EXECUTIVE SUMMARY

EXTRACTED FROM THE PROJECT COMPLETION REPORT

To the Secretariat of the Partnership for the

East Asian – Australasian Flyway

New tools for development of the Flyway Site Network:

An integrated and updated list of candidate sites and guidance on prioritisation

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Executive Summary

Introduction

1. The Flyway Site Network (FSN) is a foundation of the Partnership for the East Asian – Australasian Flyway (EAAFP). Development of the FSN is described in the first objective of the Partnership and the importance of this action and of sustainable management of FSN sites are stressed in the Partnership Document (EAAFP constitution).

2. At their 6th Meeting, in March 2012, the EAAFP Partners adopted their Implementation Strategy 2012–2016. This included key result areas seeking that, by the 7th Meeting, an initial list of internationally important sites based on existing information be identified and communicated to Partners, and that initial guidance on the prioritisation of these sites for nomination to the FSN be developed and made available to Partners.

3. The present report describes the methods, results and conclusions of a 60 day consultancy project, commissioned by the EAAFP Secretariat in November 2012, to achieve these key result areas. The project consultant was supported and advised by a Reference Group, established and appointed by the Chief Executive, which was broadly representative of EAAFP membership, interests and expertise.

Overall approach

4. Sites must meet one or more of the EAAFP criteria for nomination to the FSN, so the overall approach for the project was to work within the framework of the criteria. Of the six criteria, four address waterbird count data. The criterion most often used by EAAFP, referring to site support of 1% of the size of a population of a migratory waterbird, was the primary basis for identification of candidate FSN sites for this project.

5. Consistent with Criterion a/6 of the FSN, data were collated at the level of waterbird population and only migratory populations were considered. Acting on a Partnership decision at its 6th Meeting, the consultant prepared an updated list of populations (256) and 1% thresholds for the East Asian – Australasian Flyway (the Flyway) for this project, based on the 5th edition of *Waterbird Population Estimates*. Past EAAFP practice was continued in compiling the list but it remains to be reviewed and endorsed by the Partnership.

6. Following the approach generally taken by EAAFP and predecessor initiatives for site networks in the Flyway, the project used the best available data and highest count of a population at a site. Consideration of average values, regular occurrence and weightings for survey coverage is not presently possible at whole-of-flyway scale.

7. Site names and implied boundaries in data sources were mostly accepted without alteration, relying on judgment of the original survey coordinators. Apart from obvious cases for consolidation where the same site had been surveyed by different organisations, minimal rationalisation of data into fewer sites was possible. Overlap exists among a few of the sites included, e.g. 'umbrella' sites and their component sites.

8. Count data were obtained principally from sources in the public domain, notably the Flyway's Anatidae and crane atlases (1999) and shorebird status overview (2008), supplemented by the analysis report of 20 years of the Asian Waterbird Census (2009) and the Red Data Book for Asia (2001). More recent data were secured from published articles, project reports and datasets of researchers and some national agencies, with emphasis on filling gaps in coverage. The project did not have resources to pay custodians for queries of major datasets of waterbird data, nor the time for a prolonged search of sources or for wide consultation.

9. In order to indicate the potential of the site to contribute to conservation, waterbird records up to about 30 years old (1982 onwards) generally were considered, even where changes in site condition or population size had subsequently occurred. Such changes were addressed in the project at a late stage of the prioritisation process. This broad approach to age of data was also dictated by atlas and overview sources accessed, because many of the internationally important sites in those sources were identified from data more than 15 years old. Younger data are not readily available for several countries in the Flyway.

10. The EAAFP Secretariat did not have a system for assembling and analysing data on waterbirds and lacked an integrated consistent list of candidate FSN sites. Therefore, a project-specific data management system was established using Excel spread-sheets.

11. The consultant produced detailed discussion papers addressing the overall approach to data collation and management and proposed methodology and criteria for prioritisation. These were reviewed by the project's Reference Group, leading to some enhancements.

12. Considerable detail on methodology, including rules and procedures followed for data management and for identification and prioritisation of sites, is provided in the report.

Identification of candidate sites

13. The project collated 3080 waterbird records from 21 countries, originating from 540 secondary or primary sources. No data were accessed for Laos. Each record represents a count of a waterbird population, which meets the 1% criterion for inclusion in the FSN (or the 0.25% FSN criterion where verified for some shorebird records) and thereby on its own could be the basis for nomination of the site to the FSN. Fifty sites were each identified as internationally important for 10 or more (up to 60) populations. Records for most of the 109 existing FSN sites were included, to apply latest 1% thresholds and for comparisons. Just over half of the records were for the 15 year period 1999 to 2013.

14. An integrated and updated list of existing and candidate FSN sites was produced and is available in formats arranged by waterbird population, or by country and site. It comprises 1060 sites of which about 950 are candidates for nomination. Thus, only about 10% of sites in the Flyway, which are known to be internationally important for migratory waterbirds, have been nominated to the FSN so far – potentially, the Network could be ten times larger.

15. Within the list, 179 waterbird populations are represented by at least one record; this includes 30 populations regarded by IUCN as threatened. The breakdown of populations by group is: 58 shorebirds; 55 Anatidae; 24 gulls and terns; 20 herons, ibises, spoonbills and storks; 12 cranes; 8 grebes, cormorants and pelicans; and 2 rails. Sixty-six of these populations have not been included in the designated FSN sites to date and therefore provide an opportunity to substantially broaden the scope of the Network.

16. Judgment was applied in assigning some records to the most appropriate population, where more than one population existed in the flyway for a particular species and population had not been specified by the source, e.g. Bean Goose *Anser fabalis* (5 populations); Common Redshank *Tringa totanus* (3 populations).

Prioritisation of candidate sites

17. Three criteria were designed specifically for the project and applied to the waterbird records, to obtain three separate prioritisations of candidate sites for nomination to the FSN. Partners may use the results separately, or combine as they see fit.

18. The first prioritisation criterion (PC1) was derived from the proportion of total size of population which had been recorded at the site, summed across all populations listed for the site in the project dataset, finally expressed as an index. The result for each site may be considered as a measure of the contribution that the site makes to conservation of migratory waterbirds in the flyway. It was necessary to set a ceiling of 100% on a small number of waterbird records where circumstances (e.g. changes to the 1% threshold) had created unworkably high scores.

19. The second criterion (PC2) was the number of populations at 1% (or in some cases 0.25%) level and the third (PC3) was the number of threatened populations (IUCN categories CR, EN or VU), listed for the site in the project dataset. PC1 proved to be the most useful and PC3 the least useful, for clearly separating sites in terms of prioritisation.

20. To remove possible records of vagrants, all 127 records of less than 10 birds were excluded before the three criteria were applied; this eliminated 51 sites and three populations from the prioritisation process. Then sites were sorted and ranked by score, for each criterion, and classes were applied country-by-country, with discretion according to circumstance. Class 1 was the top 10 sites (if the country had a large number of sites, otherwise top 5), Class 2 was the next 10 and in some cases Class 3 was also assigned. Sites already in the FSN were highlighted and sites known to no longer support some or most of the previous waterbird values were marked with text annotations.

21. Tables listing candidate sites, designated and undesignated to the FSN, in the top classes for each country, are provided in three appendixes to the report. Tables of the top site by criterion for each country (Table 6; copied below) and of the top five sites in the Flyway (Table 7) are in the body of the report. Sites now considered unlikely to be supporting high waterbird values, or where the rank may have been unduly influenced by problematic data, were excluded from these tables.

22. Table 6 includes 32 sites of which about half are coastal and half are inland wetlands. For each of 12 countries, one particular site features for two or more of the criteria, giving a clear top priority for future nomination to the FSN.

23. East Dongting Lake Nature Reserve (China) was the top-ranked undesignated site for the Flyway against all three criteria; other high-ranking sites in Tables 6 and 7 included Prek Toal (Cambodia) and Gulf of Martaban (Myanmar). Poyang Lake complex (China; a designated FSN site) was the site in the Flyway with highest index for PC1; South-East Gulf of Carpentaria (Australia; an undesignated site) was the highest-ranked site south of the equator.

Online access to the information

24. At conclusion of the project, it is anticipated that the consultancy products – this completion report, an extracted summary and two spread-sheets of data – will be uploaded to the EAAFP website www.eaaflyway.net . Most of the data was already in the public domain through not previously collated in one place. This upload should facilitate follow-up by Partners to review and use the lists of candidate sites and priority candidates in actively preparing new FSN nominations. Further discussions are needed within EAAFP to identify a workable mechanism for updating the information, including for tracking of progress achieved in expanding the FSN.

Conclusions and recommendations

25. NEW TOOLS As a result of EAAFP's investment in the project, the Partnership has two new tools to support strategic development of the FSN: an integrated and updated list of candidate sites; and guidance on prioritisation of nominations, country- by-country.

26. ROLE OF NOMINATOR These new tools provide guidance to EAAFP Partners on the relative contribution each site could make to maintaining populations of migratory waterbirds in the Flyway – but actual nominations are entirely at the discretion of the relevant Government Partner. The site boundary and data that justify inclusion in the FSN should be closely re-assessed in the process of preparing a nomination.

27. FURTHER DESIGNATIONS Partners are encouraged to use these tools to complete the designation of a significant number of sites to the FSN before the 8th Meeting of

Partners; countries with large numbers of candidate sites could aim for more than one designation. Partners are encouraged to give top priority to consideration of the highest-ranked sites as revealed by the present project and also of under-represented populations for which candidate sites have now been identified.

28. AWARENESS ACTIONS Recognising that only a portion of the 950 undesignated sites are likely to be added to the FSN in the next several years, Partners are also encouraged to use the list of candidates to promote greater awareness of internationally important wetlands, and their wise management, at national and flyway scales.

29. NEXT PHASE OF WORK In view of the resource and time constraints on the project and the inherent limitations of the information base for the project, it is recommended that EAAFP also consider the benefits of securing resources for a second phase of this initiative, for reporting to the 8th Meeting of Partners. This work may include: review and standardisation of site boundaries and names, and site mapping; improvement of problematic estimates for size of population; fresh queries of major datasets held by external custodians; and systematic filtering of data to account for major changes in site condition and long-term changes in use of sites by waterbirds. Alternatively or in conjunction, Partners should decide on possible adaptation of the Critical Site Network Tool for the Flyway in the near future, perhaps by commissioning a feasibility study.

30. ADDITIONAL APPROACHES Although first priority is for action on achieving new FSN designations, the Partners may also consider commissioning complementary approaches for prioritisation of sites in order to deal with populations or issues that could not be adequately addressed in the present project. This refers especially to waterbirds that are non-congregatory or otherwise not well represented in the FSN and bird families listed in the Partnership Document but not yet adequately defined at population level.

31. SUSTAINING THE INFORMATION BASE Of great urgency is the need to secure funds to enable flyway-scale databases on waterbird count data and site information to be adequately developed, managed, analysed and reported and to support ongoing coordination of regular surveys of migratory waterbirds.

Table 6. Top-ranked candidate sites for nomination to the Flyway Site Network, by country, derived from the project's three criteria for prioritisation (Appendixes 7A, 7B and 7C) and consideration of site condition and data quality.

	top-ranked candidate sites (after filters applied: see notes below table)		
country	**as determined by Prioritisation Criterion 1**	**as determined by Prioritisation Criterion 2 (result >2 pops.)**	**as determined by Prioritisation Criterion 3 (result >2 pops.)**
Australia	SE Gulf of Carpentaria	SE Gulf of Carpentaria	no result
Bangladesh	Pashua Haor	Pashua Haor; Maulavir Char	no result
Brunei	Wasan Rice Scheme	no result	no result
Cambodia	Prek Toal	Prek Toal; Ang Trapeang Thmor Rsvr.	no result
China	East Dongting Lake NR	East Dongting Lake NR	East Dongting Lake NR
Indonesia	Pantai Sejara (Asahan regency)	Bagan Percut	no result
Japan	Lakes Izunuma & Uchinuma	Notsuke Bay	Isahaya Higata (Isahaya Bay)
Laos	no data	no data	no data
Malaysia	Pulau Tengah (Klang Islands)	Pulau Tengah (Klang Islands)	no result
Mongolia	Buir Nuur complex	Buir Nuur complex	Uldze (Ulz) River Basin
Myanmar	Gulf of Martaban	Gulf of Martaban	no result
New Zealand	Manukau Harbour	Manukau Harbour + 2 other sites	no result
North Korea	Anpyong Plain	no result	no result
Papua New Guinea	Kikori Delta	Kikori Delta	no result
Philippines	Manila Bay	Manila Bay	no result
Russia	Kolyma Lowlands	Kharchinskoe Lake	Zeya - Bureya Lowland
Singapore	no result	no result	no result

Table 6 cont.	top-ranked candidate sites (after filters applied: see notes below table)		
country	**as determined by Prioritisation Criterion 1**	**as determined by Prioritisation Criterion 2 (result >2 pops.)**	**as determined by Prioritisation Criterion 3 (result >2 pops.)**
South Korea	Ganghwa Island (tidal flats)	Yeongjong (Yong Jong) Island	Ganghwa Island (tidal flats)
Thailand	Inner Gulf of Thailand	Inner Gulf of Thailand	no result
Timor Leste	1 site for this country, named "Timor"	no result	no result
USA	Alaska Peninsula	no result	no result
Vietnam	Tram Chim National Park	Xuan Thuy Ramsar Site	Xuan Thuy Ramsar Site

NOTES:

1. The table does not include existing FSN sites.
2. The table does not include sites that are considered to certainly, or very likely, no longer support key populations or high numbers for which the site met FSN criteria (see comments column, Appendix 7A).
3. New Zealand, PC2: the two other sites are: Kaipara Harbour; and Parengarenga Harbour.
4. No data were accessed for Laos. Future phases of the initiative may find criteria-meeting records for sites in Laos.
5. Only sites with scores of more than 2 were included under PC2 and PC3.
6. The results in Table 6 are specific to the project and do not preclude additional sites being identified for any Flyway country, in the future.
7. Additional notes to this table are in the full report.