when only one of the eight Criteria has been used for the original designation (except in cases where the ecological character of the site has been wholly destroyed). In reviewing RISs supplied by Parties, the Secretariat often concludes that one or more additional Criteria are fulfilled by the characteristics of the site, and a detailed review of current, improved knowledge of the site since the RIS was last compiled, against the Criteria that presently apply, should be an early step in any process.
49. Resolution VIII.22 paragraph 6 concerns sites which “unavoidably” lose their importance. This is a significant issue, and it is essential to make a distinction between what is “avoidable” and what is “unavoidable”. Nevertheless, in many cases it may be hard to make such a clear distinction, particularly where the loss of ecological character is caused by indirect, off-site changes (e.g., climate change or water abstraction).
50. In particular, it begs the question that if a change was “avoidable”, by whom should it have been avoided and what steps should a Contracting Party have been expected to take to avoid the damage occurring in the first place – logically this should cover all relevant decision-making at local, subnational and national scales affecting directly or indirectly the ecological character

of the listed site, since it is national governments, through their appointed Administrative Authorities, that assume responsibility for the provisions of the Convention.

51. The most likely cases of a truly unavoidable loss of ecological character are probably those occurring as a consequence of a natural disaster, such as a hurricane, typhoon or storm surge, or perhaps even excessive flooding – although such floods might sometimes also lead to creation of wetland areas. Even though such damage might lead to a designated site losing the ecological character for which it was designated, the resilience of many wetland systems means that subsequent recovery is often a real possibility. Such issues of recovery potential – i.e., only a temporary loss of ecological character occurring – should be fully assessed before any consideration for delisting or restriction of a site is considered.
52. If the damaging change was “avoidable”, it follows that, in principle, in allowing the change to have occurred the Party should have invoked Article 2.5 of the Convention, concerning “urgent national interest”. However, a number of other situations of at least potentially avoidable change can be envisaged as a consequence of third-party actions, where the damage occurred before it could be identified or prevented.
53. Several cases of such situations have arisen, concerning for example unauthorised destruction or damage to part of a listed site, either by private landowners or by third parties engaged in extractive or other land-use activities. A current case is under consultation between Uruguay and the Secretariat concerning the destruction of part of the Bañados del Este through house-building by a private landowner within the Ramsar Site. Similarly, the government of Australia has recently made an Article 3.2 report concerning damage (in this case by agricultural intensification) by a private landowner of part of the Gwydir Wetlands Ramsar Site, and it has taken action under domestic legislation to resolve the matter.
54. Another case under this scenario concerns several Ramsar Sites in the Islamic Republic of Iran, some of which have been placed on the Montreux Record. Here, recent and prolonged drought has led to the drying up of the wetlands and the disappearance of the internationally important waterbird populations for which the sites were originally designated. The loss of water supply to the wetlands has, in conditions of drought, been exacerbated by abstraction of upstream water for agricultural irrigation. In this situation, the loss of ecological character can be viewed as at least partially avoidable and reversible if and when the drought situation improves and through changes to agricultural practices in catchments so as to increase environmental flows of water to the Ramsar Sites. In such circumstances it would seem most appropriate that such sites remain on the Ramsar List pending actions to address the loss of ecological character, and indeed maintaining the Montreux Record status of the sites is intended to assist in addressing the issue (including through provision of resources, as by a recently approved UNDP-GEF project for Iranian wetlands) – a situation which removal of the sites from the List would not support.
55. Therefore, in considering what steps should be taken concerning delisting or reduction of the boundaries of a site which has already suffered damage, it is important first to consider whether the damage or change is or is not

reversible, rather than the issue of whether the damage was “avoidable” or not. If there is potential or likelihood that the situation will reverse, or can be reversed through appropriate management interventions (such as restoration or removal of the driver of the change), then the case for delisting or restriction would not be considered to have been made.

56. In the case of quantitative waterbird Criteria 5 and 6, as suggested above, monitoring of the situation is needed for at least several years before pursuing any case for delisting, since these Criteria concern the ‘regular occurrence’ of waterbirds over at least a five year period.
57. In fact, a further reason for delaying any such delisting in relation to Criterion 6 concerns the agreed approach to establishing 1% population thresholds. Owing to the inter-annual variability in the size of many waterbird populations (often due to differences in breeding success in different years), thresholds are set, in all but exceptional circumstances, to be medium-term stable – generally for a nine-year period. Thus there can be a time-lag between a change in the biogeographic population estimate and its associated 1% threshold on the one hand, and annual numbers recorded at individual sites on the other. Thus if a population is in overall decline at its next evaluation, a lower 1% threshold will be set, which may reveal that the smaller numbers of birds observed at a Ramsar Site still qualify the site under the Criterion.
58. The question of removing only a part of a designated site owing to the loss or deterioration of that part’s ecological character introduces some additional considerations. The Strategic Framework (Resolution VII.11) is clear that in identifying sites which qualify for designation, it is the whole area selected which provides the features, processes and services for which the site is internationally important.
59. The Criteria do not establish the target status of these features, processes and services to be maintained – rather, they establish the minimum thresholds for the identification of internationally important wetlands. The target status is provided by the description of ecological character of the site in the Ramsar Information Sheet, which establishes the full scale and extent of the importance of the site, and this will often far exceed the minimum thresholds established in the Criteria. Therefore it would be invalid to contemplate a boundary restriction only on the grounds that the restricted site would anyway continue to meet the Criteria for which it was originally selected.
60. A clear illustration of such invalidity can be shown with quantitative Criterion 6, under which a site qualifies for designation if it regularly supports 1% or more of a biogeographic waterbird population. Many such sites support considerably in excess of 1% of a population. The larger the proportion of a particular population the site supports, the more critically important that site is likely to be for the survival of the population. It is clearly not an appropriate response to reduce a site designated for holding, say, 10% of a population to an area which holds just 1% of that population. Such an action could very well lead to an overall decline in that population, which would run wholly counter to the conservation and sustainable use objectives of the Convention.

61. Furthermore, if such an approach were to be followed, any consequent population decline would then lead to a reduced 1% threshold number for that population, so that an even smaller site area would still support just 1% of such a reduced population. Following such a site reduction approach to its logical end would lead to the extinction of that population. A similar argument can be applied to the other selection Criteria.

**Scenario 10. A Contracting Party has designated only one Ramsar Site (at the time of its accession) and that site ceases to qualify under the Criteria.**

62. Such a situation could arise under a number of the other scenarios outlined above.
63. In this situation, a key question which would immediately arise is whether or not the country concerned is still legally a Contracting Party. Further legal advice on this would be necessary.
64. However, one plausible interpretation of the Convention text is that the requirement is only that the country must validly designate a wetland which qualifies as internationally important at the time they accede to the Convention, and there is nothing in the Convention text concerning the legal status of that Party in the event of something subsequently happening to that site such that it no longer qualifies.
65. Regardless of any such legal issues, one obvious and immediate step for a Party to take under this scenario would be to designate another site for the List. In almost all countries it is very unlikely that no other wetlands would qualify for designation – only in countries with very small territories and very few wetlands might such a step be a problem.
66. As of June 2005, there were 39 Contracting Parties which had each designated only one Ramsar Site and in which this scenario could theoretically arise.



Hamun-e-Puzak, a Montreux Record Ramsar site in the Islamic Republic of Iran. *Photo: D. A. Scott.*

## **Relevant Resolutions and Recommendations**

### **Recommendation 4.8**

*(adopted by the 4th meeting of the Conference of the Contracting Parties, Montreux, Switzerland, 1990)*

#### **Change in ecological character of Ramsar Sites**

RECALLING that Contracting Parties “designate suitable wetlands within their territory for inclusion in a List of Wetlands of International Importance” (Article 2.1), “formulate and implement their planning so as to promote the conservation of the wetlands included in the List” (Article 3.1) and inform the Bureau “if the ecological character of any wetland in (their) territory and included in the List has changed, is changing, or is likely to change as the result of technological developments, pollution or other human interference” (Article 3.2);

EMPHASIZING the fundamental importance of maintaining the ecological character of listed sites;

REFERRING to Conference document DOC. 3.6 of the Third Meeting of the Conference of the Contracting Parties which identifies Ramsar Sites that have incurred damage, and Recommendation 3.9 of the Conference of the Contracting Parties which calls upon the Contracting Parties concerned to report to the Bureau on actions taken to safeguard these sites;

NOTING the information on Ramsar Sites whose ecological character has changed, is changing, or is likely to change, as provided by Contracting Parties to the Fourth Meeting of the Contracting Parties, and summarized in document DOC. 4.18;

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REQUESTS the Contracting Parties in whose territory are located sites which have incurred or are being threatened by change in ecological character to take swift and effective action to prevent or remedy such changes;

INSTRUCTS the Convention Bureau, in consultation with the Contracting Party concerned, to maintain a record of Ramsar Sites where such changes in ecological character have occurred, are occurring or are likely to occur, and to distinguish between sites where preventive or remedial action has not as yet been identified, and those where the Contracting Party has indicated its intention to take preventive or remedial action or has already initiated such action; and

FURTHER INSTRUCTS the Convention Bureau to give priority to application of the Ramsar Monitoring Procedure, within the limits of budgetary constraints, at sites included in this record.

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### **Resolution 5.4**

*(adopted by the 5th meeting of the Conference of the Contracting Parties, Kushiro, Japan, 1993)*

#### **The Record of Ramsar Sites where changes in ecological character have occurred, are occurring, or are likely to occur (“Montreux Record”)**

RECALLING that Contracting Parties “designate suitable wetlands within (their) territory for inclusion in a List of Wetlands of International Importance” (Article 2.1), “formulate and implement their planning so as to promote the conservation of wetlands included in the List” (Article 3.1), and inform the Convention Bureau “if the ecological character of any wetland in (their) territory and included in the List has changed, is changing, or is likely to change as the result of technological development, pollution, or other human interference” (Article 3.2);

FURTHER RECALLING that Recommendation 4.8 adopted by the Fourth Meeting of the Conference of the Contracting Parties instructed the Convention Bureau, in consultation with each Contracting Party concerned, “to maintain a record of Ramsar Sites where such changes in ecological character have occurred, are occurring, or are likely to occur”;

RECOGNIZING the value of such a record in identifying priorities for the Monitoring Procedure, the Wetland Conservation Fund, and other financial mechanisms;

DRAWING ATTENTION to Resolution 5.5 (“Establishment of a Scientific and Technical Review Panel”);

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DECIDES that the record established by Recommendation 4.8. should generally be referred to as the “Montreux Record”, although its full title (“Record of Ramsar Sites where changes in ecological character have occurred, are occurring, or are likely to occur”) should be retained as a subheading for use in formal documents;

DETERMINES that the purpose of the Montreux Record is to identify priority sites for positive national and international conservation attention, to guide implementation of the Monitoring Procedure, and to guide allocation of resources available under financial mechanisms;

INSTRUCTS the Convention Bureau to maintain the Montreux Record as part of the Ramsar database and in accordance with the guidelines appended in the annex to the present Resolution; and

CHARGES the Convention’s Scientific and Technical Review Panel, established by Resolution RES. C.5.5, with providing advice on the maintenance of the Montreux Record, and other matters relating to the conservation of Ramsar Sites included in the Montreux Record.

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### Resolution VI.1

*(adopted by the 6<sup>th</sup> meeting of the Conference of the Contracting Parties, Brisbane, Australia, 1996)*

#### **Working definitions of ecological character, guidelines for describing and maintaining the ecological character of listed sites, and guidelines for operation of the Montreux Record**

1. CONSIDERING that Article 3.2 of the Convention states that each Contracting Party “shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List [of Wetlands of International Importance] has changed, is changing, or is likely to change as the result of technological developments, pollution or other human interference”;
2. RECALLING that Recommendation 4.8 instructed the Bureau to maintain a record of listed sites where change in ecological character had occurred, was occurring, or was likely to occur, and that Resolution 5.4 established guidelines for operating the record, to be known as the Montreux Record;
3. FURTHER RECALLING that Recommendation 5.2 emphasized the need for further studies of the concepts of “ecological character” and “change in ecological character”, and instructed the Bureau, with the support of the Scientific and Technical Review Panel (STRP) and partner organizations, to report to the present meeting on the results of such studies;

4. NOTING the results of the work carried out by the STRP and during Technical Session B of the present meeting;
5. RECOGNIZING the need for definitions and guidelines to assist Contracting Parties with implementation of Article 3.2 and, in particular, with maintaining the ecological character of listed sites;
6. FURTHER RECOGNIZING the need for revised guidelines to ensure effective operation of the Montreux Record;
7. NOTING that Resolution VI.13 of the present meeting seeks to address the deficiencies in essential baseline data provided by Contracting Parties in the form of Information Sheets on Ramsar Wetlands; and
8. AWARE of the existence of many successful environmental monitoring programmes world-wide (including those which rely on the involvement and enthusiasm of local communities) and of the value of Early Warning Systems to allow Contracting Parties to take sufficiently prompt actions to prevent changes in the ecological character of listed sites;

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9. ACCEPTS working definitions, to be assessed further during the 1997-1999 triennium, of “ecological character” and “change in ecological character”, together with the guidelines for describing and maintaining ecological character of listed sites, as contained in the Annex to the present resolution, recognizing that these working definitions are relevant to the management of wetlands in general;
10. REQUESTS the Contracting Parties and the Bureau, with the advice of the STRP, to implement the revised procedure for operation of the Montreux Record, as contained in the Annex to the present resolution;
11. CALLS ON Contracting Parties to support the development, by the relevant authorities within their territories, of Early Warning Systems for detecting, and initiating action in response to, change in ecological character; and
12. INSTRUCTS the STRP, in cooperation with the Bureau and partner organizations, and the wider scientific



Training in monitoring change in the ecological character of wetlands: Sergei Dereliev, Wetlands Advisory Training Centre in the Netherlands.

community, to liaise with the Standing Committee, in order to identify the effects of application of the present resolution, especially at specific sites, and to report accordingly to the 7<sup>th</sup> Meeting of the Conference of the Parties.

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## **Resolution VII.24**

*(adopted by the 7th meeting of the Conference of the Contracting Parties, St José, Costa Rica, 1999)*

### **Compensation for lost wetland habitats and other functions**

1. NOTING that the total area of natural wetlands in many countries is still declining;
2. CONCERNED that a further loss of wetland habitats could adversely affect biodiversity and other functions such as water quality, flood control and other benefits on the national or international scale;
3. RECALLING Article 3.1 of the Convention, which urges Contracting Parties to “formulate and implement their planning so as to promote the conservation of the wetlands included in the List and as far as possible the wise use of wetlands in their territory”;
4. ALSO RECALLING the Kushiro Statement (Resolution 5.1) on the *Framework for the implementation of the Ramsar Convention* which includes the commitment of the Contracting Parties to restore degraded wetlands and to compensate for wetland losses;
5. NOTING that effective wetland protection involves the conservation of wetlands as a first choice within a three-step mitigation sequence, including avoidance, minimization, and compensation, the latter only as a last resort;
6. RECALLING Recommendation 6.2 which calls upon Contracting Parties to integrate an environmental impact assessment into planning decisions in order to determine if a proposed plan or project is compatible with the wise use concept as defined in Recommendation 3.3 and in the *Guidelines for the implementation of the wise use concept* (Recommendation 4.10 and Resolution 5.6);
7. NOTING that Member States of the European Union, according to the Habitats Directive (92/43/EEC of May 1992), shall take all compensatory measures to ensure that the overall coherence of Natura 2000 is protected when for imperative reasons of overriding public interest and in the absence of alternatives, a plan or project must be carried out in spite of a negative assessment;
8. NOTING that the United States of America, according to the provisions of its Clean Water Act and a stated policy of no overall net loss of wetland functions and values, shall take all practicable measures to compensate for unavoidable wetland loss; and
9. RECALLING Recommendation 6.15 on restoration of wetlands, which could play a prominent role to compensate for loss of natural wetlands;

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10. URGES the Contracting Parties to take all practicable measures for compensating any loss of wetland functions, attributes and values, both in quality and surface area, caused by human activities;
11. CALLS UPON Contracting Parties to integrate rules for compensation of wetland loss into their national policies on land and water planning;



12. ALSO CALLS UPON Contracting Parties to incorporate a preference for compensating for wetland loss with wetlands of a similar type and in the same local water catchment; and
  13. INVITES the Standing Committee to define, in cooperation with the Scientific and Technical Review Panel and the Ramsar Bureau, and in consultation with the International Organization Partners, criteria and guidelines for the compensation of wetland habitats in the case of unavoidable losses and to submit these for the approval of COP8.
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### **Resolution VIII.8**

*(adopted by the 8th meeting of the Conference of the Contracting Parties, Valencia, Spain, 2002)*

#### **Assessing and reporting the status and trends of wetlands, and the implementation of Article 3.2 of the Convention**

1. RECOGNIZING that assessment of the status and trends of wetlands, and assessing and reporting on their ecological character and change in ecological character, provide an essential basis for improving understanding of the state of, and pressures on, wetland ecosystems at the global, regional and national scales in support of future policy development, decision-making and prioritisation under the Convention, and for management interventions on Ramsar Sites and other wetlands;
  2. RECALLING Article 3.1 of the Convention, whereby Contracting Parties have committed themselves to formulate and implement their planning so as to promote the conservation of wetlands included in the List of Wetlands of International Importance, and as far as possible the wise use of wetlands in their territory;
  3. RECALLING ALSO that the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11) calls for the establishment of an international network of wetland sites built from coherent and comprehensive networks of Ramsar Sites within the territory of each Contracting Party to the Convention, and that Objective 4.1 of the *Strategic Framework* concerns the use of the Ramsar Site network for monitoring the status and trends of wetlands, specifically “to use Ramsar Sites as baseline and reference areas for national, supranational/regional, and international environmental monitoring to detect trends in the loss of biological diversity, climate change, and the processes of desertification”; and CONCERNED that national and international mechanisms for detecting and reporting such trends under the Convention should be improved;
  4. FURTHER RECALLING that under Article 3.2 of the Convention, each Contracting Party has agreed that it will arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference, and to report any such change, without delay, to the Ramsar Bureau;
  5. NOTING that Resolution VI.1 interpreted ‘change in the ecological character of a site’ as meaning adverse change, caused by human activities, and noted that this excludes the process of natural evolutionary change occurring in wetlands;
  6. CONCERNED that, according to available information including the National Reports to COP8, many Contracting Parties do not have in place the mechanisms to comply with Article 3.2, or that these are not being implemented;
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7. FURTHER RECALLING that in Recommendation 4.8 the Contracting Parties instructed the Ramsar Bureau to maintain the “Montreux Record” of listed sites where change in ecological character has occurred, is occurring or is likely to occur; that in Resolution 5.4 they established guidelines for the operation of this Montreux Record and determined that its purpose should be, *inter alia*, to identify priority sites for positive national and international conservation attention; and that in Resolution VI.1 they adopted a revised procedure for its operation;
8. RECOGNIZING that many Ramsar Sites have undergone or are undergoing change in their ecological character, or are likely to undergo such change, by virtue of the land use and other pressures affecting them, and NOTING that since its establishment 76 Ramsar Sites have been included by Contracting Parties on the Montreux Record;
9. RECOGNIZING ALSO that the information fields contained in the Ramsar Information Sheet (RIS), as revised by Resolution VIII.13, used for the designation of Wetlands of International Importance should also form a statement of the ecological character of these wetlands and the factors affecting their character; but ALSO RECOGNIZING that Resolution VIII.7 calls for the Scientific and Technical Review Panel (STRP) to review and prepare further guidance on harmonising statements of ecological character in the RIS for wetland inventory and other purposes;
10. AWARE of the substantial body of tools and guidance already adopted by the Conference of the Parties to assist in the identification, assessment, and maintenance of the ecological character of sites on the List of Wetlands of International Importance and other wetlands, through inventory, assessment, monitoring and management, compiled and published as Ramsar Wise Use Handbooks 7 and 8; and ALSO AWARE that the tools and guidance for application of the *Strategic Framework and guidelines for the future development of the List* (Resolution VII.11) are applicable to all wetlands; and
11. RECOGNIZING that further guidance on these matters has been adopted by this meeting of the Conference of the Parties, notably the *New Guidelines for management planning for Ramsar Sites and other wetlands* (Resolution VIII.14), which includes guidance on the assessment and monitoring of ecological character and the factors that affect it, the *Framework for Wetland Inventory* (Resolution VIII.6), and the *Principles and guidelines for wetland restoration* (Resolution VIII.16);

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12. URGES Contracting Parties, as a matter of high priority, to put in place mechanisms in order to be informed at the earliest possible time, including through reports by national authorities and local and indigenous communities and NGOs, if the ecological character of any wetland in its territory included in the Ramsar List has changed, is changing or is likely to change, and to report any such change without delay to the Ramsar Bureau so as to implement fully Article 3.2 of the Convention, and to report on these matters in the National Reports prepared on the occasion of each meeting of the Conference of the Parties;
13. CONFIRMS that Article 3.2 reports should be made for types and causes of adverse, human-induced change in ecological character in order *inter alia* to provide the basis for analysis of status and trends in Ramsar Sites in line with Objective 4.1 of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11);
14. REAFFIRMS that in accordance with Resolution 5.4 this information will be maintained as part of the Ramsar Sites Database reports by Contracting Parties in fulfillment of Article 3.2, and DIRECTS the Ramsar Bureau, in cooperation with Wetlands International, to prepare and circulate to all Contracting Parties a simple format for this reporting;

15. RECOGNIZES that reporting under Article 3.2 of the Convention does not substitute for the requirement as adopted by Resolution VI.13 for Contracting Parties to provide a fully updated Ramsar Information Sheet for each of their designated Ramsar Sites at intervals of not more than six years, and URGES Contracting Parties to renew their efforts to provide such updated Ramsar Information Sheets in a timely manner;
16. REQUESTS the Scientific and Technical Review Panel (STRP), with the assistance of Wetlands International, the Ramsar Bureau, and other relevant organizations to prepare an analysis and report of the status and trends in the ecological character of sites in the Ramsar List for consideration by COP9 and each subsequent meeting of the Conference of the Parties, and to set, as far as possible, the status and trends of Ramsar Sites within the wider context of the status and trends of marine, coastal and inland wetlands, drawing upon the results of the Millennium Ecosystem Assessment (MA) and other assessment initiatives as appropriate;
17. ALSO REQUESTS the STRP to prepare further consolidated guidance on the overall process of detecting, reporting and responding to change in ecological character, including guidelines for determining when such a change is too trivial to require reporting, having regard to the reasons why a given site is important and to the conservation objectives which have been set for it, and ENCOURAGES Contracting Parties in the meantime to take a precautionary approach;
18. RECOGNIZES that the establishment of a management planning process, in line with the guidance on management planning adopted by this meeting of the COP, on all Ramsar Sites greatly facilitates the identification, reporting and resolution of changes in ecological character, and that inclusion in each management plan of an objective of maintenance of the ecological character of the site provides a basis for implementation of Article 3.1 of the Convention;
19. FURTHER RECOGNIZES that several response options and mechanisms are available to the Contracting Party concerned to address and resolve identified negative changes, or likely changes, in the ecological character of sites on the List, including *inter alia*:
  - a) when resources permit, using an established management planning process, including undertaking an environmental impact assessment, to guide implementation of appropriate management action;
  - b) seeking the advice of the STRP, and its National Focal Points, on appropriate issues to take into account in addressing the matter, through the mechanism of requesting the Bureau to circulate the Article 3.2 pro-forma completed by the Contracting Party concerned to the STRP for comment;
  - c) for developing countries and countries with economies in transition, requesting resources to implement management action through the emergency assistance category of the Ramsar Small Grants Fund or seeking such resources from other relevant sources; and
  - d) listing, if appropriate, on the Montreux Record and requesting a Ramsar Advisory Mission (RAM) in order to bring international expertise to bear in providing advice on appropriate actions;
20. CALLS UPON Contracting Parties to maintain or restore the ecological character of their Ramsar Sites, including utilizing all appropriate mechanisms to address and resolve as soon as practicable the matters for which a site may have been the subject of a report pursuant to Article 3.2; and, once those matters have been resolved, to submit a further report, so that both positive influences at sites and changes in ecological character may be fully reflected

in reporting under Article 3.2 and in the reporting to all meetings of the COP in order to establish a clear picture of the status and trends of the Ramsar Site network at three-year intervals;

21. REAFFIRMS, in accordance with the *Guidelines for the operation of the Montreux Record* (Annex to Resolution VI.1), that the Montreux Record is the principal tool of the Convention for highlighting those sites where an adverse change in ecological character has occurred, is occurring, or is likely to occur and which are therefore in need of priority conservation action, and ACKNOWLEDGES that the voluntary inclusion of a particular site on the Montreux Record is a useful tool available to Contracting Parties in circumstances where:
  - a) demonstrating national commitment to resolve the adverse changes would assist in their resolution;
  - b) highlighting particularly serious cases would be beneficial at national and/or international level;
  - c) positive national and international conservation attention would benefit the site; and/or
  - d) inclusion on the Record would provide guidance in the allocation of resources available under financial mechanisms;
22. ENCOURAGES Contracting Parties, when submitting a report in fulfillment of Article 3.2, to consider whether the site would benefit from listing on the Montreux Record, and to request such listing as appropriate; and
23. REQUESTS Contracting Parties with sites on the Montreux Record to regularly provide the Ramsar Bureau with an update on their progress in taking action to address the issues for which these Ramsar Sites were listed on the Record, including reporting fully on these matters in their National Reports to each meeting of the Conference of the Parties.

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### **Resolution VIII.16**

*(adopted by the 8th meeting of the Conference of the Contracting Parties, Valencia, Spain, 2002)*

#### **Principles and guidelines for wetland restoration**

1. RECALLING Recommendation 4.1 in which the Conference of the Contracting Parties encouraged wetland restoration by all Parties; and FURTHER RECALLING Recommendation 6.15, which requested the Scientific and Technical Review Panel (STRP) to define principles and guidelines for restoration and urged the Contracting Parties to give higher priority to wetland restoration;
2. RECALLING ALSO Resolution VII.17 in which the Parties requested further development of guidelines and tools that could be used to advance wetland restoration;
3. FURTHER RECALLING Resolution VII.20 in which the Contracting Parties resolved to complete comprehensive national wetland inventories of their wetland resources, including, where possible, wetlands with potential for restoration;
4. EXPRESSING GRATITUDE to the Expert Working Group of the STRP for its work in establishing a wetland restoration Website, as part of the Convention's Website, which includes restoration case studies, and for the contribution to this made by the Society of Wetland Scientists and the Greek Biotope/Wetland Centre (EKBY);

5. REITERATING the view expressed in Recommendation 4.1 and further emphasized in Resolution VII.17 that programmes of wetland restoration that are ecologically, economically, and socially feasible and that are coordinated with wetland protection provide substantial benefits for both people and wildlife, even though restoration of wetlands cannot replace lost natural wetlands;
6. WELCOMING the acknowledgement by the World Summit on Sustainable Development (WSSD) in its Plan of Implementation (paragraph 37d) of the potential role of wetland restoration in reducing the risks of floods and droughts in countries that are vulnerable to them;
7. RECOGNIZING the relevance of principles and guidelines for wetland restoration to the provision of compensation under Article 4.2 of the Convention and the guidelines for such provision of compensation adopted by this meeting of the Conference of the Contracting Parties through Resolution VIII.20; and
8. RECOGNIZING ALSO that, through a number of Resolutions, this meeting of the Conference of the Contracting Parties has adopted new guidance for the Contracting Parties on wetland management planning (Resolution VIII.14), a framework for wetland inventory (Resolution VIII.6), impact assessment (Resolution VIII.9), global action for peatlands (Resolution VIII.17), climate change and wetlands (Resolution VII.3), and the maintenance of the ecological character of wetlands (Resolution VIII.8), all of which contribute to the implementation of the restoration of wetlands;

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9. ADOPTS the *Principles and guidelines for wetland restoration* as annexed to this Resolution;
10. CALLS UPON all Contracting Parties to recognize in this regard that the restoration or creation of wetlands cannot replace the loss of natural wetlands;
11. URGES all Contracting Parties to integrate fully the *Principles and guidelines for wetland restoration* into their National Wetland Policies and plans, paying particular attention to issues of legislation, impact assessment, incentive measures, and the mitigation of impacts of climate change and sea-level rise;
12. CALLS UPON Contracting Parties to apply the *Principles and guidelines for wetland restoration* as a further means to address vulnerability to floods and droughts, as outlined in the WSSD Plan of Implementation;
13. CALLS UPON Contracting Parties to utilize these principles and guidelines in undertaking national inventories of wetlands with the potential for restoration, applying the Framework for Wetland Inventory adopted by this Conference (Resolution VIII.6), to develop programmes to implement restoration on sites so identified, and to report their progress on these matters in their triennial National Reports to the COP;
14. URGES Contracting Parties to pay particular attention to the restoration of peatlands, in line with the priority afforded to the wise use of this wetland type through the adoption by this meeting of the *Guidelines for Global Action on Peatlands* (Resolution VIII.17);
15. FURTHER URGES all Contracting Parties to pay particular attention to the role of wetland restoration in management at the catchment and river basin level in relation to the allocation and management of water for maintaining the ecological functions of wetlands (Resolution VIII.1), integrating the conservation and wise use of wetlands into river basin management (Resolution VII.18), and transboundary action (Resolution VII.19);

16. CALLS UPON all Contracting Parties to apply the *Principles and guidelines for wetland restoration* when considering the provision of compensation under Article 4.2 of the Convention and using the guidelines for such provision of compensation adopted by this meeting through Resolution VIII.20);
  17. ENCOURAGES Contracting Parties to investigate opportunities to link poverty relief to wetland restoration, by incorporating the provision of work, skills and opportunities into restoration projects and by focusing on the restoration of ecosystem goods and services upon which communities depend;
  18. ENCOURAGES Contracting Parties to disseminate the attached principles and guidelines to community stakeholders who have an interest in wetland restoration, and to involve local communities and indigenous peoples in restoring and maintaining wetlands, in line with the guidance in Resolution VII.8 concerning establishing and strengthening local communities' and indigenous peoples' participation in the management of wetlands;
  19. CALLS UPON all Contracting Parties, when implementing the *Principles and guidelines for wetland restoration*, to ensure that the cultural and archaeological heritage significance of wetlands being considered for restoration is fully recognized so as to ensure that this significance is maintained, taking into account the *Guiding principles for taking into account the cultural values of wetlands for the effective management of sites*, annexed to Resolution VIII.19;
  20. ENCOURAGES Contracting Parties to utilize the information and resources of Ramsar's restoration Website, which includes illustrated case studies, a guide to restoration terminology, searchable bibliographies, links to Web-based restoration tools, and papers dealing with restoration incentives, socioeconomic aspects of restoration, and restoration site selection, in their implementation of wetland restoration projects, and FURTHER ENCOURAGES Contracting Parties and other bodies with relevant information to contribute information on their wetland restoration projects and experience to the Website, in one of the Convention's official languages, so as to increase the wide availability of such information, and particularly to provide demonstration projects that illustrate the application of the principles and guidelines adopted by this Resolution;
  21. REQUESTS Contracting Parties, as part of their national training needs assessments, to identify their training needs in wetland restoration, and FURTHER REQUESTS the Ramsar Bureau, in collaboration with the STRP, Wetlands International and others, to identify training opportunities and expertise in wetland restoration and to create relevant training modules as part of the Ramsar Wetland Training Initiative, once established; and
  22. REQUESTS the STRP, in cooperation with the Coordinating Committee for Global Action on Peatlands once established (in line with Resolution VIII.17), to further develop tools and guidance on wetland restoration, including a glossary of wetland restoration terminology and guidance on small dams and wetland restoration; and FURTHER REQUESTS the Panel, with the assistance of the Government of Canada and other interested Parties, to prepare guidance on compensation for wetland losses in response to Resolution VII.24, and to report on these matters to COP9.
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### **Resolution VIII.20**

*(adopted by the 8th meeting of the Conference of the Contracting Parties, Valencia, Spain, 2002)*

#### **General guidance for interpreting “urgent national interests” under Article 2.5 of the Convention and considering compensation under Article 4.2**

1. RECALLING that Article 2.5 of the Ramsar Convention states that “any Contracting Party shall have the right . . . because of its urgent national interests, to delete or restrict the boundaries of wetlands already included by it in the List”;
2. RECALLING that Article 4.2 of the Ramsar Convention states that “Where a Contracting Party in its urgent national interest, deletes or restricts the boundaries of a wetland included in the List, it should as far as possible compensate for any loss of wetland resources”;
3. RECOGNIZING that Articles 2.5 and 4.2 of the Ramsar Convention do not supply any guidance as to the interpretation of the term “urgent national interests” or to how compensation should be determined;
4. NOTING that Resolution VII.23 requested the Standing Committee, in cooperation with the Bureau and the Scientific and Technical Review Panel (STRP), to develop for consideration and possible adoption at COP8 guidance for the Contracting Parties in interpreting Articles 2.5 and 4.2; and
5. REAFFIRMING the provision of Article 2.3 of the Convention which states that “the inclusion of a wetland in the List does not prejudice the exclusive sovereign rights of the Contracting Party in whose territory the wetland is situated”;

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6. ADOPTS the Annex to this Resolution entitled *General guidance for interpreting “urgent national interests” under Article 2.5 of the Convention and considering compensation under Article 4.2 of the Convention*; and
7. ENCOURAGES Contracting Parties to take into account this general guidance when invoking their right under Article 2.5 and considering compensation in those cases where the boundaries of sites included in the Ramsar List are restricted or a Ramsar Site is deleted from the List.

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### **Resolution IX.6**

*(adopted by the 9th meeting of the Conference of the Contracting Parties, Kampala, Uganda, 2005)*

#### **Guidance for addressing Ramsar Sites or parts of sites which no longer meet the Criteria for designation**

1. RECALLING that Article 2.5 of the Convention makes provision for site deletions or restrictions and states that “any Contracting Party shall have the right . . . because of its urgent national interests, to delete or restrict the boundaries of wetlands already included by it in the List”, and that Article 4.2 states that “where a Contracting Party in its urgent national interest, deletes or restricts the boundaries of a wetland included in the List, it should as far as possible compensate for any loss of wetland resources, and in particular it should create additional nature reserves for waterfowl and for the protection, either in the same area or elsewhere, of an adequate portion of the original habitat”;

2. ALSO RECALLING that Resolution 5.3 established a review procedure for listed sites which may not qualify under any of the Criteria established by Recommendation 4.2;
3. NOTING that Resolution VIII.20 provides general guidance for interpreting “urgent national interests” under Article 2.5 of the Convention and for considering compensation under Article 4.2;
4. FURTHER RECALLING that Resolution VIII.22 recognized that there are situations other than the urgent national interest provision of Article 2.5 of the Convention text in which Ramsar Site boundaries may warrant further definition, and further that there may be situations where:
  - a) a Ramsar Site never met the Criteria for designation as a Wetland of International Importance;
  - b) part or all of a Ramsar Site unavoidably loses the values, functions and attributes for which it was included, or was included in error; or
  - c) a Ramsar Site at the time of listing met the criteria but, whilst its values, functions and attributes remain unchanged, it later fails to meet the Criteria because of a change in those Criteria or in the population estimates or parameters which underpin them;
5. ALSO NOTING that Resolution VIII.21 provides guidance for defining Ramsar Site boundaries more accurately in the Information Sheet on Ramsar Wetlands (RIS), in order to address situations where boundaries were erroneously or inaccurately defined at the time of listing, and that Resolution VIII.13 provides further guidance for the application and completion of the RIS, including the provision of maps;
6. FURTHER RECALLING that Resolution VIII.22 recognized that no guidance has been provided by the Convention to assist Contracting Parties where a Ramsar Site ceases to fulfill the Criteria for designation as a Wetland of International Importance, with the exception of Resolution 5.3 which includes as its annex a Review Procedure for sites which did not meet the Criteria at the time of listing; and that no guidance has been provided on situations where part of a site either unavoidably loses the values, functions and attributes for which it was included, or was included in error;
7. AWARE that Resolution VIII.22 requested that the Standing Committee, with support from the Ramsar Bureau and International Organization Partners, the Scientific and Technical Review Panel (STRP), appropriate legal and other experts, and interested Contracting Parties, develop for consideration and possible adoption at COP9 guidance for Contracting Parties about:
  - a) identification of scenarios in which a listed Ramsar Site may cease to fulfill the Criteria for designation as a Wetland of International Importance;
  - b) obligations of Contracting Parties under the Convention and the possible application of compensation measures under Article 4.2;
  - c) procedures that could be applied should the deletion or restriction of boundaries need to be contemplated in such situations; and
  - d) their relationship to the issues covered by Resolutions VIII.20 and VIII.21;
8. NOTING that in the Information Paper COP9 DOC. 15, ten scenarios are identified under which a listed Ramsar Site or part(s) of a site may cease to fulfill the Criteria for designation; and



9. REAFFIRMING that it is an overarching principle that a wetland should remain designated as a Ramsar Site, and that the whole of its original extent should remain designated, whenever possible and appropriate;

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10. ADOPTS the guidance in the Annex to this Resolution concerning how to address issues of Ramsar Sites or parts of sites which cease to fulfil or never fulfilled the Criteria for designation;
11. REQUESTS Contracting Parties to apply the guidance and procedures set out in this Annex when contemplating the deletion of a site from the List of Wetlands of International Importance or a restriction to the boundaries of such a site;
12. URGES Contracting Parties to provide developing countries with assistance, including capacity building, in order to help reverse, where possible, the factors leading to consideration of deletion or restriction of a site;
13. INSTRUCES the Ramsar Secretariat to take into account the guidance in the Annex to this Resolution when advising Contracting Parties on issues concerning reduction or deletion of a site from the List of Wetlands of International Importance, including on the provision by Contracting Parties of updated Information Sheets on Ramsar Wetlands; and
14. ALSO INSTRUCES the Ramsar Secretariat, with the advice of the Scientific and Technical Review Panel, to report to COP10 on these matters under Article 8.2 and URGES Contracting Parties to provide to the Ramsar Secretariat information on their experiences and lessons learned in their application of this Resolution.

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**Resolution X.16**

*(adopted by the 10th meeting of the Conference of the Contracting Parties, Changwon, Republic of Korea, 2008)*

**A Framework for processes of detecting, reporting and responding to change in wetland ecological character**

1. AWARE of the suite of technical and scientific guidelines and other materials prepared by the Scientific and Technical Review Panel (STRP) to support Contracting Parties in their implementation of wetland conservation and wise use, including those concerning aspects of addressing change in the ecological character of wetlands compiled in Ramsar Wise Use Handbook 15 (3<sup>rd</sup> edition, 2007);
2. NOTING that the 9<sup>th</sup> Meeting of the Conference of the Contracting Parties (COP9) instructed the STRP to prepare further advice and guidance for consideration by Contracting Parties at COP10, focusing on the immediate and high priority tasks set out in Annex 1 to Resolution IX.2; and
3. THANKING the STRP for its work in preparing the guidance annexed to this Resolution as part of its high priority work during the 2006-2008 triennium, and the background information on this issue provided in COP10 DOC. 26;

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4. WELCOMES the “Framework for processes of detecting, reporting and responding to change in wetland ecological character” provided in the annex to this Resolution, and URGES Contracting Parties to make good use of it as appropriate, adapting it as necessary to suit national conditions and circumstances, within the frameworks of existing regional initiatives and commitments and in the context of sustainable development;
5. RECOGNIZES that whilst some parts of this Framework concern processes specific to designated Ramsar Sites, other aspects of the Framework can be applied equally well to any wetland being managed to maintain its ecological character as a contribution to achieving the wise use of wetlands;
6. URGES Contracting Parties to draw this Framework to the attention of relevant stakeholders with responsibilities for maintaining the ecological character of Ramsar Sites and other wetlands, including wetland site managers, government ministries, departments and agencies, water and basin management agencies, non-governmental organizations, and civil society, and FURTHER URGES Contracting Parties to encourage these stakeholders to take this Framework into account, together with the Ramsar Toolkit of Wise Use Handbooks, in their decision-making and activities that relate to the delivery of the wise use of wetlands through the maintenance of their ecological character;
7. INSTRUCES the Scientific and Technical Review Panel to include in its work plan for the 2009-2012 period the following tasks:
  - i) In the context of Article 3.2 and the guidance in the annex to this Resolution, develop guidance on aspects of applying the framework provided as this annex, including on:
    - a) “limits of acceptable change”, including guidance on defining the range of natural variability of a site;
    - b) determining confidence limits and degree of likelihood in cases of “likely” change in the context of Article 3.2; and
    - c) the application of a precautionary approach in the Ramsar Convention;
  - ii) Develop guidance on mitigation of and compensation for losses of wetland area and wetland values, in the context of Resolution X.16 on *A Framework for processes of detecting, reporting and responding to change in wetland ecological character*, including lessons learned from available information on implementation of “no net loss” policies, the “urgent national interest” test, and other aspects relating to situations in which Article 2.5 and 4.2 and/or Resolution VII.24 are relevant;
  - iii) Prepare proposals for updating and expanding existing Ramsar guidance on restoration and rehabilitation of lost or degraded wetlands, in the context of Resolution X.16 on *A Framework for processes of detecting, reporting and responding to change in wetland ecological character*, including approaches to prioritization and links with other Ramsar tools and guidance, such as those on climate change and on economic values of ecosystem services; and
  - iv) Prepare guidance on how the Management Effectiveness Tracking Tool (METT) developed by WWF, the World Bank and others can be applied by Contracting Parties for regularly assessing detection, reporting and responses to change in wetland ecological character;
8. INSTRUCES the Ramsar Secretariat to disseminate widely the Framework annexed to this Resolution, including through amendment and updating of the Ramsar Wise Use Handbooks.

## The Ramsar Convention 'toolkit' for the conservation and wise use of wetlands, 4<sup>th</sup> ed. (2010)

### Convention pillar 1: Wise Use

Handbook 1	<b>Wise use of wetlands</b> Concepts and approaches for the wise use of wetlands
Handbook 2	<b>National Wetland Policies</b> Developing and implementing National Wetland Policies
Handbook 3	<b>Laws and institutions</b> Reviewing laws and institutions to promote the conservation and wise use of wetlands
Handbook 4	<b>Avian influenza and wetlands</b> Guidance on control of and responses to highly pathogenic avian influenza
Handbook 5	<b>Partnerships</b> Key partnerships for implementation of the Ramsar Convention
Handbook 6	<b>Wetland CEPA</b> The Convention's Programme on communication, education, participation, and public awareness (CEPA) 2009-2015
Handbook 7	<b>Participatory skills</b> Establishing and strengthening local communities' and indigenous people's participation in the management of wetlands
Handbook 8	<b>Water-related guidance</b> An Integrated Framework for the Convention's water-related guidance
Handbook 9	<b>River basin management</b> Integrating wetland conservation and wise use into river basin management
Handbook 10	<b>Water allocation and management</b> Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands
Handbook 11	<b>Managing groundwater</b> Managing groundwater to maintain wetland ecological character
Handbook 12	<b>Coastal management</b> Wetland issues in Integrated Coastal Zone Management
Handbook 13	<b>Inventory, assessment, and monitoring</b> An Integrated Framework for wetland inventory, assessment, and monitoring
Handbook 14	<b>Data and information needs</b> A Framework for Ramsar data and information needs
Handbook 15	<b>Wetland inventory</b> A Ramsar framework for wetland inventory and ecological character description
Handbook 16	<b>Impact assessment</b> Guidelines on biodiversity-inclusive environmental impact assessment and strategic environmental assessment

### Convention pillar 2: Ramsar sites designation and management

Handbook 17	<b>Designating Ramsar Sites</b> Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance
Handbook 18	<b>Managing wetlands</b> Frameworks for managing Ramsar Sites and other wetlands
Handbook 19	<b>Addressing change in wetland ecological character</b>

### Convention pillar 3: International cooperation

Handbook 20	<b>International cooperation</b> Guidelines and other support for international cooperation under the Ramsar Convention on Wetlands
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### Companion document

Handbook 21	<b>The Ramsar Convention Strategic Plan 2009-2015</b> Goals, strategies, and expectations for the Ramsar Convention's implementation for the period 2009 to 2015
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*Ramsar*  
*Handbooks*  
4<sup>th</sup> edition

## Handbook 19

# Addressing change in wetland ecological character

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