

"Wetlands: water, life, and culture"

**8th Meeting of the Conference of the Contracting Parties
to the Convention on Wetlands (Ramsar, Iran, 1971)
Valencia, Spain, 18-26 November 2002**

Resolution VIII.33

Guidance for identifying, sustainably managing, and designating temporary pools as Wetlands of International Importance

1. RECALLING that in Resolution 5.6 Contracting Parties adopted *Additional guidance for the implementation of the wise use concept*, which stressed that at local level “in order to achieve wise use of wetlands, it is necessary to attain a balance that ensures the maintenance of all wetland types through activities that can range from strict protection all the way to active intervention, including restoration”;
2. ALSO RECALLING Recommendation 5.3, which called for the establishment of strict protection measures for Ramsar sites and wetland reserves of small size or particular sensitivity, and Action 5.2.5 of the Convention’s Strategic Plan 1997-2002, which indicated that Contracting Parties should promote the establishment and implementation of protection measures for such wetlands;
3. FURTHER RECALLING that the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11) indicates that smaller wetlands should not be overlooked for designation as Wetlands of International Importance and that such wetlands may be especially important in maintaining habitat or ecological community-level biological diversity;
4. RECOGNIZING that temporary pools, which are small wetlands of all climatic regions, contribute to the maintenance of global biological diversity through the highly specialized plant and animal communities which depend upon them, and that these wetlands have important socio-economic values which include, *inter alia*, storage of water for use by local communities, especially pastoral communities in arid zones; provision of grazing areas to these communities; environmental education, facilitated by the small size of these pools; and scientific research, notably concerning the adaptation of whole biotic communities to unstable environments; and NOTING that they also have cultural values, especially in some dry regions, including karst areas and steppic areas;
5. CONCERNED that temporary pools are often neglected due to their ephemeral character and are disappearing worldwide because of abandonment of traditional life styles and ~~land~~ agricultural use, as well as from unsustainable management practices, including permanent flooding, land-filling for agricultural and urban developments; negative changes to their very specific hydrology, both in surface and groundwater fluxes, as is recognized by the *Guidelines for rendering the use of groundwater compatible with the conservation of wetlands* (Resolution VIII.40); overexploitation of their renewable resources; and other indirect causes;
6. RECALLING that Operational Objective 6.2 of the 1997-2002 Strategic Plan is “To increase the area of wetland designated for the List of Wetlands of International Importance, particularly for wetland types that are under-represented either at global or

national level”, and that the Convention’s Strategic Plan 2003-2008 (Resolution VIII.25) reiterates that designation of wetland types under-represented in the List requires priority attention; and

7. CONCERNED that temporary pools are under-represented in the Ramsar List of Wetlands of International Importance;

THE CONFERENCE OF THE CONTRACTING PARTIES

8. ADOPTS for application by Contracting Parties the *Guidance for identifying, sustainably managing, and designating temporary pools as Wetlands of International Importance*, annexed to this Resolution;
9. CALLS UPON Contracting Parties to secure the wise use of temporary pools within their territory by ensuring, as a high priority, that their management is sustainable, respecting their specific characteristics and addressing root causes of their loss and degradation, taking into consideration this guidance, and including by:
 - i) undertaking, as far as possible, baseline inventory of temporary pools;
 - ii) raising awareness of their presence and their specific values and functions;
 - iii) ensuring the maintenance of their specific hydrological functioning;
 - iv) ensuring that their natural resources are sustainably used and not overexploited;
 - v) recognizing the importance of temporary pools to local communities and indigenous peoples, and committing support for their management and protection; and
 - vi) undertaking regular surveillance of temporary pools so as to identify and avert any threat to their values and functions, always considering the traditional uses and management;
10. ALSO CALLS UPON Contracting Parties to renew their efforts, as a high priority, to work in collaboration with local communities and indigenous peoples to designate examples of temporary pools, where appropriate, for the List of Wetlands of International Importance, taking into consideration the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11, Ramsar Handbook 7) and the present guidance, and to report to COP9 on their progress with the designation for the List of sites including this wetland type; and
11. INSTRUCTS the Ramsar Bureau to incorporate, as appropriate, the Annex to this Resolution into the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance*.

Annex

Guidance for identifying, sustainably managing, and designating temporary pools as Wetlands of International Importance

Introduction

1. Resolution 5.6 adopted *Additional guidance for the implementation of the wise use concept*, stressing that at local level “in order to achieve wise use of wetlands, it is necessary to attain a balance that ensures the maintenance of all wetland types through activities that can range from strict protection all the way to active intervention, including restoration. Wise use activities therefore can be varied in nature, ranging from very little or no resource exploitation, to active resource exploitation as long as it is sustainable. . . . Wetland management should be adapted to specific local circumstances, sensitive to local cultures and respectful of traditional uses.”
2. Recommendation 5.3 called for the establishment of strict protection measures for Ramsar sites and wetland reserves of small size or particular sensitivity. This call was reiterated in Action 5.2.5 of the Convention’s Strategic Plan 1997-2002, adopted by Resolution VI.14 (COP6, Brisbane, 1996), which indicates that Contracting Parties should promote the establishment and implementation of protection measures for such wetlands. Furthermore, it is important to note that approaches called for in Recommendation 5.3 are not the only tools available to promote wetland conservation and that this is also effective when it happens as a result of voluntary actions by informed citizens.
3. Guidance concerning the designation of small wetlands as Wetlands of International Importance is included in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance*, adopted by COP7: “Smaller sites should not be overlooked. In developing a systematic approach to Ramsar site designation, Contracting Parties are encouraged to recognize that potential Ramsar sites are not necessarily the largest wetlands within the territory. Some wetland types either never were or are no longer found as large wetland systems, and these should not be overlooked. They may be especially important in maintaining habitat or ecological community-level biological diversity.”
4. Furthermore, Operational Objective 6.2 of the 1997-2002 Strategic Plan is “To increase the area of wetland designated for the List of Wetlands of International Importance, particularly for wetland types that are under-represented either at global or national level”. The Convention’s Strategic Plan 2003-2008 (Resolution VIII.25) reiterates that designation of wetland types under-represented in the List requires priority attention, with priority wetland types identified as including arid zone wetlands – regions of major occurrence and importance for temporary pools.
5. However, out of the 1180 designated Ramsar sites (as at August 2002), only 70 have been designated with temporary pools as their primary wetland type, although it should be noted that temporary pools also occur as lesser features of significantly more Ramsar sites.

6. This additional guidance provides information to support Contracting Parties in their application of the Convention's wise use concept so as to secure the sustainable use of temporary pools, and their application of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* for the identification and designation of temporary pools as Ramsar sites. The guidance has been prepared in recognition of the fact that temporary ponds are often undervalued as wetlands because of their generally small size and seasonal or ephemeral nature, yet such wetlands can be of critical importance for the maintenance of biodiversity and as sources of water, food and other wetland products for local communities and indigenous peoples and their ways of life, particularly in arid and semi-arid areas and those which are vulnerable to persistent drought.

Identification of temporary pools

7. Temporary pools are usually small (< 10 ha in area) and shallow wetlands which are characterized by an alternation of flooded and dry phases, and whose hydrology is largely autonomous. They occupy depressions, often endorheic¹, which are flooded for a sufficiently long period to allow the development of hydromorphic² soils and wetland-dependent aquatic or amphibious vegetation and fauna communities. However, equally importantly, temporary pools dry out for long enough periods to prevent the development of the more widespread plant and animal communities characteristic of more permanent wetlands.
8. The water supply for temporary ponds usually comes from precipitation, from run-off from their often small and discrete catchment, and/or from the groundwater table. Temporary pools can also be important for groundwater recharge in karstic, arid and semi-arid areas.
9. Pools which are in direct physical contact with permanent, surface wetlands such as lake edges, permanent marshes or large rivers are excluded from this definition.
10. Temporary pools can occur in many different parts of the world, but are particularly well represented in karstic, arid, semi-arid, and mediterranean-type regions.
11. Since temporary pools are defined by their size and their hydrological functioning, whilst the Ramsar Classification System for Wetland Type is based chiefly on vegetation, temporary pools are covered by a number of categories of wetland types in the Classification System:
- a) they can occur as a *Marine/coastal wetland* under category E (Sand, shingle or pebble shores; includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks);
 - b) they can occur as an *Inland wetland*, under categories N (Seasonal/ intermittent/ irregular rivers/streams/creeks), P (Seasonal/intermittent freshwater lakes (over 8 ha); includes floodplain lakes), Ss (Seasonal/intermittent saline/ brackish/alkaline marshes/pools), Ts (Seasonal/ intermittent freshwater marshes /pools on inorganic

¹ Endorheic: a water body which loses water only by evaporation, i.e. no stream or river flows from it.

² Hydromorphic soils: waterlogged soils which develop under conditions of poor drainage in marshes, swamps, seepage areas, or flats.

soils; includes sloughs, potholes, seasonally flooded meadows, sedge marshes), W (Shrub-dominated wetlands; shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils), and Xf (Freshwater, tree-dominated wetlands; includes freshwater swamp forests, seasonally flooded forests, wooded swamps on inorganic soils); and

- c) they can occur as a *Human-made wetland*, in category 2 (Ponds; includes farm ponds, stock ponds, small tanks; (generally below 8 ha).

12. Significant and characteristic features of temporary pools include:

- a) the ephemeral nature of their wet phase, normally with shallow waters, which means that they may not appear as obvious wetlands for most of the time;
- b) their total dependence upon local hydrology, especially with the absence of any link to permanent aquatic habitats;
- c) the uniqueness of their vegetation with, for example, typical communities of aquatic ferns (*Isoetes* species, *Marsilea* species, *Pilularia* species), normally endangered, and other amphibious plants such as *Ranunculus* species and *Calitriche* species;
- d) the uniqueness of their invertebrate communities and a particular abundance of endangered faunal groups such as amphibians and branchiopod crustaceans, often due to the absence of fish as predators;
- e) their particularly good representation in arid, semi-arid and mediterranean-type zones (including occurring as surface features in karst landscapes);
- f) the human-made nature of many temporary pools in different parts of the world, created either as a result of extractive activities or for water retention and storage for use by local communities; and
- g) their provision of nesting places for waterbirds.

Sustainably managing temporary pools

13. There are a number of threats to the sustainable maintenance of temporary pools, the most important of which include:

- a) alteration of the delicate hydrological functioning upon which they depend, including drainage for land conversion and conversely their transformation into more permanent pools, which leads to encroachment by less specialized, more competitive plant and animal species and which may threaten the key biodiversity values of temporary pools through increases in predators or competitors;
- b) the vulnerability of temporary pools and their biological diversity to increasing and persistent drought in arid and semi-arid regions;
- c) unsustainable exploitation of the natural resources of temporary pools, such as over-grazing, excessive harvesting of vegetation for fodder, and over-abstraction of water;

- d) solid waste dumping;
 - e) indirect threats including pollution, excessive water abstraction or diversion in the catchment, and natural changes through filling in from sedimentation and shrub encroachment;
 - f) abandonment of traditional life styles and land uses leading to neglect of the temporary ponds and loss of recognition of their values and functions; and
 - g) lack of recognition of their values and functions.
14. To secure the sustainable management of temporary pools, the following approaches should be applied:
- a) ensuring that temporary pools are included as a wetland type in national wetland inventories;
 - b) ensuring that the specific hydrological functioning upon which temporary pools depend, including their independence from permanent surface waters, is maintained;
 - c) ensuring that natural resources provided by temporary pools, such as water and fodder, are not over-exploited;
 - d) undertaking a regular surveillance of known temporary pools so as to avert any of potential direct or indirect threats which may appear;
 - e) ensuring that the impact of the creation of a new pool is assessed prior to its creation so as to ensure that the broader ecosystem surrounding it will not be negatively affected; and
 - f) raising awareness of the existence of temporary pools and their specific values and functions as wetland ecosystems.

Designation of temporary pools as Ramsar sites: the application of the Ramsar Criteria

15. Ramsar Criteria 1 to 4 of the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* are particularly relevant to the designation of temporary pools as Ramsar sites. However, because of their generally small size, temporary pools seldom regularly support sufficiently large numbers of waterbirds for Criteria 5 and 6 to apply, although their importance for waterbirds in maintaining the biological diversity of the area can be recognized using Criterion 3, and as critical sites for waterbirds during their life cycle, particularly in arid and semi-arid regions, using Criterion 4. Most fish species do not occur in temporary ponds as they cannot generally survive their dry phases, but Criteria 7 and 8 may apply to temporary pools where they support fish species that are capable of survival in mud or in cysts during dry periods.
16. In applying Criterion 1, Contracting Parties should take into account the particular representation of temporary pools in karstic, arid or sub-arid (including Mediterranean-type) zones: this wetland type is particularly representative of these biogeographic regions.

17. In applying Criterion 2 and 4, it should be recognized that the characteristic plant and animal communities of temporary pools are:
 - a) virtually dependent on this wetland type during at least part of, and often for all of, their life cycle; and
 - b) very vulnerable by nature, being totally dependent on the very specific hydrological conditions of the pool: by altering the hydrology to drier or wetter conditions, whole plant and animal communities characteristic of temporary pools can be rapidly lost.
18. A number of species typical of temporary pools, for example aquatic ferns (*Isoetes* spp., *Marsilea* spp., *Pilularia* spp.), are globally or nationally threatened and listed in Protected Species Lists or Red Data Books. National key sites for such species are appropriate for consideration for designation under Criterion 2.
19. Contracting Parties should be aware that the importance of temporary pools is not linked to their size, and that important sites in terms of their contribution to global biodiversity can be only a few hectares or even square meters, in size.
20. Where possible, temporary pools designated as Ramsar sites should include their entire (usually small) catchments, so as to maintain their hydrological integrity.
21. Concerning the application of Criterion 4, it should be noted that temporary pools often occur as clusters or complexes of pools, sometimes involving hundreds of pools. In areas where rainfall is very localized, at any one time different pools may be dry or filled. When filled they may provide habitats for waterbird populations which move around the entire area. Such waterbird populations are thus dependent upon the whole cluster of pools rather than individual pools. Therefore, wherever possible, designation of a Ramsar site should include the whole cluster of temporary pools, noting especially the guidance provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (paragraph 50 in the annex to Resolution VII.11) concerning designating clusters of small sites and especially those in arid or semi-arid zones and of a non-permanent nature.