Coordinated Waterbird Counts - CWAC

Guidelines for the completion of the Site Data Collection Form

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IMPORTANT:

(1) PLEASE READ THROUGH THESE GUIDELINES CAREFULLY BEFORE COMPLETING THE FORM.

(2) SECTIONS MARKED WITH AN ASTERISK (*) ARE THE MINIMUM REQUIREMENT FOR A FORM TO BE COMPLETED.

(3) IF NOT ENOUGH SPACE IS PROVIDED FOR CERTAIN SECTIONS PLEASE USE A SEPARATE PAGE OR PAGES

(4) PLEASE COMPLETE THE FORM AS THOROUGHLY AS POSSIBLE. AS NOT ALL THE INFORMATION MAY BE KNOWN IMMEDIATELY, THE FORM MAY BE RETURNED WHEN THIS INFORMATION HAS BEEN OBTAINED.

The purpose of the Site Description Form (SDF) is to provide important descriptive information about a particular CWAC site. This information is relevant as background to CWAC data, as well as to any efforts to motivate for the protection and conservation of a site.

***Name of site**

The full correct name of the site, as it will appear in reports and publications. Known alternative names should be given in brackets. Please do not invent a new name, even if you consider the official name to be inappropriate – it is important to establish continuity in naming to avoid confusion in the future. If there is no official or known name, fill in “unknown”.

***Province**

Select the appropriate code, NP = Northern Province, MP = Mpumalanga, GP = Gauteng, NW = North West, FS = Free State, KN = KwaZulu-Natal, EC = Eastern Cape, NC = Northern Cape and WC = Western Cape.

***Site code**

The geographical coordinates (longitude and latitude) of the approximate centre of the site, expressed in degrees, minutes and seconds South and degrees, minutes and seconds East. Coordinates should be rounded off to the nearest second. Use a GPS or a 1:50 000 map to obtain the coordinates. (Apart from being used to locate the site accurately, the coordinates are also used as a reference code for each CWAC site, but for this purpose they may be altered slightly to avoid confusion with neighbouring sites, or to maintain continuity with a code used in the past.)

***Nearest town**

The name of the nearest major town to the site. This should preferably be a town within the same province as the site itself, but if this is not appropriate, please give the province name in brackets after the town name.

***1:50 000 map**

Where possible, provide the full name of the 1:50 000 topo-cadastral map (i.e. quarter-degree grid cell) in which the site is located (e.g. 3318CD Cape Town, 2824DB Kimberley). If the site falls within two or more quarter-degree grid cells, provide the names of all the relevant cells.

***Area**

The approximate area of the site, in hectares.

***Brief description of the site**

A description of the general location of the wetland. This should include the site's distance (in a straight line) and compass bearing from the nearest significant town or city, and any other important additional landmarks, e.g. 40 km NE of Knysna on the R339, just after the Rondebos River, on the right hand side of the road.

***Wetland types**

The objective here is to categorize and characterize the site. However, the site may be comprised of just one or of several different wetland habitats or types. You should try to include *all* of the relevant types in your categorization. The steps are as follows: (1) Select the appropriate wetland type(s) from the list. (2) Give each type a rank based on its relative dominance, based on the area it covers, i.e., the type that covers the greatest area is ranked first, the type which covers the next largest area is ranked second, etc. (3) Give an approximate percentage area for each type. When allocating a percentage, think of 100% as the whole area which can be considered part of the wetland. The bigger and more complex the site, the more types you are likely to need to include; you may need as many as six or seven types to adequately describe your site. **NB:** See the appendix to this information sheet for notes on the various wetland types.

Geo-physical features

Briefly describe the principal physical characteristics of the site:

- ❒ climate (Mention only the most significant climatic features, e.g., annual rainfall, average, minimum and maximum temperatures, the distinct seasons of the region, and any other major factors which affect the wetland and its birds.)
- ❒ geology (Mention the distribution and types of rock on the site.)
- ❒ geomorphology (Describe the shape of the surrounding land, e.g. hills, dunes, cliffs, gullies, etc.)
- ❒ soil type and chemistry (Describe the main soil types and, if possible, whether they are acid, neutral or alkaline.)
- ❒ origins (Mention whether the site is natural or artificial, or a combination; also any manmade modifications to the drainage.)

Hydrological features

- ❒ flow and variations in flow (Mention where the inflow and outflow points are, if relevant, and the season(s) of main inflow. Mention flooding events if relevant. Mention cyclical changes in flow – particularly relevant to estuaries, lagoons and large storage dams where inlets and outlets are sometimes open and sometimes closed.)
- ❒ depth, fluctuations and permanence of water (Mention the water depth and how it varies across the site; also whether the site dries out regularly, occasionally, or never, and how much and how rapidly water levels tend to fluctuate.)
- ❒ catchment area (Describe the extent and nature of the area from which the water at the site is derived.)
- ❒ downstream area (Describe the affected areas downstream, especially in the case of wetlands that are important in flood control.)
- ❒ tidal variations (Mention the extent of tidal influence, if the site is marine or estuarine.)
- ❒ hydrological value of the wetland (Describe the role of the wetland in flood control, sediment trapping, prevention of coastal erosion, maintenance of water quality, recharging and discharging groundwater, etc.)

Water quality features

- ❒ water colour (Describe the typical colour of the water.)
- ❒ suspended particles (Mention and, if possible, quantify the prevalence of suspended mud and/or algae.)
- ❒ salinity (How much salt is present in the water; a qualitative assessment and, if possible, a quantitative measurement from both the inlet and outlet points of the wetland.)
- ❒ pH (i.e. acidity, alkalinity, or neutrality of the water, preferably with a pH reading from both the inlet and outlet points of the wetland.)
- ❒ dissolved solids (If possible, a list of dissolved solids and their concentrations, measured professionally.)
- ❒ pollutants (Mention any known pollutants and how often they occur.)

Ecological features

- ❒ main vegetation types (List the dominant plant communities and species, e.g. Typha reedbeds, Phragmites reedbeds, sedge marshes, waterlilies, flooded grasslands, submerged Potomageton waterweed, etc.)
- ❒ zonation (Describe how the wetland is divided into habitat zones, e.g. mudflats, sandbanks, deep water, reedbeds, floating vegetation, submerged vegetation, woody vegetation, etc. A sketch map would be the best means of clarifying these zones.)
- ❒ seasonal variation (Mention how the zonation may change seasonally.)
- ❒ alien plants (Mention plant species that have been introduced - accidentally or on purpose - especially species which are invasive.)
- ❒ adjacent terrestrial plant communities (Briefly characterize the terrestrial vegetation which surrounds the wetland, including both natural plant communities and alien and cultivated plants.)

Species of conservation importance

- ❒ noteworthy flora (Information on any plant species or plant community for which the site is particularly important, e.g., endemic species, threatened species or particularly good examples of native plant communities. Be sure to state *why* each is noteworthy.)
- ❒ noteworthy fauna – other than waterbirds (Notes on noteworthy animals of the wetland, including fish, mammals, reptiles, amphibians, birds other than waterbirds, and invertebrates. Give details of population sizes whenever possible. Particular emphasis should be given to endemic, threatened, and economically important species, and species occurring in globally significant numbers. Be sure to state *why* each is noteworthy. Do *not* include any species which is included in the CWAC counts.)

History

- ❒ nature of change (Describe whatever historical changes to the site you are aware of. Include both natural and man-made changes.)
- ❒ sources of information (List any sources of information on the past conditions of the site.)

***Current land use**

- ❒ main human activities in the CWAC site itself (Give information on the human population in the area, with a description of the principal human activities and main forms of land use at the wetland, e.g., water supply for domestic and industrial use, irrigation, agriculture, livestock grazing, forestry, fishing, aquaculture and hunting. Some indication of the relative importance of each form of land use should be given whenever possible.)
- ❒ main human activities in the surroundings and catchment (Summarize land use in the catchment that might have a direct bearing on the wetland, and land use in any downstream areas likely to be affected by the wetland.)

***Threats/factors adversely affecting the site's ecological character**

A "threat" is anything which actually is, or could, cause the natural ecological functions of the wetland and its constituent habitats to deteriorate, or cause a decline in the populations of any of its wild species,

particularly the rare species. This could include changes in activities, land uses and major development projects at the site, or in the catchment. Select appropriate threats and their severity from the list on the form, and provide details of any threats not listed. When reporting on pollution, special notice should be taken of toxic chemical pollutants and their sources. These could include industrial and agricultural chemical effluents and other emissions.

Threats can also include natural events such as vegetative succession (e.g. reed encroachment), which have had, are having, or are likely to have, an impact on the ecological character of the site. Although these may not always be considered “bad”, they should be documented to facilitate monitoring. List introduced exotic species and give information on why and how they were introduced.

Please distinguish between potential and existing factors, and between factors occurring in the site and those external to, but (possibly) affecting, the site. In all cases where data exist, supply measurable and/or quantifiable information to enable more precise monitoring.

***Conservation measures**

Give details of conservation/management status at or around the wetland, and any other conservation measures taken at the site, such as restrictions on development, management practices beneficial to wildlife, closures of hunting, etc. State whether a management plan exists, if it is officially approved, and whether it has been implemented. If only a part of the wetland is included within a protected area, the area of wetland habitat which is protected should be noted.

***Ownership and management authority**

- ❒ Details of ownership of the wetland and ownership of surrounding areas.
- ❒ Details of the management authority, if different from the owner.
- ❒ Contact details (title, full name, tel, fax, cell, e-mail) of any appropriate person(s).

Current scientific/other research or development projects

Details of any current scientific research and information on any special facilities for research.

Current conservation education and awareness

- ❒ Details of any existing programmes and facilities for conservation education and training.
- ❒ Comments on the educational potential of the wetland.

Current recreation and tourism

- ❒ Details of the present use of the wetland for recreation and tourism, with details of existing or planned facilities.
- ❒ If possible, give the annual number of tourists.
- ❒ Indicate if tourism is seasonal.

Local community involvement

Describe and involvement of local communities and indigenous people in the management of the site.

Bibliographical references

A list of key references relevant to the wetland, including management plans, major scientific reports, and bibliographies. When a large body of published material is available on the site, only the most important references need be cited, with priority being given to recent literature containing extensive bibliographies. Copies of the most important literature should be appended if possible.

***Compiler's details**

Please provide all contact details. For new compilers, the ADU Observer code should be left blank; this will be issued on receipt of a completed Site Description Form or Census Form.

THANK YOU FOR FILLING IN THE FORM – WE APPRECIATE IT

APPENDIX 1

DESCRIPTION OF WETLAND TYPES

Marine/Coastal Wetlands

Permanent *shallow marine waters* in most cases less than six metres deep at low tide; includes sea bays and straits.

Marine *subtidal aquatic beds*; includes kelp beds, sea-grass beds, tropical marine meadows.

Coral reefs.

Rocky marine shores; includes rocky offshore islands, sea cliffs.

Sand, shingle or pebble shores; includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks.

Estuarine waters; permanent open water of estuaries and estuarine systems of deltas.

Intertidal mud, sand or salt flats.

Intertidal marshes; includes *salt marshes*, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.

Intertidal forested wetlands; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.

Coastal brackish/saline lagoons; brackish to saline lagoons with at least one relatively narrow connection to the sea.

Coastal freshwater lagoons; includes freshwater delta lagoons.

Inland Wetlands

Permanent inland deltas.

Permanent rivers/streams/creeks; includes waterfalls.

Seasonal/intermittent/irregular rivers/streams/creeks.

Permanent freshwater lakes (over 8 ha); includes large oxbow lakes.

Seasonal/intermittent freshwater lakes (over 8 ha); includes floodplain lakes.

Permanent saline/brackish/alkaline lakes.

Seasonal/intermittent saline/brackish/alkaline lakes and flats.

Permanent saline/brackish/alkaline marshes/pools.

Seasonal/intermittent saline/brackish/alkaline marshes/pools.

Permanent freshwater marshes/pools; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent
vegetation water-logged for at least most of the growing season.

Seasonal/intermittent freshwater marshes/pools on inorganic soils; includes sloughs, potholes, seasonally flooded
meadows, sedge marshes.

Non-forested peatlands; includes shrub or open bogs, swamps, fens.

Alpine wetlands; includes sponges, alpine meadows, temporary waters from snowmelt.

Shrub-dominated wetlands; shrub swamps, shrub-dominated freshwater marshes, on inorganic soils.

Freshwater, tree-dominated wetlands; includes freshwater swamp forests, seasonally flooded forests, wooded
swamps on inorganic soils.

Endohoreic pans; oval or kidney shaped, < 8 ha

ARTIFICIAL wetlands

Aquaculture ponds (e.g. fish/shrimp)

Ponds; includes farm ponds, stock ponds, small tanks; (generally below 8 ha).

Irrigated land; includes irrigation channels and rice fields.

Seasonally flooded agricultural land (including intensively managed or grazed wet meadow or pasture).

Salt exploitation sites; salt pans, salines, etc.

Water storage areas; reservoirs/barrages/dams/impoundments (generally over 8 ha).

Excavations; gravel/brick/clay pits; borrow pits, mining pools.

Wastewater treatment areas; sewage farms, settling ponds, oxidation basins, etc.

Canals and drainage channels, ditches.