ASIA / PACIFIC

MIGRATORY BIRD SANCTUARIES ALONG THE COAST OF YELLOW SEA-BOHAI GULF OF CHINA (PHASE II)

CHINA

Yellow River Delta © IUCN / Tilman Jaeger

WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

MIGRATORY BIRD SANCTUARIES ALONG THE COAST OF YELLOW SEA - BOHAI GULF OF CHINA (PHASE II) (CHINA) – ID N° 1606BIS

IUCN RECOMMENDATION TO WORLD HERITAGE COMMITTEE: To approve the inclusion of 10 new component parts as an extension of the existing property.

Key paragraphs of Operational Guidelines:
Paragraph 77: Nominated property meets World Heritage criteria.
Paragraph 78: Nominated property includes component parts that meet integrity, protection and management requirements (but also component parts that do not.).

Background note: In 2018, China nominated the Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China (Phase I) as a serial property consisting of two component parts. IUCN recommended deferral for this nomination (see document WHC/19/43.COM/INF.8B2), but the World Heritage Committee inscribed the property in 2019 based "on the understanding that the State Party is in agreement with the following requests of the Committee, which should be implemented (…) in order to address fully the requirements of the *Operational Guidelines*" (43 COM 8B.3). These requests included, *inter alia*, that "fourteen additional areas identified in the Phase 1 nomination" would fully take "into account ecosystem and habitat diversity of the coastal system, proposed boundaries, values (including species occurrence, abundance and conservation status), threats, integrity, protection and management"; that "the specific presence of the attributes of Outstanding Universal Value within the boundaries of the Phase 2 nomination and their relationship to the inscribed property, including the presence and size of populations of any endemic and threatened species, and of globally significant migratory bird species" is confirmed; and that "evidence of effective coordination of management of the entire serial property including planning for any increasing tourism demand, including the development of appropriately scaled and low impact tourism in the property" is provided. The present (Phase II) extension nomination contains 11 areas consisting of 29 component parts.

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1. DOCUMENTATION

a) Date nomination received by IUCN: February 2022

b) Additional information officially requested from and provided by the State Party: Following the session of the IUCN World Heritage Panel, a progress report was sent to the State Party on 14 December 2023. This letter advised on the status of the evaluation process and requested supplementary information regarding the selection, integrity and protection and management of the nominated component parts. The supplementary information was provided by the State Party on 21 February 2024.

c) Additional literature consulted: IUCN's 2019 evaluation consulted a wide array of relevant reference material for the ecology, protection and management as well as the comparative values of the nominated property. Further references of the present evaluation included among others: Bai, Q., *et al.* (2015). Identification of coastal wetlands of international importance for waterbirds: A review of China Coastal Waterbird Surveys 2005-2013. *Avian Research*, 6, 10.1186/s40657-015-0021-2; Chan, Y-C., Peng, H-B., Han, Y-X., Chung, S.S-W., Li, J., Zhang, L. & Piersma, T. (2019). Conserving unprotected important coastal habitats in the Yellow Sea: shorebird occurrence, distribution and food resources at Lianyungang. *Global Ecology and Conservation*, 20, e00724. https://doi.org/10.1016/j.gecco.2019.e00724; Chan, Y.-C., Tibbitts, T.L., Lok, T., Hassell, C.J., Peng, H.B., Ma, Z., Zhang, Z., Piersma, T. (2019). Filling knowledge gaps in a threatened shorebird flyway through satellite tracking. *Journal of Applied Ecology* 56, 10, 2305-2315, https://doi.org/10.1111/1365-2664.13474; Choi, C-Y. *et al.* (2019). Where to draw the line? Using movement data to inform protected area design and conserve mobile species, *Biological Conservation*, 234, 64-71, https://doi.org/10.1016/j.biocon.2019.03.025; Harff, J., Zhang, H. 2016. Environmental Processes and the Natural and Anthropogenic Forcing in the Bohai Sea, Eastern Asia: Introduction. *Journal of Coastal Research*, 74, 1, https://doi.org/10.2112/SI74-fmi; Hassell, C., Leung. K., Lei, G., Piersma, T. 2022. Shorebird Northward Migration Through Bohai Bay, China. Global Flyway Network. Shorebird Ecological demographic Research and Conservation Initiative. http://globalflywaynetwork.com.au/bohai-report-2022/; Henriques, M., Catry, T., Belo, J.R., Piersma, T. Pontes, S., Granadeiro, J.P. (2022). Combining Multispectral and Radar Imagery with Machine Learning Techniques to Map Intertidal Habitats for Migratory Shorebirds. Remote Sens, 14, 3260. https://doi.org/10.3390/rs14143260; IUCN (2023). *The 2023 IUCN Situation analysis on ecosystems of the Yellow Sea with particular reference to intertidal and associated coastal habitats.* Bangkok, Thailand: IUCN; Lin, C., Jilan Su, J., Xu, B., Tang, Q. (2001). Long-term variations of temperature and salinity of the Bohai Sea and their influence on its ecosystem. *Progress in Oceanography* 49, 1–4, 7-19, https://doi.org/10.1016/S0079-6611(01)00013-1; MacKinnon, J., Verkuil, Y.I. & Murray, N. (2012). IUCN

situation analysis on East and Southeast Asian intertidal habitats, with particular reference to the Yellow Sea (including the Bohai Sea). Occasional Paper of the IUCN Species Survival Commission No. 47. IUCN, Gland, Switzerland and Cambridge, UK. ii + 70 pp; Piersma, T., Kok, E.M.A., Hassell, C.J., Peng, H.-B., Verkuil, Y.I., Lei, G., Karagicheva, J., Rakhimberdiev, E., Howey, P.W., Tibbitts, T.L., Chan, Y.-C. (2021). When a typical jumper skips: itineraries and staging habitats used by Red Knots (Calidris canutus piersmai) migrating between northwest Australia and the New Siberian Islands. *IBIS,* 163, 4, 1235-1251, https://doi.org/10.1111/ibi.12964; Piersma, T., Lok, T., Chen, Y., Hassell, C.J., Yang, H.-Y., Boyle, A., Slaymaker, M., Chan, Y.-C., Melville, D.S., Zhang, Z.-W. Ma, Z. (2016). Simultaneous declines in summer survival of three shorebird species signals a flyway at risk. *Journal of Applied Ecology,* 53, 2, 479-490 (Special Feature: Demography Beyond the Population), https://doi.org/10.1111/1365-2664.12582; Tong, M. *et al.* (2022). Gaps in coastal wetlands World Heritage list. *Science,* 376,1060-1061, DOI:10.1126/science.abq5816; UNEP (2005). Teng, S.K., Yu, H., Tang, Y., Tong, L., Choi, C.I., Kang, D., Liu, H., Chun, Y., Juliano, R.O., Rautalahti-Miettinen, E. & Daler, D. Yellow Sea, *GIWA Regional assessment 34*. University of Kalmar, Kalmar, Sweden; Yang, Z., Li, J., Han, Y., Hassell, C.J., Leung, K-S.K., Melville, D.S., Yu, Y., Zhang, L. & Choi, C-Y. (2021) Coastal wetlands in Lianyungang, Jiangsu Province, China: probably the most important site globally for the Asian Dowitcher (Limnodromus semipalmatus). *Avian Research*, 12, 38. https://doi.org/10.1186/s40657-021-00272-7;

d) Consultations: 9 desk reviews received, in addition to the 11 desk reviews from IUCN's 2019 evaluation. The mission was able to meet with representatives from all levels of government involved, including the National Forestry and Grassland Administration (NFGA) and Academia, including members of the Chinese Academy of Sciences, NGOs from local to international level, as well as community representatives. Additional consultations were held with international experts and IUCN members.

e) Field Visit: Amran Hamzah and Tilman Jaeger, 5 to 15 May 2023

f) Date of IUCN approval of this report: May 2024

2. SUMMARY OF NATURAL VALUES

The present nomination of the Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China (Phase II) is proposed as an extension to the existing serial property, which currently consists of two component parts: the Migratory Bird Habitat in the South of Yancheng, Jiangsu and the Migratory Bird Habitat in the North of Yancheng, Jiangsu totalling 188,643 ha. The serial extension would add 29 component parts in 11 areas, totalling 293,384.7 ha with buffer zones totalling 127,128.28 ha. The existing property and the nominated component parts of the extension are situated in the Yellow Sea, which is a semi-enclosed sea connected to the Bohai Sea and to the East China Sea through a permanent circulation system.

IUCN previously noted that the Yellow Sea and the Bohai Gulf boast enormous tidal mudflats due to the combination of shallow water depth, gentle slopes, wide tidal range, marine currents, and large river systems permanently discharging vast amounts of sediments (Yellow River, Yangtze River, Yalu River, Liao River, Luan River, Hai River among others). The intertidal mudflat system exceeds the scale of the Wadden Sea. For further details on the natural values and characteristics of the Yellow Sea, please see the 2019 IUCN evaluation (see document WHC/19/43.COM/INF.8B2). The existing property does not include any component parts located in the Bohai Gulf, but the present extension nomination contains several component parts (see ID 1606bis-004 to ID 1606bis-011 in table 1) that are located therein, and thus the context of Bohai Gulf is important to understand, in addition to the Phase I nomination.

The Bohai Gulf forms the innermost gulf of the Yellow Sea. It is markedly distinct from the Yellow Sea and therefore often considered to constitute a separate marine region (see e.g. the 2005 Global International Waters Assessment (GIWA) by UNEP). Relative to the Yellow Sea, winters are colder and drier in the Gulf of Bohai, which is influenced by Siberia. Despite major modification and degradation, the river deltas continue to be critically important for bird migration and as a spawning and nursery ground for many fish species. There are three major rivers and watersheds – the Yellow River (Huang He), Liao and the Hai (Hai He) – and three major bays – Liaodong, Bohai and Laizhou. The Yellow River has been discharging into the Bohai Gulf only since 1855 following natural changes of the river course, which created the modern delta encompassing some 550,000 ha. The relatively small Bohai Gulf boasts a disproportionately large share of the overall mudflat system of the wider region. The tidal mudflat area of the Bohai Gulf is almost twice the size of the tidal mudflats of the Yellow Sea in China, and exceeds the entire extent of the mudflat systems in the Democratic People's Republic of Korea and in the Republic of Korea, respectively.

The nominated component parts are of a wide range of sizes (see table 1) and, as initially proposed in the present extension nomination, comprised a total area of 104,741.7 ha with buffer zones totalling 47,072.28 ha. Combined with the existing component parts, this would extend the area of the property to 293,384.70 ha with buffer zones of 127,128.28 ha. In response to the IUCN progress report of 14 December 2023, the State Party revised the boundaries of five nominated component parts in supplementary information submitted on 21 February 2024. The nominated component parts, as revised, now comprise an area of 139,851.85 ha with buffer zones totalling 48,935.98 ha. Combined with the existing component parts, this would extend the area of the property to 328,494.85 ha with buffer zones of 128,991.98 ha.

ID No	Name of the area	Region	District	Nominated Property (ha)	Buffer zone (ha)
1606-001	*Migratory Bird Habitat in the South of Yancheng, Jiangsu*	*Jiangsu Province*	*Dafeng*	*144,839*	*28,271*
1606-002	*Migratory Bird Habitat in the North of Yancheng, Jiangsu*	*Jiangsu Province*	*Tinghu and Dafeng*	*43,804*	*51,785*
1606bis-003	Migratory Bird Habitat at Chongming Dongtan, Shanghai	Shanghai Municipality	Chongming	7,504.71	11,271.32
1606bis-004	Old Course of Yellow River Estuary	Shandong Province	Hekou	(8,462.14) 14,472.25	(3,698.00) 4,539.62
1606bis-005	North Part of the Yellow River Estuary	Shandong Province	Kenli	(4,358.71) 8,524.79	(2,414.76) 2,427.72
1606bis-006	South Part of the Yellow River Estuary	Shandong Province	Kenli	5,214.62	1,977.12
1606bis-007	Dawenliu	Shandong Province	Kenli	(24,291.79) 44,091.60	(5,645.14) 6,740.28
1606bis-008	Migratory Bird Habitat at Nandagang wetland, Cangzou, Hebei Province	Hebei Province	Nandagang Industrial Park	2,922.92	891.22
1606bis-009	Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province	Hebei Province	Luannan County	3,958.30	1,223.51
1606bis-010	Migratory Bird Habitat at Qilihai Lagoon, Qinhuangdao, Hebei Province	Hebei Province	Beidaihe New District	1,050.26	471.12
1606bis-011	Migratory Bird Habitat at Dachaoping of Beidaihe, Qinhuangdao, Hebei Province	Hebei Province	Beidaihe District	97.53	11.11
1606bis-012	Migratory Bird Habitat at Shihenandao of Laolongtou, Qinhuangdao, Hebei Province	Hebei Province	Shanhaiguan	128.25	39.96
1606bis-013	West Part of Liao River Estuary	Liaoning Province	Panshan County	(14,142.24) 22,189.41	(5,084.32) 6,655.35
1606bis-014	East Part of Liao River Estuary	Liaoning Province	Dawa	(14,057.19) 11,144.17	(3,834.36) 2,177.31
1606bis-015	Jiutou Hill	Liaoning Province	Lushunkou	768.20	500.91
1606bis-016	Snake Island	Liaoning Province	Lushunkou	323.95	316.29
1606bis-017	Dayang River	Liaoning Province	Donggang City, Dandong City	8,578.14	4,886.27
1606bis-018	Erdaogou	Liaoning Province	Donggang City, Dandong City	8,666.76	3,895.35
1606bis-019	Fantuozi Islet of Guanglu Island	Liaoning Province	Changhai County, Dalian City	12.13	369.00
1606bis-020	Ertuozi Islet of Gexian Island	Liaoning Province	Changhai County, Dalian City	6.06	17.04
1606bis-021	Dacaotuozi of Guapi Island	Liaoning Province	Changhai County, Dalian City	16.65	159.37
1606bis-022	Xiaocaotuozi of Guapi Island	Liaoning Province	Changhai County, Dalian City	8.42	
1606bis-023	Nandajiao of Guapi Island	Liaoning Province	Changhai County, Dalian City	0.94	
1606bis-024	Wuhushi of Haxian Island	Liaoning Province	Changhai County, Dalian City	8.01	3.99
1606bis-025	Wushi of Dahaozi Island	Liaoning Province	Changhai County, Dalian City	1.45	137.24
1606bis-026	Dabanshi of Dahaozi Island	Liaoning Province	Changhai County, Dalian City	0.15	
1606bis-027	Xicaotuozi of Dachangshan Island	Liaoning Province	Changhai County, Dalian City	129.49	77.54
1606bis-028	Beituozi Islet of Dachangshan Island	Liaoning Province	Changhai County, Dalian City	11.37	10.18
1606bis-029	Bashao Island Lithoherm Belt	Liaoning Province	Changhai County, Dalian City	21.32	137.16
			(TOTAL as initially nominated): **TOTAL as revised:**	(293,384.70) **328,494.85**	(127,128.28) **128,991.98**

Table 1: Component parts that are proposed as Phase II extending the Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China (Phase I), with existing component parts inscribed in Phase I shown in *italics*. The areas of the nominated component parts have been updated based on the supplementary information submitted by the State Party. The areas as initially nominated are shown in brackets. Sources: Adapted from the nomination dossier and supplementary information submitted by the State Party.

In the nomination dossier, the State Party notes that the existing serial property (Phase I) and the proposed extension (Phase II) provide essential habitat for 45 threatened bird species. The inscribed and proposed component parts are presented as key areas during various stages of their migrations and as important hubs on the East Asian-Australasian Flyway (EAAF). IUCN undertook a situation analysis of the Yellow Sea in 2023, which notes that the intertidal wetlands and mudflats are one of the ecological wonders of the world, but also facing considerable degradation with significant development pressure. A human population of 600 million lives in the catchment area of the Yellow Sea

3. COMPARISONS WITH OTHER AREAS

IUCN recalls its 2019 evaluation (see document WHC/19/43.COM/INF.8B2) which concluded that the biodiversity that characterises the Yellow Sea region is of global significance in regard to criterion (x): The globally significant values of the intertidal mudflats, marshes and shallow waters of the overall Yellow Sea, and the Bohai Gulf, are well established through the body of scientific literature which exists for this part of the EAAF. The flyway is a Global 200 ecoregion, it is the largest flyway, with the most bird species, and the most threatened flyway in the world, linking bird populations in at least 21 countries. It is also the largest intertidal mudflat system in the world. The Yellow Sea and the Gulf of Bohai are a bottleneck for many millions of migratory waterbirds – more than 10% of the total migration – along the EAAF, providing essential stopover, feeding/refuelling, moulting, wintering, and breeding sites, including for a number of bird species for which the entire global population depends on this region. Therefore, these ecosystems and habitats are critical to the viability of one of the planet's most important bird migratory pathways.

As an extension of an existing property, seeking coherence with the Committee's recommendation to realize a finite serial property, IUCN further recalls that the Committee inscribed the existing property on the understanding that the State Party submits "a single Phase II nomination that includes all the additional components of the proposed serial listing as a whole, in order to reflect the full range of natural wealth and diversity of the ecoregion and to meet integrity requirements" (Committee Decision 43 COM 8B.3). Therefore, IUCN considers that further comparisons with other areas on a global basis are no longer a focus of the evaluation as the basis for recognition of the World Heritage List has been accepted, and the background discussion is already addressed in IUCN's 2019 evaluation (see document WHC/19/43.COM/INF.8B2). Nevertheless, IUCN welcomes that the nomination contains a useful comparative analysis in relation to the focus on migratory birds under criterion (x). In external desk reviews it was noted that some of the nominated component parts may exceed existing World Heritage properties in terms of their importance to congregations of migratory birds with no equivalent coastal sites in other parts of the flyway that hold such important congregations of migratory species. There is a brief reference to the Ongchong Coast in Democratic People's Republic of Korea. The 2021 inscription decision of the Getbol, Korean Tidal Flats World Heritage property (Republic of Korea) under criterion (x) deserves to be considered.

According to the nomination dossier, 562 bird species use the nominated component parts of the present Phase II extension nomination, compared to 415 bird species recorded in the existing component parts of the Phase I nomination. The nominated component parts all host numerous bird species assessed as threatened in the IUCN Red List of Threatened Species. However, the nominated component parts in Changhai County, Dalian City (see ID 1606bis-019 to 1606bis-029 in table 1) are different from the other 16 nominated component parts in that they host only six threatened bird species, which are all represented through the other component parts. Nevertheless, the counts of individuals of four species recorded in the area overlapping with the nominated component parts ID 1606bis-019 to 1606bis-029 are remarkable and the maximum number recorded across the nominated property, though several other nominated areas host significantly more species meeting the 1% population criterion of the Ramsar Convention. For instance, the Yellow River Estuary (represented in the present nomination through the nominated component parts of *Old Course of Yellow River Estuary; North Part of the Yellow River Estuary; South Part of the Yellow River Estuary; Dawenliu*), on its own, supports at least 1% of the flyway level populations of more than 50 species of waterbirds. This is unmatched by any other wetland in the Yellow Sea region, or adjacent coastal areas of Japan, Russian Federation and the Korean Peninsula, and demonstrates the exceptionally high level of irreplaceability of this site. Similarly, the estuaries of the Liaohe and Yalujiang rivers support at least 31 species that have populations exceeding 1% of the flyway level population estimates.

At least 45 species present in the nominated component parts of Phase II are threatened according to the IUCN Red List of Threatened Species. Five of these species are Critically Endangered, whilst 12 are assessed as Endangered and 28 as Vulnerable. Whilst the Spoon-billed Sandpiper (*Calidris pygmaea,* CR), Spotted Greenshank (*Tringa guttifer*, EN), and Red-crowned Crane (*Grus japonensis*, VU) are already represented through Phase I, the Phase II nominated component parts also support many other threatened species, such as waders (Siberian Crane, *Leucogeranus leucogeranus,* CR, Far Eastern Curlew, *Numenius madagascariensis,* EN, Hooded Crane, *Grus monacha,* Chinese Egret, *Egretta eulophotes,* VU), waterfowl (Baer's Pochard, *Aythya baeri,* CR, Scaly-sided Merganser, *Mergus squamatus,* EN, Swan Goose, *Anser cygnoid*, EN), gulls (Relict Gull, *Larus relictus*, VU), and raptors (Steppe Eagle, *Aquila nipalensis*, EN, Saker Falcon, *Falco cherrug,* EN,

Snowy Owl, *Bubo scandiacus,* VU). The nomination also notes there are 26 species of mammals, nine species of amphibians, 14 species of reptiles, 216 species of fish, as well as 165 species of zoobenthos. Importantly, the nominated component parts of Phase II also encompass parts of major estuaries, including the Yellow, Yangtze and Yalu rivers, various types of coastal wetlands and (mostly portions of) small islands.

In conclusion, IUCN considers that the Phase II extension nomination does include many areas that are important for the EEAF and that hold the potential to improve the integrity of the existing Phase I property. However, an important number of mostly smaller nominated component parts do not meet integrity requirements and important sites are missing from the proposed series (see section 4).

4. INTEGRITY, PROTECTION AND MANAGEMENT

4.1. Protection

All nominated component parts and buffer zones are state-owned and protected as National Nature Reserves, Provincial Nature Reserves, Provincial Wetland Park, Scenic Area, National Wetland Park or National Marine Park. Four nominated component parts are designated as Ramsar sites, one is included in a UNESCO Biosphere Reserve. IUCN notes that all nominated component parts are within protected areas with, in principle, legally adequate protection. In desk reviews, it was noted that the new Ecological Red Line policy (see also p. 7) enhances the legal protection of several of the nominated component parts. Through the policy, legal protection can be granted to areas that are covered by the Red Line, but are not necessarily part of a protected area. The nomination dossier also details institutional processes and frameworks that ensure rigorous monitoring. The State Party has implemented additional conservation measures for wetlands aimed at enhancing the protection of coastal wetlands and regulating land reclamation from the sea, including the Notice of the State Council on Strengthening the Protection of Coastal Wetlands and Strictly Controlling Land Reclamation from Sea (G.F. [2018] No.24), the Notice of the General Office of the State Council on Issuing the Scheme of Wetland Protection and Restoration System (G.B.F. [2016]No.89), and the Guiding Opinions on Establishing a Nature Reserve System with National Parks as the Main Component. Through the Wetland Protection Law, the State Party has completely banned reclamation projects and actively pursued the restoration of tidal flat ecosystems in damaged areas, reflecting a very significant policy shift.

In most cases, consumptive natural resource use and development is prohibited within the property. Supplementary information confirms that wind farms and land reclamation in intertidal zones are strictly prohibited in all nominated component parts. Administratively, the coast is shared by the provinces of Shandong, Liaoding, Liaoning, Hebei and the municipality of Tianjin. Besides the many jurisdictions involved and the wide range of different protected area designations, complexity is reinforced by the fact that protected area boundaries are currently subject to a systematic review of the State Party's entire protected area system. Moreover, the creation of two national parks (Yellow River Delta and Liao River Delta National Parks) is relevant to the nominated component parts of *Old Course of Yellow River Estuary, North Part of the Yellow River Estuary, South Part of the Yellow River Estuary, Dawenliu, West Part of Liao River Estuary* and *East Part of Liao River Estuary.* As a result, the boundaries of the selected component parts and their buffer zones are in many cases not aligned with the zonation of the protected areas as designated at national, provincial, or municipal level.

Regarding the review and revision of protected area boundaries currently underway, it was noted that there has been an implementation gap in the past resulting in infrastructure and development within protected areas incompatible with their legal status. The existence of such infrastructure and development within the boundaries of protected areas is a main reason for revising the boundaries. Following current revisions, the protected areas are expected to become smaller in many cases while aiming at more effectively protecting the most important areas for conservation and restoration. The prospect of an added layer of World Heritage protection would strengthen the focus on conservation for the areas under consideration. The inclusion of the Tiaozini area in Phase I (see 2019 IUCN evaluation: WHC/19/43.COM/INF.8B2) is a case in point for the effective role of World Heritage in achieving conservation.

However, in supplementary information, the State Party notes that there are still oil and gas exploration and exploitation permissions in place in a few nominated component parts for historical reasons. Authorized permissions exist in the nominated component parts of the *Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province; West Part of Liao River Estuary* and *East Part of Liao River Estuary*. In line with the established position of the World Heritage Committee, i.e. that mineral exploration or exploitation is incompatible with World Heritage status, IUCN considers that these nominated component parts cannot be retained in the proposed series, unless the permissions are unequivocally revoked and any existing exploitation sites fully remediated.

In conclusion, IUCN considers that the nominated property meets protection requirements in principle, but notes that alignment between the proposed boundaries and the zonation of the respective protected areas should be enhanced following the completion of the systematic review of the State Party's entire protected area system – in case of inscription potentially through a minor boundary modification. It is currently not possible to include the nominated component parts of the *Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province; West Part of Liao River Estuary* and *East Part of Liao River Estuary* in the proposed series as oil

exploration and exploitation is not compatible with World Heritage status.

IUCN considers that the protection status of the nominated property meets the requirements of the *Operational Guidelines*, with the exception of the nominated component parts of the *Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province; West Part of Liao River Estuary* and *East Part of Liao River Estuary.*

4.2 Boundaries

Counting a total of 29 proposed component parts of highly varied sizes, the present nomination is very complex. This section therefore discusses the boundaries of the serial nominated property in three parts: Firstly, the selection of component parts and any potentially missing component parts; secondly, the boundaries of the 24 component parts as nominated; and thirdly, the boundaries of five component parts as revised in supplementary information.

1. Selection of nominated component parts

First, in terms of the selection of nominated component parts, IUCN recalls that, initially, the State Party proposed three nomination phases for the series, encompassing 16 component parts, two of which were included in the nomination of Phase I. Ten components were listed as the envisaged Phase II at the time of nominating Phase I. Phase III was presented in the initial dossier as a conclusion of the phased approach according to pending priority-setting, achievement of adequate protection and local approval. In line with IUCN's 2019 evaluation report (see document WHC/19/43.COM/INF.8B2), the Committee requested a single and conclusive Phase II, hence the present extension nomination.

However, IUCN notes that Phase II does not appear to represent an adequate conclusion of the series, a view that is also noted in external desk reviews. Comparing the present Phase II nomination with well-established priority sites and the component parts committed by the State Party in supplementary information of the Phase I nomination, i.e. the stated understanding on which the World Heritage Committee agreed to the inscription of Phase I, IUCN notes that several committed component parts have been removed from the series: Liaoning Dalian Lvshunkou National Scenic Area; Hebei Tangshan Caofeidian Wetland; Jiangsu Rudong Coastal Wetland; and Jiangsu Qidong Yangtze River Estuary North Branch Provincial Nature Reserve. Many of these sites have already been noted as priorities in the 2012 IUCN Situation Analysis and all of these sites are highlighted in the updated 2023 IUCN Situation Analysis as priority sites.

In supplementary information to the 2023 nomination, the State Party considers that these potential component parts either do not meet selection criteria or that they exhibit a poor integrity. According to the State Party, Liaoning Dalian Lvshunkou National Scenic Area was not included as the species using this site are represented through nominated component parts that are more important. The Jiangsu Qidong Yangtze River Estuary North Branch Provincial Nature Reserve has been removed due to ports, shipbuilding facilities and channels for maritime traffic whilst the nominated component part of the *Migratory Bird Habitat at Chongming Dongtan*, Shanghai serves as substitute. Caofeidian (Hebei) has been excluded and is represented by the nearby *Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province* as the birds and wetlands of Caofeidian could be seriously threatened due to existing oil exploitation within the area. IUCN therefore concurs with the State Party that Caofeidian cannot be included in the series in line with the established position of the World Heritage Committee that mineral exploration or exploitation is incompatible with World Heritage status. In conclusion, IUCN considers that the exclusion of Liaoning Dalian Lvshunkou National Scenic Area; Hebei Tangshan Caofeidian Wetland and Jiangsu Qidong Yangtze River Estuary North Branch Provincial Nature Reserve is acceptable as the values of these areas have been adequately substituted by other nominated component parts; thus, Committee decision 43 COM 8B.3 can be considered to be met for these component parts.

Regarding the exclusion of Rudong Coast, the State Party considered in 2023 supplementary information that this potential component part has been excluded due to threats from wind farms and aquaculture and a change in bird presence. However, the area is consistently noted as a priority, including in scientific literature annexed to the nomination dossier. It was firstly noted on the State Party's Tentative List as Rudong-Tiezuisha Coast, Jiangsu, whilst the Phase I nomination dossier listed Jiangsu Rudong Coastal Wetland as representative site on the Rudong Coast and as one of the component parts committed for Phase II. The area stands out as it hosts more than half of the world's population of Spotted Greenshank (*Tringa guttifer*, EN) and Spoon-billed Sandpiper (*Calidris pygmaea*, CR) which stopover and moult at the site. Moreover, in 2019 the State Party noted the Jiangsu Rudong Coastal Wetland as important stopover site for Great Knot (*Calidris tenuirostris*, EN) and Bar-tailed Godwit (*Limosa lapponica*, NT) and as important breeding ground for terns, including the Chinese Crested-Tern (*Thalasseus bernsteini*, CR), with a population of just around 100 individuals. Eight species exceeded the 1% criterion whilst there is literature suggesting 17 species exceeding the threshold. IUCN recommends re-considering Rudong Coast in completing the nomination in light of its location on the flyway and its importance. Without at least an appropriate substitute fulfilling the same function on the flyway Committee decision 43 COM 8B.3 cannot be considered to be met in this respect.

In addition, IUCN notes that Lianyungang Salt Works is consistently noted as a priority site, but has not been considered in Phase I nor in Phase II. Lianyungang was noted on the State Party's Tentative List as a feeding site for migratory waders and as a key migration channel for marine life. Whilst Lianyungang is not mentioned as a possible future component part

in the Phase I dossier, a major review article in one of the world's leading scientific journals states that the site ranks among the top-five across all of China for important waterbird populations and total waterbird abundance. Similarly, the 2023 IUCN Situation Analysis notes the site as the "third most important area on the Chinese coast in terms of the number of waterbird species occurring in internationally important numbers", supporting 1% or more of the EAAF populations of 30 species of waterbird, including several Endangered, Vulnerable and Near-Threatened species. The site is suggested as the most important site globally for the Near-Threatened Asian Dowitcher (*Limnodromus semipalmatus*) as it supports such a high proportion of the Asian Dowitcher's population that loss of this single site could threaten the entire global population with extinction, according to desk reviewers. It is the most important site in the world for this species as more than 90% of the world population stages in the Lianyungang area benefitting from the soft intertidal sediments with high densities of large polychaete worms serving as a vital food resource for the Asian Dowitchers. Scientific literature annexed to the nomination suggests that the site supports 25 % of the total flyway population and the largest known wintering congregation in China of the Eurasian Oystercatcher (*Haematopus ostralegus*, NT) and indicates that 26 species meet the 1% criterion. Furthermore, Lianyungang plays a critical role on the Flyway as the only potential site on the long distance between the existing component part of the *Migratory Bird Habitat in the North of Yancheng, Jiangsu* and the nominated component parts at the Yellow River estuary (*Old Course of Yellow River Estuary; North Part of the Yellow River Estuary; South Part of the Yellow River Estuary; Dawenliu*). Whilst IUCN acknowledges the explanation for non-inclusion provided by the State Party in supplementary information (interventions due to the salt works; lack of support from local communities; 2023 surveys suggesting the site is not a key area for wintering waterbirds in Jiangsu), IUCN strongly recommends reconsidering the possibility of enhancing the property's integrity through the potential nomination of Lianyungang following the completion of the review of protected areas and combined with restoration efforts as well as open community consultations so as to ensure that the EEAF will not lose this vital flyway site completely.

In summary, IUCN notes that there are three potential component parts (Rudong-Tiezuisha Coast, Jiangsu; Jiangsu Rudong Coastal Wetland; Lianyungang Salt Works) that are not included in the present nomination but appear to be important for a complete representation of the nominated property's proposed OUV. One of these sites was already noted in the Phase I nomination dossier as a future component. Rudong and Lianyungang are particularly significant, and consistently suggested in scientific literature and in external desk reviews as critically important priority areas, both emerging as disproportionately valuable and sensitive ones for species survival in the EAAF. Therefore, IUCN considers that the present Phase II extension is insufficient to complete the nomination as previously expected, and thus encourages the submission of a further and final extension to complete the series, and ensure full conformity with the expectations set out by the World Heritage Committee in Decision 43 COM 8B.3. This further extension could also be informed by the positive experience with the addition of Tiaozini in Phase I, which has been noted by the State Party as one of the best practices of World Heritage site protection and management as this addition would provide valuable experience for the protection of the nominated property.

2. Boundaries of nominated component parts

Secondly, in terms of the boundaries of the 24 nominated component parts whose boundaries were not adjusted in supplementary information, IUCN notes that during the evaluation of Phase I, an overview of Phase II was provided in supplementary information. The overall additional area amounted to 260,330 ha. In fact, this number could have been expected to further increase as the component parts of the initially foreseen Phase III nomination were not included in this figure. Measured against the roughly 100,000 ha nominated with a buffer zone of less than 50,000 ha, it becomes clear that the present Phase II is below 50% of the area originally considered for the extension nomination. This adds to above conclusion that the series remains to be completed, beyond the present extension.

Regarding the size of the nominated component parts, IUCN notes that many nominated component parts systematically exclude key areas, thereby not covering any high tide roosting habitats for birds using tidal mudflats. The 2019 evaluation (see document WHC/19/43.COM/INF.8B2) already stressed the importance of the linkages between the supratidal coast and the intertidal system. Desk reviewers further note that the boundaries do not follow features that would be identifiable on the ground: often the boundary is located several hundred metres offshore from a seawall. The boundaries of the buffer zones are often very narrow with only a few hundreds of metres wide. In this respect, IUCN notes that the proposed boundaries largely diverge from the boundaries of the much wider protected areas as legally defined at national or provincial level. This is also the case for the existing protected area zonation, which is not aligned with the proposed boundaries of most of the nominated component parts and their buffer zones. IUCN further notes that the present boundaries have been drawn ahead of a systematic review of the State Party's entire protected area system (see also section 4.1). Hence, the future revised boundaries of the protected areas are not known at the time of the nomination, a situation that may encourage an excessively conservative approach to boundary setting. Therefore, IUCN considers that, in case of inscription of nominated component parts, a further boundary modification may need to be submitted following this systematic review expanding and aligning the nominated areas with the eventual new protected area boundaries.

The nominated component parts of the *Migratory Bird Habitat at Dachaoping of Beidaihe, Qinhuangdao,*

Hebei Province (97.53 ha) and of the *Migratoty Bird Habitat at Shihenandao of Laolongtou, Qinhuangdao, Hebei Province* (128.25 ha) are small in size and situated within heavily urbanised areas. Nevertheless, a more adequate size of these two nominated component parts, providing more significant migratory bird habitat, could be achieved through a significant extension of boundaries further upstream on the Xinhe River and the Shihe River respectively.

In addition, IUCN notes that the present nomination includes some areas that are extremely small in size. For example, the area of the nominated component part of *Dabanshi of Dahaozi Island* amounts to only 0.15 ha (i.e. roughly 20% of a soccer pitch), the nominated component part of *Nandajiao of Guapi Island* only 0.94 ha and numerous others ranging from very modest 1.45 ha to 21.32 ha (nominated component parts of *Wushi of Dahaozi Island; Fantuozi Islet of Guanglu Island; Ertuozi Islet of Gexian Island; Dacaotuozi of Guapi Island; Xiaocaotuozi of Guapi Island; Wuhushi of Haxian Island; Beituozi Islet of Dachangshan Island; Bashao Island Lithoherm Belt*). Taken together, these nominated component parts amount to only 86.5 ha. This is less than the next largest nominated component part of the *Migratory Bird Habitat at Dachaoping of Beidaihe, Qinhuangdao, Hebei Province* (97.53 ha) and amounts to only 0.026% of all nominated and existing areas. Whilst slightly larger, the nominated component part of *Xicaotuozi of Dachangshan Island* (129.49 ha) also does not provide a sufficient area needed by migratory birds. In supplementary information, the State Party explains that the delineation is based on islands and reefs that are significant within the Dalian Changshan Islands National Marine Park, the Dalian Changshan Archipelago National Island Forest Park, and the Dalian Changshan Islands Precious Marine Life Nature Reserve.

External desk reviewers highlighted that these very small nominated component parts are of insufficient area to be properly sustained and managed in the long term, and that they could not support globally important congregations of waterbirds. Nominated areas need to be sufficiently large in order to be able to preserve the long-term ecological integrity and value of the nominated property. Furthermore, IUCN considers it important to ensure that the nominated component parts are ecologically connected and not overly fragmented. In this regard, IUCN also recalls Paragraph 137 (c) of the *Operational Guidelines*, which notes that *"in order to avoid an excessive fragmentation of component parts, the process of nomination of the property, including the selection of the component parts, should take fully into account the overall manageability and coherence of the nominated property"*. As a possible solution, reviewers suggested leveraging the Dalian Changshan Islands National Marine Park to expand the individual nominated component parts (except *Wushi of Dahaozi Island* and *Dabanshi of Dahaozi Island* which are not located in the marine park but would need to be enlarged within the core area of the existing Liaoning Changhai Provincial Nature Reserve of Rare Marine Organisms). In addition, data would need to demonstrate that all key colonies of Chinese Egret (*Egretta eulophotes,* VU) and other waterbirds in the Changshan archipelago, including Black-faced Spoonbill (*Platalea minor*, EN), are protected within revised boundaries. Supplementary information by the State Party provided only the aggregate species lists already presented in the nomination dossier but did not specify to what extent the species are found inside or outside the nominated component parts.

Thus, IUCN concludes that the following nominated component parts do not meet the integrity requirements of the *Operational Guidelines*, due to their insufficient size and in some cases also due to their lack of ecological integrity: *Migratory Bird Habitat at Dachaoping of Beidaihe, Qinhuangdao, Hebei Province* (97.53 ha)*; Migratory Bird Habitat at Shihenandao of Laolongtou, Qinhuangdao, Hebei Province* (128.25 ha); *Dabanshi of Dahaozi Island* (0.15 ha); *Nandajiao of Guapi Island* (0.94 ha); *Wushi of Dahaozi Island* (1.45 ha)*; Fantuozi Islet of Guanglu Island* (12.13 ha)*; Ertuozi Islet of Gexian Island* (6.06 ha)*; Dacaotuozi of Guapi Island* (16.65 ha)*; Xiaocaotuozi of Guapi Island* (8.42 ha)*; Xicaotuozi of Dachangshan Island* (129.49 ha); *Wuhushi of Haxian Island* (8.01 ha)*; Beituozi Islet of Dachangshan Island* (11.37 ha)*; Bashao Island Lithoherm Belt* (21.32 ha). It will nonetheless be essential for the integrity of the EEAF and of the nominated property to ensure that the surrounding, larger protected areas effectively protect the larger values of the ecosystem that surround these small nominated component parts.

Nevertheless, IUCN notes that there are two nominated component parts with a boundary design meeting the requirements, as nominated: The *Migratory Bird Habitat at Chongming Dongtan, Shanghai* (7,504.71 ha) contains the majority of critical feeding habitat for shorebirds whilst the buffer zone adds important high tide roosting habitat. The wetland included within the boundaries is mostly a natural wetland with hardly any human impact. Whilst this nominated component part meets the requirements, its integrity could be further enhanced by expanding the nominated area through a minor boundary modification. Similarly, the nominated component part of the *Migratory Bird Habitat at Nandagang wetland, Cangzou, Hebei Province* (2,922.92 ha) is particularly important for the integrity of the series as it provides habitat to 30 species exceeding flyway thresholds, but could further be improved through an expansion of the area aligned with the surrounding protected area following the systematic review. Any negative impacts from anthropogenic activities, including aquaculture and agriculture, need to be mitigated through careful management and it is recommended to restrict uses in the buffer zone.

Furthermore, the nominated component part of *Snake Island* (323.95 ha) has boundaries that fully encompass the island, which hosts a significant diversity and abundance of landbird migrants and is a bottleneck site for overflying cranes and raptors. The buffer zone of almost 0.5 km in width encircles the nominated area. Located more than seven kilometres away from the mainland, the nominated component

part is sheltered from significant development pressures. Therefore, IUCN considers that *Snake Island* currently meets integrity requirements. In addition, the boundaries align with the Liaoning Snake Island-Laotieshan National Nature Reserve. The mainland part of this Nature Reserve includes the *Jiutou Hill* (768.20 ha) nominated component part, which is similarly important as bottleneck site and covers mostly intact coastal and wooded areas, therefore able to meet integrity requirements. Nevertheless, desk reviewers noted that the boundaries could slightly be expanded to include further key wooded within the National Nature Reserve. Finally, the boundaries of the nominated component parts of *Dayang River* (8,578.14 ha) and *Erdaogou* (8,666.76 ha) represent the most important staging site in the EAAF for the Great Knot (*Calidris tenuirostris*, EN) and the Bar-tailed Godwit (*Limosa lapponica*, NT). The boundaries capture a large area and almost entirely follow the zonation of the Liaoning Yalu River Estuary Coastal Wetland National Nature Reserve.

3. Revised boundaries of nominated component parts

Thirdly, in terms of the boundaries of the five nominated component parts whose boundaries were revised in supplementary information, IUCN notes that the area of all but one of these component parts has been significantly enlarged. For instance, the area of the nominated component parts of *North Part of the Yellow River Estuary* and *Dawenliu* was almost doubled to 8,524.79 ha and 44,091.60 ha respectively. The nominated area of the *Old Course of Yellow River Estuary* has been increased to 14,472.25 ha. Overall, the nominated area was increased by almost 12% (see table 1). Through these boundary adjustments, the nominated component parts in the estuary of the Yellow River have been consolidated. Therefore, the IUCN World Heritage Panel considered that the modified nominated component parts of *Old Course of Yellow River Estuary, North Part of the Yellow River Estuary* and *Dawenliu*, along with the nominated component part of *South Part of the Yellow River Estuary* meet boundary requirements. The two nominated component parts in the Liao River have also been enlarged but are subject to concerns described in section 4.1.

In conclusion, IUCN considers that the following ten nominated component parts meet integrity requirements: *Migratory Bird Habitat at Chongming Dongtan, Shanghai* (7,504.71 ha); *Migratory Bird Habitat at Nandagang wetland, Cangzou, Hebei Province* (2,922.92 ha); *Dayang River* (8,578.14 ha); *Erdaogou* (8,666.76 ha); *Jiutou Hill* (768.20 ha); *Snake Island* (323.95 ha); *Old Course of Yellow River Estuary* (14,472.25 ha); *North Part of the Yellow River Estuary* (8,524.79 ha); *Dawenliu* (44,091.60 ha); and *South Part of the Yellow River Estuary* (5,214.62).

IUCN considers that the boundaries of the following ten nominated component parts meet the requirements of the *Operational Guidelines*: *Migratory Bird Habitat at Chongming Dongtan, Shanghai*; *Migratory Bird Habitat at Nandagang wetland, Cangzou, Hebei Province*; *Dayang River*; *Erdaogou*; *Jiutou Hill*; *Snake Island*; *Old Course of Yellow River Estuary, North Part of the Yellow River Estuary*; *Dawenliu*; *South Part of the Yellow River Estuary*. However, IUCN also considers that the remaining component parts and buffer zones do not meet the requirements of the *Operational Guidelines*.

4.3 Management

The 2019 IUCN evaluation (see document WHC/19/43.COM/INF.8B2) noted that the management of the serial property should not be considered in isolation as the conservation of migratory species on the EEAF has obvious dimensions for transboundary and interregional cooperation requiring to bridge jurisdictions and sectors. The National Forestry and Grassland Administration (NFGA) holds the overall mandate and responsibility for managing natural World Heritage properties, or at least supervising management. As noted in section 4.1, the nominated component parts of the present extension nomination are composed of many different protected area designations. The field evaluation mission considered that NFGA played this overarching role in the complex nomination effort effectively. The nomination dossier notes that The Union of Natural Reserves within Nominated Migratory Bird Sanctuaries along the Coast Yellow Sea-Bohai Gulf of China promotes the nominated areas and established collaboration across boundaries and departments. There is also a “Protection Area Alliance” for the serial approach. However, rather than establishing an overarching management system prior to nominating, the approach taken defines the desired inscription as the trigger for overarching management. The nomination dossier provides a management plan for the newly nominated component parts that outlines ambitions and goals – but without a detailed analysis of the threats to be addressed – for the establishment of the overarching management system after potential inscription. The mission acknowledged that establishing a functioning coordination mechanism for the overall management across designations and provinces in the short time since the inscription of Phase I would have been difficult. IUCN therefore considers that the envisaged establishment of an overall management system after the potential inscription of Phase II an acceptable approach.

The current management therefore focuses on individual protected areas. There are regulations and conservation and management plans in place for all nominated component parts. At the level of municipalities (Shanghai) and provinces (Shandong, Hebei, Liaoning), leading groups were formed to coordinate the nomination of the respective nominated component parts in the given jurisdiction. While such groups have multiple tasks, the focus appears to have been the nomination. Site level management is the task of 11 direct management organizations. A large number of major conservation and restoration activities is being implemented. Both the central and sub-national governments have been investing in the conservation of the protected areas under

consideration for a long time. In addition to contributions from national and international conservation foundations and organizations, the nomination dossier and supplementary information indicate a sufficient level of funding for the nominated property. Staffing for the management of the nominated component parts appears adequate and monitoring for the individual component parts is in place.

Therefore, IUCN considers that there is sufficient capacity to effectively manage the nominated property, though the very small size of some of the nominated component parts will make effective protection and management unattainable (see above). Management will need to focus on mitigating and reducing the impact of threats (see section 4.5) and regulate activities in the buffer zones of the nominated property.

IUCN considers the management of the nominated property meets the requirements of the *Operational Guidelines*, noting that for some component parts there is not a possibility to secure conservation due to their small size and other constraints discussed elsewhere in the report.

4.4 Community

The 2019 IUCN evaluation (see document WHC/19/43.COM/INF.8B2) noted that World Heritage inscription would likely not result in any change in existing community participation and rights and that access to natural resources would not change in case of inscription. The 2019 evaluation considered efforts should be directed to enhancing community engagement in decision making of the nominated property.

Tidal mudflats are exceptionally productive ecosystems which are in most cases easy to use by local communities. It was repeatedly mentioned to the mission that netting birds and collecting bird eggs used to be part of local livelihood systems. However, with the exception of the nominated component part of the *Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province*, traditional use and management of tidal mudflats no longer play an important role as the wider area is focused on industrial use and tourism and research in protected areas. There are no local tenure rights in the nominated component parts.

The nomination notes that the nominated areas are not inhabited, with the exception of eight residents living in the nominated component part of *Dayang River*. With two exceptions, the same holds true for the proposed buffer zones: 1,894 residents live in the buffer zone of *Jiutou Hill* and 460 residents live in the buffer zone of *Dayang River*. According to the nomination dossier, management organizations liaise with residents and encourage community involvement. Tourism, protected area management, restoration, fisheries, and aquaculture arguably provide local income and employment. Based on the information available to IUCN, there do not appear to be any consultation or rights issues concerning the nominated areas. In supplementary information, the State Party indicates that some potential additional areas have not been included as this has not been supported by local communities. The potential completion of Phase II should therefore be preceded by an open consultation process in line with the provisions of the *Operational Guidelines*. Furthermore, continued and increased engagement of communities in the governance and management of the series should be promoted.

4.5 Threats

From the outset, IUCN notes that all nominated component parts have been affected by major coastal development, including intense urban, industrial, and agricultural development at an unprecedented rate (see IUCN's 2019 evaluation WHC/19/43.COM/INF.8B2 and the 2023 IUCN Situation analysis). Only the nominated component part of *Snake Island* stands out with a high degree of naturalness. The nomination dossier acknowledges numerous threats, including habitat loss through large-scale land reclamation, human-driven ecosystem transformation, large ports, marine traffic, upstream dam construction, invasive alien species (IAS), off-shore wind development, climate change, etc. There continue to be vast areas dominated by invasive alien *Spartina alterniflora* (i.e. non-native cordgrass), offering an example of direct threats to inscribed and nominated areas despite ambitious eradication plans and efforts. Therefore, much of the challenge needs to be understood and framed as a restoration effort, as already noted in IUCN's 2019 evaluation.

The Bohai region in particular is very densely populated and intensely developed, especially on the coastline and is considered one of the main centres of the State Party's economic development, both historically and particularly over the last decades. Some of the largest ports in the world are found along the coast under consideration. The very high ecological importance of the property coincides with multiple and major stressors, including from offshore oil and gas development, land reclamation, heavy and chemical industry, overfishing and exploitation of seafood resources, massive aquaculture and mariculture, industrial agriculture, sand mining, industrial river pollution, city sewage and heavy maritime traffic. Salt-making has been shaping parts of the coast for a very long time impacting natural wetlands while often providing valuable human-made habitat for birds and many other organisms. Tourism development is a more recent development. It is also important to understand that land reclamation often destroys tidal mudflats while at times unintentionally creating others elsewhere. The intertidal system undergoes permanent and major change induced by a mix of natural and anthropogenic drivers. This leaves the coast of the Bohai Gulf with a very low degree of naturalness following millennia of intense use, rapidly accelerating over the last decades. While comparable to the wider Yellow Sea, the pressure on the Gulf of Bohai appears to be, if anything, even higher.

As a result of these threats, 81% of monitored bird species in the region are now in decline. The 2023 IUCN Situation analysis of the Yellow Sea notes in particular that of "34 populations of globally threatened and near threatened bird species, 14 (41%) are declining, only 5 are increasing and the rest are stable or uncertain." The analysis also notes that "a minimum of 27 globally threatened and near threatened waterbird species known to depend on the intertidal wetlands that occur regularly in internationally important concentrations in the Yellow Sea, 22 are now considered to be in decline." In this context, it is vitally important for the EEAF and species survival to ensure that the few remaining viable habitats are protected and that areas are restored where this is still possible. This might stabilize the ecosystem functions continuing to enable a key hub on the EAAF. In this regard, IUCN noted in its 2019 evaluation that the integrity can be considered marginal from an ecosystem perspective, but possibly acceptable from the narrow perspective of critical importance for bird migration.

IUCN notes that three nominated component parts include permitted oil exploration and exploitation (see section 4.1). Supplementary information confirms that oil exploitation and exploration is permitted in the nominated component parts of *West Part of Liao River Estuary* and *East Part of Liao River Estuary.* Supplementary information also notes existing oil exploitation as serious threat to the birds and wetlands (see section 4.2 for the discussion on Caofeidian). In line with the position of the World Heritage Committee that mineral exploration or exploitation is incompatible with World Heritage status, IUCN considers that these nominated component parts cannot be retained in the series, unless the licenses are revoked and any existing sites fully remediated.

The nominated component part of the *Migratory Bird Habitat at Qilihai Lagoon, Qinhuangdao, Hebei Province,* is heavily affected by aquaculture, which is partially included within the nominated area. The area of Qilihai Lagoon significantly decreased from 7.95 km^2 to 4.26 km^2 as a consequence of aquaculture. Whilst there are significant restoration efforts, which have already resulted in an increased number of geese, cranes, ducks, shorebirds and gulls, recent poisoning incidents affecting threatened bird species suggest that the negative effect of aquaculture is still a serious concern. Further restoration efforts may be required and the size of the nominated component part could be significantly enlarged within the existing protected area. The buffer zone may also need to be extended due to intensive land use in the surrounding areas. Therefore, IUCN recommends revising the nominated component part and include it in a new nomination to complete the series based on further restoration action.

In summary, the nominated property is subject to extreme pressure. The nominated component parts are likely to be under even more pressure if the protected areas of which they are part are reduced as a result of the systematic review of the State Party's entire protected area system. Whilst a management plan for the nominated component parts is provided in the nomination dossier, IUCN notes that an overall management system for the serial property is not yet fully in place. A full and consolidated management plan integrating Phase I and Phase II, with detailed budgets for conservation and restoration action is therefore a high priority and should also incorporate tourism planning within the limits of the nominated property's carrying capacity.

In summary, IUCN considers that the integrity, protection and management of many individual components is adequate: *Migratory Bird Habitat at Chongming Dongtan, Shanghai; Old Course of Yellow River Estuary; North Part of the Yellow River Estuary; South Part of the Yellow River Estuary; Dawenliu; Migratory Bird Habitat at Nandagang wetland, Cangzou, Hebei Province; Jiutou Hill; Snake Island; Dayang River; Erdaogou.* However, IUCN also considers that the integrity requirements of the *Operational Guidelines* are not met by of the following nominated component parts: *Migratory Bird Habitat at Qilihai Lagoon, Qinhuangdao, Hebei Province; Migratory Bird Habitat at Dachaoping of Beidaihe, Qinhuangdao, Hebei Province; Migratory Bird Habitat at Shihenandao of Laolongtou, Qinhuangdao, Hebei Province; Fantuozi Islet of Guanglu Island; Ertuozi Islet of Gexian Island; Dacaotuozi of Guapi Island; Xiaocaotuozi of Guapi Island; Nandajiao of Guapi Island; Wuhushi of Haxian Island; Wushi of Dahaozi Island; Dabanshi of Dahaozi Island; Xicaotuozi of Dachangshan Island; Beituozi Islet of Dachangshan Island; Bashao Island Lithoherm Belt; Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province; West Part of Liao River Estuary; East Part of Liao River Estuary.* The detailed consideration of the different component parts is set out below and in the preceding sections.

5. ADDITIONAL COMMENTS

5.1 Consideration in relation to serial properties

a) What is the justification for the serial approach?

The Yellow Sea (see 2023 IUCN Situation analysis) is characterized by significantly developed coasts with only semi-natural remnants and restoration areas. Coastal connectivity is severely reduced by infrastructure and major loss and degradation of natural habitats. The once vast coastal wetlands supporting huge herbivore populations with predator-prey dynamics have largely vanished. The migratory birds seem to be able to cope with the many barriers. Thus, the nomination's focus on migratory birds and their key habitats leaves little other choice than to select dispersed areas, which are conservation priorities. In line with its 2019 evaluation, IUCN considers that the intertidal mudflat system no longer exists as an uninterrupted system so that a serial approach is the only practical option to protect critical natural habitat and functions across what is one integrated ecosystem. The extension of the existing property is necessary to fully justify the serial approach.

b) Are the separate component parts of the nominated property functionally linked in relation to the requirements of the Operational Guidelines?

While coastal connectivity has been compromised by massive development, the connectivity for the EAAF remains functional for the time being, despite obstacles such as the many onshore and offshore wind farms. The functional links between the nominated component parts is established through the migration on the EEAF and supported by protected areas that are large enough to serves as stopover, feeding/refuelling, moulting, wintering, and breeding sites.

However, as noted above (see sections 4.2 and 5.1(b)), there are nominated component parts that could be consolidated, and functional linkage improved through revised boundaries. In this regard, IUCN notes that there are nine nominated component parts located within the same protected area: *Fantuozi Islet of Guanglu Island; Ertuozi Islet of Gexian Island; Dacaotuozi of Guapi Island; Xiaocaotuozi of Guapi Island; Nandajiao of Guapi Island; Wuhushi of Haxian Island; Xicaotuozi of Dachangshan Island; Beituozi Islet of Dachangshan Island;* and *Bashao Island Lithoherm Belt*. The Dalian Changshan Islands National Marine Park encompasses all these nominated component parts which only cover a fraction of the area of the Marine Park. As the data provided in the dossier and the supplementary information is not specific to each of the nine nominated component parts, but only provided as aggregate number for all of them, it is not possible to discern that these nominated component parts adequately cover the distribution range of the migratory birds. Given their extremely small size – the nine nominated component parts totalling only 214.39 ha, i.e. 0.065% of the nominated property's area (see also section 4.2) –, they are not only lacking integrity in themselves, but they are also not adding to the integrity of the nominated property as a whole. IUCN therefore considers that the serial approach is not justified for these nominated component parts and recommends that the boundaries of the nominated areas are revised to cover the entire, or at least significant sections, of the existing protected area as it is also the case for all other nominated component parts.

c) Is there an effective overall management framework for all the component parts of the nominated property?

As noted in section 4.3, the nominated component parts are subject to varying protected area designations. NFGA is responsible for the management of natural World Heritage properties and the nomination includes a management plan describing goals for the time after potential inscription. The Union of Natural Reserves within the Nominated Migratory Bird Sanctuaries along the Coast Yellow Sea-Bohai Gulf of China has promoted collaboration across boundaries and departments for the nominated areas. A "Protection Area Alliance" has also been established for the serial approach. However, the overarching management system is expected to be put in place only after potential inscription. The mission recognized the difficulty of establishing a coordination mechanism for overall management across designations and provinces shortly after Phase I inscription. Therefore, it considered the proposed establishment of an overall management system after potential Phase II inscription an acceptable approach. In addition, IUCN notes that besides coastal wetland conservation initiatives and EAAF efforts, the Phase II nomination appears to serve as major effort to foster a coherent approach. This is a promising basis for the envisaged management framework.

5.2 Consideration in relation to transnational dimension

With three States Parties located along the coasts of the Yellow Sea, there is an obvious transboundary dimension. There are many efforts to support transboundary conservation, including by IUCN. The recent inscription of Getbol, Korean Tidal Flats (Republic of Korea) is relevant in this regard. In its 2019 evaluation (see document WHC/19/43.COM/INF.8B2), IUCN has called for bridging jurisdictions and sectors with a vision of an eventual trans-national approach. Consequently, the World Heritage Committee has encouraged "all related States Parties in the Flyway to cooperate with each other, in relation to the potential for future transboundary serial nominations, and/or extensions, that more fully reflect the habitat needs and patterns of use of migratory birds along the East Asian Australasian Flyway" (Decision 43 COM 8B.3). In Decision 44 COM 8B.6, inscribing Getbol, Korean Tidal Flats (Republic of Korea), the Committee echoed this encouraging the State Party "to further strengthen collaboration with other concerned States Parties to improve the conservation of critical habitats within the Eastern Asian-Australasian Flyway in relation to potential future transnational serial nominations, and/or extensions and, in particular, to coordinate with the State Party of China in relation to the anticipated Phase II nomination for Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China, potentially through the 2007 Korea-China Agreement on the Protection of Migratory Birds". IUCN continues to stand ready to support such initiatives.

5.3 Naming of the serial nomination

IUCN considers that the serial property should be named **Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China**, thus not retaining in the name either "Phase I" or "Phase 2", but noting that a further phase of the nomination is required.

6. APPLICATION OF CRITERIA

The **Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China (Phase II) (China)** has been nominated under natural criterion (x).

Criterion (x): Biodiversity and threatened species

The nominated contains a range of component parts that do provide critical habitat for a large number of mostly migratory bird species, several of which critically depend on the coastal-marine ecosystem under consideration. Phase II undoubtedly includes areas that add significant value to the existing World Heritage property, currently consisting of only two component parts, and therefore holds the potential of enhancing the integrity of the existing property. The following ten nominated component parts of this extension improve the integrity of the existing property whilst exhibiting acceptable levels of intactness within the specific context of the wider Yellow Sea region and acceptable levels of protection and management:

- *Migratory Bird Habitat at Chongming Dongtan, Shanghai*
- *Old Course of Yellow River Estuary*
- *North Part of the Yellow River Estuary*
- *South Part of the Yellow River Estuary*
- *Dawenliu*
- *Migratory Bird Habitat at Nandagang wetland, Cangzou, Hebei Province*
- *Jiutou Hill*
- *Snake Island*
- *Dayang River*
- *Erdaogou*

The area initially nominated (293,384.70 ha) was increased to 328,494.85 ha by the State Party through the revision of several nominated component parts in supplementary information. The area IUCN recommends for inscription amounts to 289,710.94 ha with buffer zones totalling 117,502.10 ha (127,128.28 ha initially nominated, 128,991.98 ha as revised by the State Party). There remains potential to further enlarge the areas of above-mentioned ten component parts following conclusion of the review of the State Party's protected areas, if necessary, through the submission of a minor boundary modification.

IUCN considers that these ten nominated component parts meet this criterion.

The following 12 further component parts exhibit more significant issues related to integrity and/or protection and management and require a change in boundaries to enlarge the proposed component parts so as to align to the maximum extent possible with existing protected area boundary core zones, and to clarify the presence of key species within the nominated component parts. This requires a more fundamental reconsideration in relation to the possibility to meet criterion (x):

- *Migratory Bird Habitat at Qilihai Lagoon, Qinhuangdao, Hebei Province;*
- *Migratory Bird Habitat at Dachaoping of Beidaihe, Qinhuangdao, Hebei Province;*
- *Migratory Bird Habitat at Shihenandao of Laolongtou, Qinhuangdao, Hebei Province;*
- *Fantuozi Islet of Guanglu Island;*
- *Ertuozi Islet of Gexian Island;*
- *Dacaotuozi of Guapi Island;*
- *Xiaocaotuozi of Guapi Island;*
- *Nandajiao of Guapi Island;*
- *Wuhushi of Haxian Island;*
- *Wushi of Dahaozi Island;*
- *Dabanshi of Dahaozi Island;*
- *Xicaotuozi of Dachangshan Island;*
- *Beituozi Islet of Dachangshan Island;*
- *Bashao Island Lithoherm Belt;*

Decision 43 COM 8B.3 of the World Heritage Committee requested that the State Party confirm the presence of the attributes of Outstanding Universal Value within the boundaries of the Phase II nomination, clearly demonstrate that the integrity of all natural attributes contributing to the property's Outstanding Universal Value can be conserved within each of the component parts, and ensure that there are no unacceptable negative effects of development on the attributes of conservation significance in each of the component parts of the nominated property. In this respect, IUCN notes that a number of nominated component parts are extremely small and/or are composed by a number of very small sub-components, with narrow and sometimes incomplete buffer zones, often exclude roosting habitat, and are often close to development projects and/or existing infrastructure, all of which will likely make it challenging to maintain integrity going forward. IUCN notes that the supplementary information requested with respect to species lists in the Phase II nomination does not provide new information regarding the attributes of Outstanding Universal Value found within the nominated areas, and IUCN was not able to confirm that key species are indeed found within the boundaries of the nominated component parts rather than in their buffer zones or further outside.

Furthermore, the nomination includes component parts that clearly do not meet protection requirements in respect to criterion (x), as these sites are open to oil exploration, and raise additional integrity and boundary concerns, and these areas are therefore are not recommended for inclusion in the serial property until such conflicting uses have been eliminated:

- *Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province;*
- *West Part of Liao River Estuary*
- *East Part of Liao River Estuary*

Finally, IUCN considers that further component parts, not included in the present Phase II nomination, would need to be included to complete the series. While the exclusion of some sites was clearly explained in the supplementary information provided by the State Party, a number of critically important sites identified in the Phase I nomination dossier and in the State Party's Tentative List for future nomination were not included in the Phase II nomination. These include the Jiangsu Rudong Coastal Wetland, Rudong-Tiezuisha Coast, and Lianyungang Salt Works. While the supplementary information provided by the State Party addresses these sites, indicating a number of concerns with these nominated component parts ranging from integrity issues to concerns from local communities, these

areas have been consistently identified as high priorities in the scientific literature, and by experts consulted during IUCN's evaluation process. Thus, IUCN's view is that these potential areas should be included in another extension nomination to ensure completeness of the overall series. It would also be possible for such a further phase to consider if some of the areas that are not suitable for inclusion in the present extension could be significantly revised and extended to meet integrity and protection and management requirements.

On the basis of such a final extension nomination to complete Phase II, the possibility of renominating the entire property under criterion (ix) could be reconsidered as the 2019 IUCN evaluation (see document WHC/19/43.COM/INF.8B2) suggested that the full range of the components of the proposed series as a whole has the potential to meet criterion (ix).

In view of the complexity of the nomination, a summary table is provided as Annex I of this report to aid understanding of IUCN recommendations.

7. RECOMMENDATIONS

IUCN recommends that the World Heritage Committee adopts the following draft decision:

The World Heritage Committee,

1. Having examined Documents WHC/24/46.COM/8B and WHC/24/46.COM/INF.8B2,

2. Recalling decision **43 COM 8B.3** of the Committee,

3. Approves the extension of the **Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China (Phase I), China**, to become the **Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China, China**, on the World Heritage List on the basis of **criterion (x)** through the addition of the following nominated component parts included in the present (Phase II) nomination:

- *Migratory Bird Habitat at Chongming Dongtan, Shanghai;*
- *Old Course of Yellow River Estuary;*
- *North Part of the Yellow River Estuary;*
- *South Part of the Yellow River Estuary;*
- *Dawenliu;*
- *Migratory Bird Habitat at Nandagang wetland, Cangzou, Hebei Province;*
- *Jiutou Hill;*
- *Snake Island;*
- *Dayang River;*
- *Erdaogou;*

4. Adopts the following Statement of Outstanding Universal Value for the property as a whole including the newly approved component parts outlined above:

Brief synthesis

The Migratory Bird Sanctuaries along the Coast of the Yellow Sea-Bohai Gulf of China, inscribed through Phase I (2019) and Phase II (2024) of a serial nomination process, are situated in the largest intertidal wetland system in the world and one of the most biologically diverse. The property is located in the Yellow Sea Ecoregion, and supports crucial habitats for birds migrating along the East Asian-Australasian Flyway, its wetlands serving a unique ecological function as indispensable stopover and staging sites during northward/southward migration. The Yellow Sea and the Gulf of Bohai are a bottleneck for many millions of migratory waterbirds – more than 10% of the total migration along the East Asian-Australasian Flyway. The property is thus an irreplaceable and indispensable hub for birds migrating along the East Asian-Australasian Flyway, which spans not only China, Democratic People's Republic of Korea and the Republic of Korea, within the Yellow Sea, but also some 22 countries across two hemispheres from the Arctic to South-East Asia and Australasia. The global importance of the wider coastal area is evidenced by several Ramsar sites, some of which fully or partially overlap with component parts of the property. Thus, this property is a globally significant example of the shared natural heritage embodied in migratory birds.

The twelve component parts of the property are located along the Yellow Sea coast of China, including the Bohai Gulf, with a total area of 289,710.94 ha, and a buffer zone of 117,502.10 ha. The Getbol, Korean Tidal Flats World Heritage property (Republic of Korea) further strengthens the protection of the Flyway. In light of the fact that human activity has transformed many of the region's tidal wetlands, there is a need for effective measures to halt major threats and restore key migratory bird habitats, and for further national and transnational serial nominations, and/or extensions to strengthen the integrity of the property.

Criterion (x)

The Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China support more than 400 species of birds. The property's tidal flats are of exceptional importance for the conservation of the world's migratory birds, supporting internationally significant numbers of migratory bird species, including globally threatened species. The component parts of the Migratory Bird Habitat in the South of Yancheng, Jiangsu and the Migratory Bird Habitat in the North of Yancheng, Jiangsu alone are significant for more than 10% of the East Asian-Australasian Flyway populations and provide critical habitat for two of the world's rarest migratory birds – the Spoon-billed Sandpiper and the Nordmann's Greenshank, which depend on the tidal flats for their continued survival. The wetlands within the Migratory Bird Sanctuaries along the Coast of Yellow Sea Bohai Gulf of China serve a unique ecological function as indispensable stopover and staging sites that provide necessary food resources, ensuring fat replenishment and storage for subsequent flights during northward/southward migration. Without these important hubs, the successful migration, breeding, and population maintenance of birds in the flyway could not be

maintained. In addition to providing stopover habitat for migratory birds, the nominated component parts also include wintering areas and breeding areas for at least 45 threatened bird species including shorebirds, waterfowl, and raptors.

The property's tidal flats also provide important migratory habitat for the threatened Black-faced Spoonbill, Oriental Stork, Red-crowned Crane and Great Knot; the Chinese Egret, Dalmatian Pelican, Swan Goose, Relict Gull and Saunders's Gull. The property also supports further migratory bird species, including the Red Knot, Asian Dowitcher, Black-tailed Godwit, Eurasian Curlew, Reed Parrotbill, Curlew Sandpiper, Greater Sand Plover, Lesser Sand Plover and Ruddy Turnstone. Other migratory birds that utilise the property include the Eurasian Oystercatcher, Pied Avocet, Grey Plover, Kentish plover, Far Eastern Curlew, Broad-billed Sandpiper, Red-necked Stint, Sanderling, Dunlin, Terek Sandpiper, and Common Tern. The property also hosts large numbers of zoobenthos and fish species as well as important mammal, amphibian and reptile species, all part of the coastal ecosystems the migratory birds depend on.

Integrity

The property as a whole makes an indispensable contribution to the viability of the East Asian-Australasian Flyway, one of the world's most important flyways and arguably the one most at risk and fragile. The twelve component parts of the property include clear boundaries for adequate protection of birds when they are on-site. It is, however, important to understand that the birds depend on wider coastal habitats such as reed beds and groves and hence protection and restoration efforts in these areas are equally important. The property comprises large tracts of mudflats, beaches, and other key stopover habitats for migrating birds. The intertidal mudflats, marshes and shallow waters are exceptionally productive and provide spawning and nursery habitat for many fish and crustacean species. In particular, the intertidal mudflats attract a high diversity and enormous number of resident and migratory birds. The intertidal mudflats, which have shaped the crucial habitat for migratory birds, are fed by large rivers (including the Yellow River, Yangtze River, Yalu River, Liao River, Luan River and Hai River) that provide the crucial underpinnings of this system as they continuously discharge sediments into the Yellow Sea and Bohai Gulf, accumulating to form a series of different habitat types all critical for various migratory birds.

The 2024 inscription of ten additional component parts in the Phase II extension has enhanced the integrity of the Phase I property inscribed in 2019, added over 100,000 hectares of migratory bird habitat. Nevertheless, there are further important areas that would deserve to be included in the existing series to fully meet integrity requirements and to fully implement Decision 43 COM 8B.3 of the World Heritage Committee, which first inscribed the property in 2019. This decision was taken by the Committee on the understanding that the State Party would submit a nomination that includes all the additional components of the proposed serial listing as a whole, in order to reflect the full range of natural wealth and diversity of the ecoregion and to meet integrity requirements, supported by a comprehensive and detailed overview and analysis of priority conservation areas in the Yellow Sea and Bohai Gulf, including the fourteen additional areas identified in the original Phase I nomination, fully taking into account ecosystem and habitat diversity of the coastal system, proposed boundaries, values (including species occurrence, abundance and conservation status), threats, integrity, protection and management.

The entire coastline lies within a densely populated and intensively used part of China that has been subject to very substantial anthropogenic modification and impact over a long period. While human activity has transformed vast tracts of the coast and tidal wetlands, policies that promote a more ecologically sustainable society are emerging to halt the transformation of the remaining natural areas and to even reverse trends by restoring key migratory bird habitats. To add complexity, however, many of the underlying factors of change, such as pollution, oil exploration and exploitation, marine traffic, the modification of major rivers and their sediment loads, wind energy and infrastructure on land and in the sea, stem from outside the property including the coast and near-shore waters.

Protection and Management Requirements

The component parts of the property are state-owned and fully protected by law. Ecological Red Lines are also conducive to their conservation and effective management. These management and conservation policies provide the
necessary mechanisms for maintaining intact ecosystems and biological processes within the property. Furthermore, it is essential that the buffer zones in areas adjacent to the component parts provide an added layer of protection against wider threats.

In light of the major past transformation of, and profound impacts on the coastal and intertidal ecosystems and ongoing high pressures and threats, protection measures need to be strengthened and expanded, including through the planned designation of two national parks, but also through the avoidance and mitigation of threats from outside the boundaries of the property. In this respect, China has established a series of wetland conservation policies, including the Notice of the State Council on Strengthening the Protection of Coastal Wetlands and Strictly Controlling Land Reclamation from Sea (G.F. [2018] No.24), the Notice of the General Office of the State Council on Issuing the Scheme of Wetland Protection and Restoration System (G.B.F. [2016]No.89), and the Guiding Opinions on Establishing a Nature Reserve System with National Parks as the Main Component. The Wetland Protection Law China has completely prohibited reclamation projects and actively advanced the restoration of tidal flat ecosystems in some damaged areas, representing a change from "seeking resources from nature" to "living in harmony with nature". Under the conservation and management plan of each component part, local residents are permitted

to continue traditional environmentally sustainable marine fishing, aquaculture and farming activities in the component parts.

The local governments of Shanghai, Shandong, Hebei and Liaoning have approved the establishment of leading groups and offices for the World Heritage inscription, and assigned full-time personnel for the conservation and management of the property's component parts and buffer zones. For each component part, specific management organizations and protection teams have been established, and detailed management regulations and measures have been enacted. Tourism will be concentrated in limited designated areas, and local residents are encouraged to engage in the conservation and publicity of the component parts and protected areas. Most tourism use is physically separated from the protected areas and limited to visitor centres, and tourism should be appropriately scaled and low impact. Future planning and management for each of the component parts of the property needs to ensure that there are no negative effects of development on biodiversity and threatened species, including any negative effects of tourism, wind turbines, pollution (including from noise), land reclamation, and infrastructure development. Specific strategies and action are required to ensure conservation of areas above the tidal areas and to restore degraded wider systems that are important to support the core habitat within the property.

Spanning beyond China's borders, the intertidal wetlands of the Yellow Sea-Bohai Gulf support crucial habitats for birds migrating along the East Asian-Australasian Flyway. Beyond the national level, there is further and related World Heritage potential, which deserves to be considered as the involved countries intensify efforts towards a harmonized conservation and management strategy of the most valuable regional stepping stones of the East Asian-Australasian Flyway. Effective conservation and management of the East Asian-Australasian Flyway will require international cooperation involving all the States Parties along the flyway. The initial efforts of the three States Parties in the central hub of the flyway (China, Democratic Peoples Republic of Korea and Republic of Korea) are encouraging and should be continued and expanded, including under the World Heritage Convention and other international initiatives.

5. Takes note of the following component parts in the present nomination, which are not recommended for inclusion in the serial property at the present time:

- *Migratory Bird Habitat at Qilihai Lagoon, Qinhuangdao, Hebei Province;*
- *Migratory Bird Habitat at Dachaoping of Beidaihe, Qinhuangdao, Hebei Province;*
- *Migratory Bird Habitat at Shihenandao of Laolongtou, Qinhuangdao, Hebei Province;*
- *Fantuozi Islet of Guanglu Island;*
- *Ertuozi Islet of Gexian Island;*
- *Dacaotuozi of Guapi Island;*
- *Xiaocaotuozi of Guapi Island;*
- *Nandajiao of Guapi Island;*
- *Wuhushi of Haxian Island;*
- *Wushi of Dahaozi Island;*
- *Dabanshi of Dahaozi Island;*
- *Xicaotuozi of Dachangshan Island;*
- *Beituozi Islet of Dachangshan Island;*
- *Bashao Island Lithoherm Belt;*

and recommends the State Party before considering potential resubmission of these component parts in any future nomination to expand the boundaries of the nominated component parts so as to meet integrity, protection and management requirements, and to align them appropriately with existing protected area boundary core zones, whilst demonstrating the presence of key species within the boundaries of the nominated component parts;

6. Also takes note of the following component parts in the present nomination, which are not recommended for inclusion in the serial property at the present time in line with the established position of the World Heritage Committee that mineral exploration or exploitation is incompatible with World Heritage status:

- *Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province;*
- *West Part of Liao River Estuary;*
- *East Part of Liao River Estuary;*

and recommends the State Party before considering potential resubmission of these component parts in any future nomination to unequivocally revoke permits for hydrocarbon exploration and exploitation, and to expand the boundaries of the nominated component parts to meet integrity, protection and management requirements, and to align them appropriately with existing protected area boundary core zones;

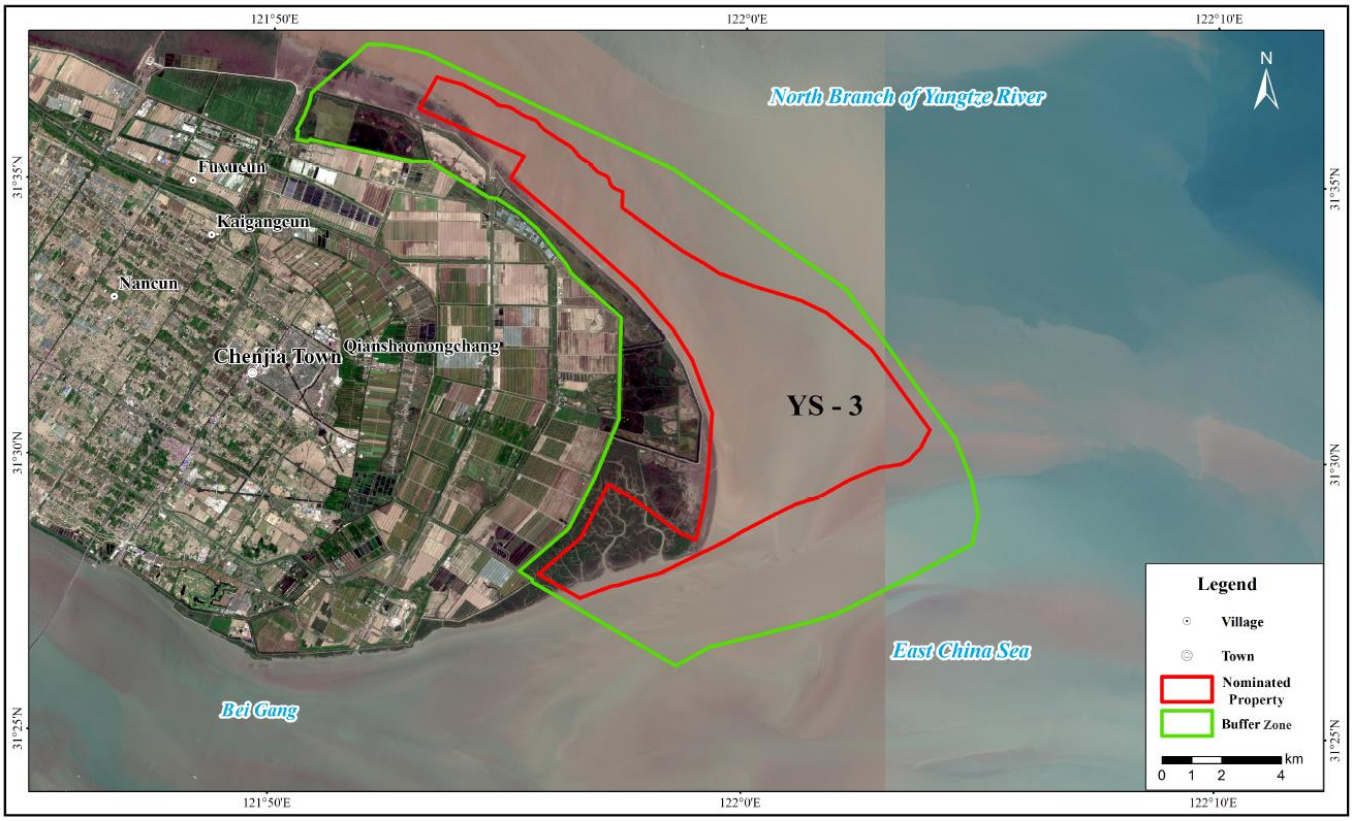
7. Strongly encourages the State Party to fully implement Committee Decision **43 COM 8B.3** and to complete the series by nominating a further phase of the nomination, to include the Jiangsu Rudong Coastal Wetland, Rudong-Tiezuisha Coast, and Lianyungang Salt Works, all of which have been recognised to be of exceptional importance to the East Asian Australasian Migratory Flyway, as well as appropriately reconfigured component parts referred to above, which meet the necessary integrity and protection and management requirements of the *Operational Guidelines*;

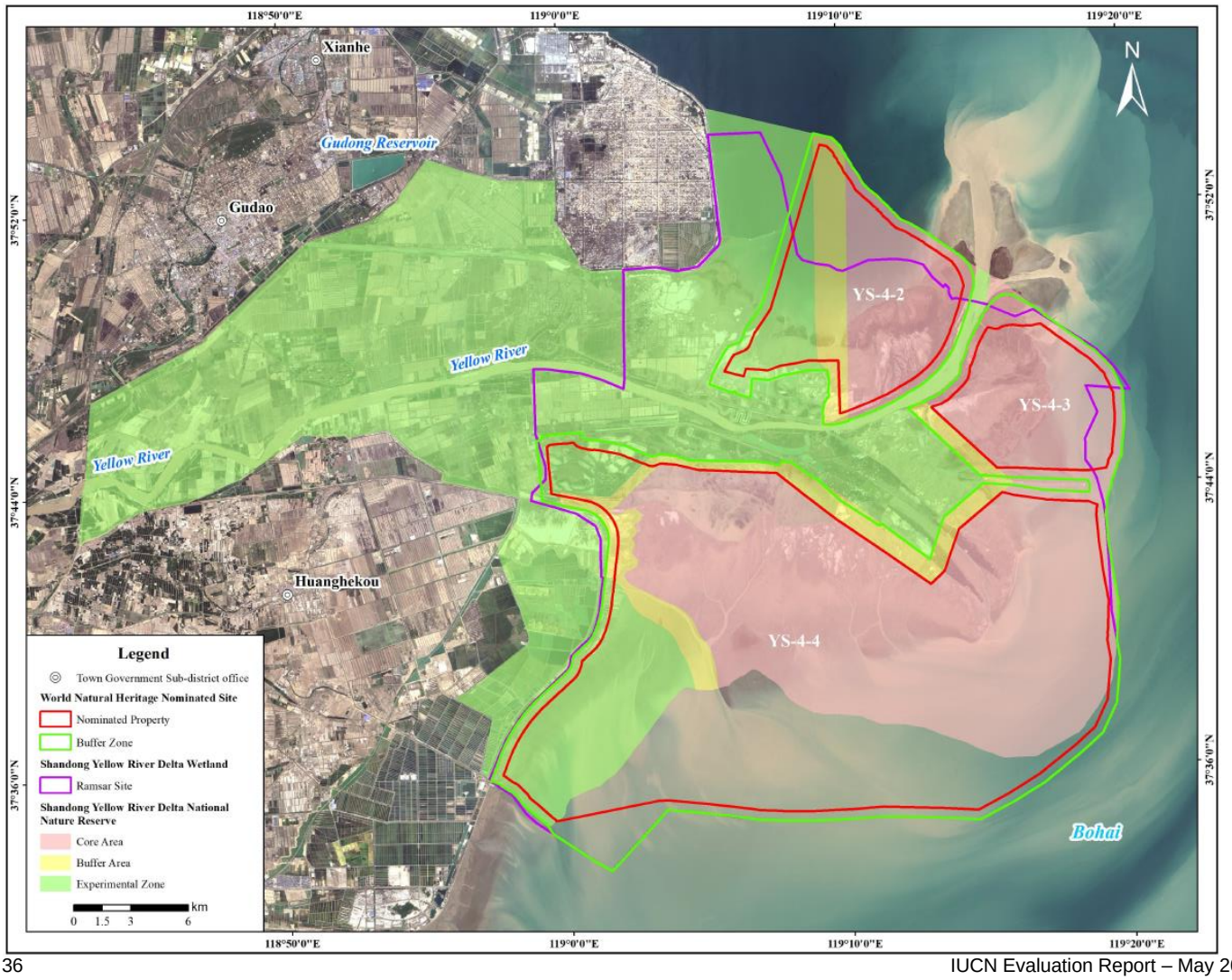
8. Requests the State Party to establish the overarching management system integrating all of the inscribed component parts as soon as practicable and to ensure that this plan includes a strategy for sustainable tourism and reinforced measures to address threats from invasive alien species, agricultural run-off, industrial and urban developments, as well as effective disaster risk reduction measures for those component parts in the vicinity of hydrocarbon exploration and exploitation;

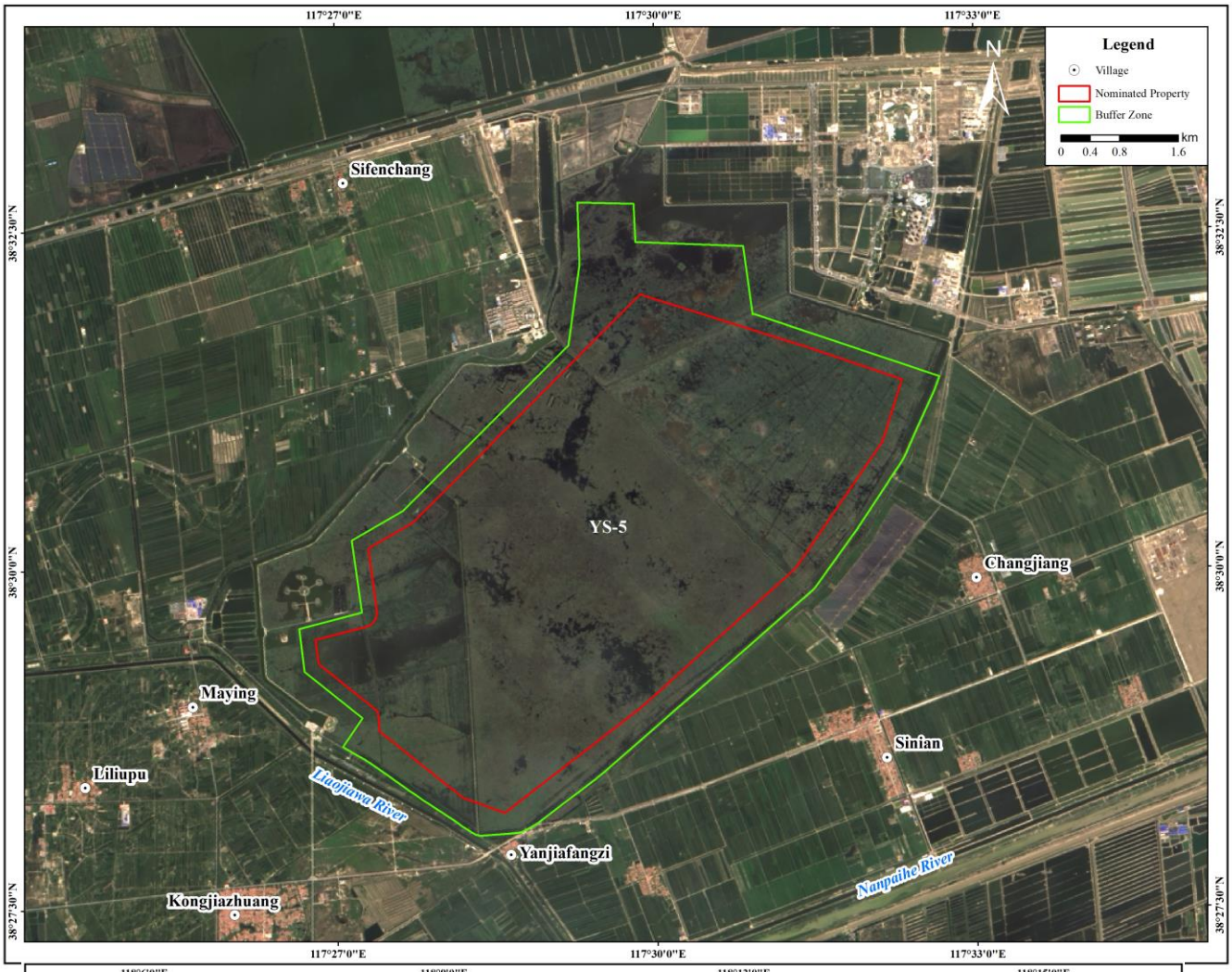
9. Encourages the State Party to expand the boundaries of relevant inscribed component parts aligning them with the boundaries of existing protected areas to the maximum extent possible following the completion of the State Party's current systematic

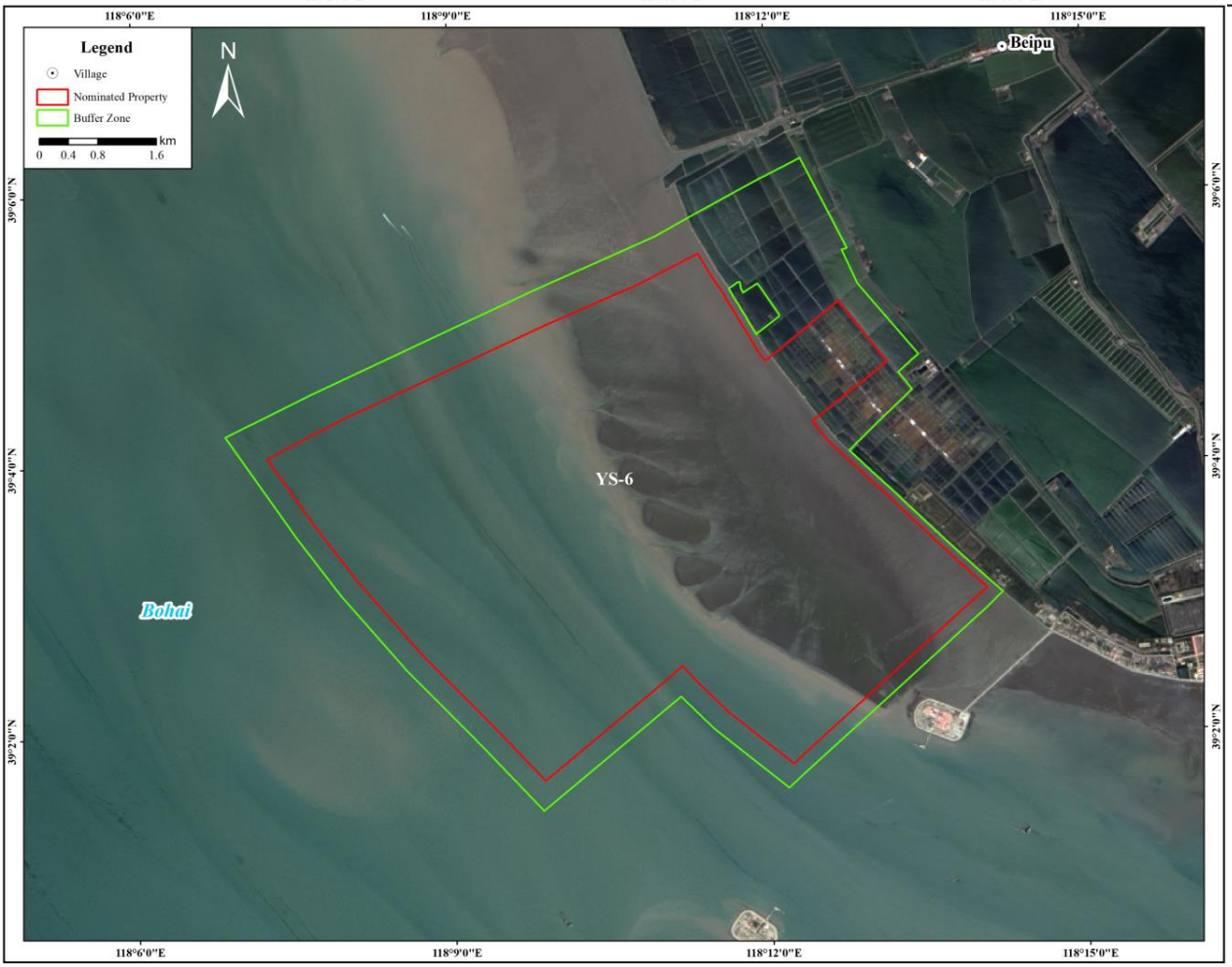
review of its entire protected area system being undertaken, including enlarging and consolidating buffer zones where feasible, so as to enhance coverage of migratory bird habitats, through the possible submission of a boundary modification.

Maps 1-11: Boundaries of the nominated property and buffer zones (Source: nomination dossier and supplementary information)





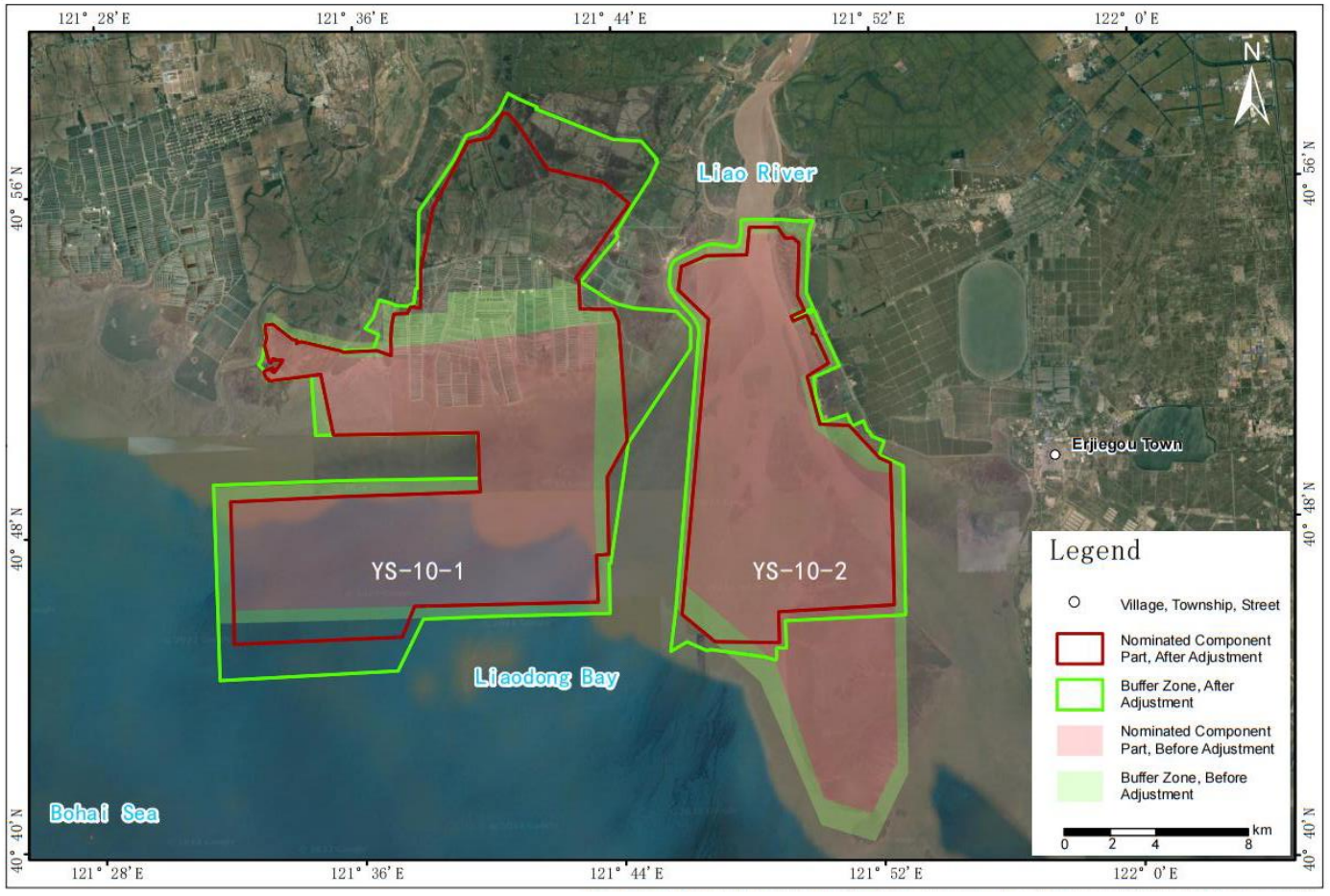

117°27'0"E
117°30'0"E
117°33'0"E
38°32'30"N
38°30'0"N
38°27'30"N
N
Legend
Village
Nominated Property
Buffer Zone
km
0 0.4 0.8 1.6
Sifenchang
YS-5
Changjiang
Maying
Liliupu
Liaojiawa River
Sinian
Yanjiafangzi
Nanpaihe River
Kongjiazhuang


118°6'0"E
118°9'0"E
118°12'0"E
118°15'0"E
39°6'0"N
39°4'0"N
39°2'0"N
N
Legend
Village
Nominated Property
Buffer Zone
km
0 0.4 0.8 1.6
Beipu
YS-6
Bohai

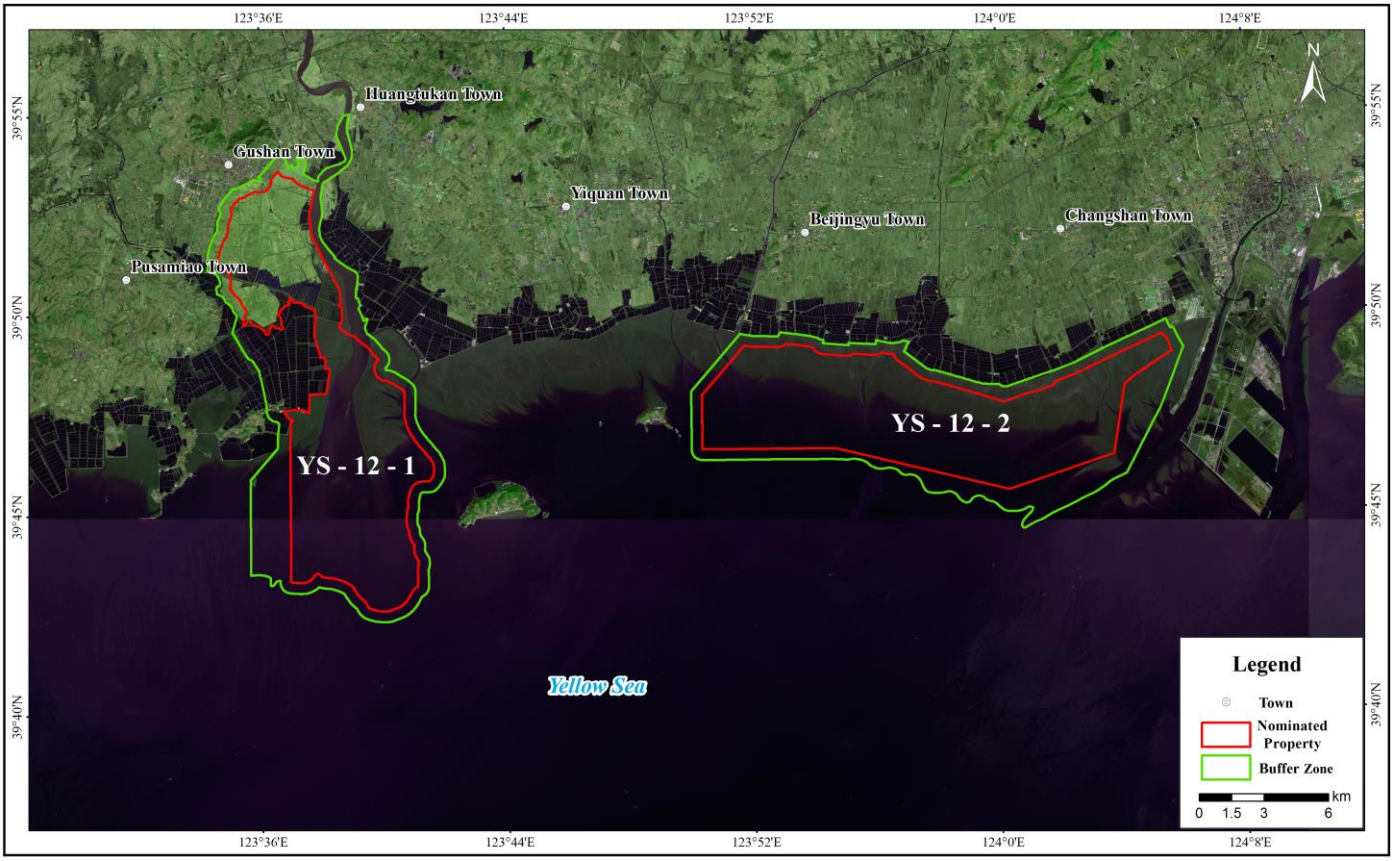

119°12'0"E
119°15'0"E
119°18'0"E
39°36'0"N
39°34'0"N
39°32'0"N
N
Caizhuang
Lizhuang
Tuanlin
Houli
Liushangzhuang
Zhongxinlizhuang
Qilihai Lagoon
Chaohe River
YS-7
Bohai
Legend
Village
Nominated Property
Buffer Zone
km
0 0.35 0.7 1.4


119°30'30"E
119°31'0"E
119°31'30"E
119°32'0"E
39°51'0"N
39°50'0"N
39°49'0"N
N
Qianshuiwan
Xinhe River
YS-8
Bohai
Geziwo Park
Legend
Locality with Local Name
Nominated Property
Buffer Zone
km
0 0.1 0.2 0.4


119°45'45"E
119°46'30"E
119°47'15"E
39°58'0"N
39°57'30"N
39°57'0"N
N
Shihe River
Chaohe River
Tianzhuang
Shihenandao
YS-9
Bohai
Legend
Village
Locality with Local Name
Nominated Property
Buffer Zone
km
0 0.1 0.2 0.4


121° 28' E
121° 36' E
121° 44' E
121° 52' E
122° 0' E
40° 56' N
40° 48' N
40° 40' N
N
Liao River
Erjiegou Town
YS-10-1
YS-10-2
Liaodong Bay
Bohai Sea
Legend
Village, Township, Street
Nominated Component Part, After Adjustment
Buffer Zone, After Adjustment
Nominated Component Part, Before Adjustment
Buffer Zone, Before Adjustment
km
0 2 4 8


121°0'E
121°3'E
121°6'E
121°9'E
N
Bohai Sea
YS - 11 - 2
Snake Island
YS - 11 - 1
Beihai Town
Jiutou Hill
Shuangdaowan
38°58'N
38°56'N
38°54'N
Legend
Town
Nominated Property
Buffer Zone
km
0 0.5 1 2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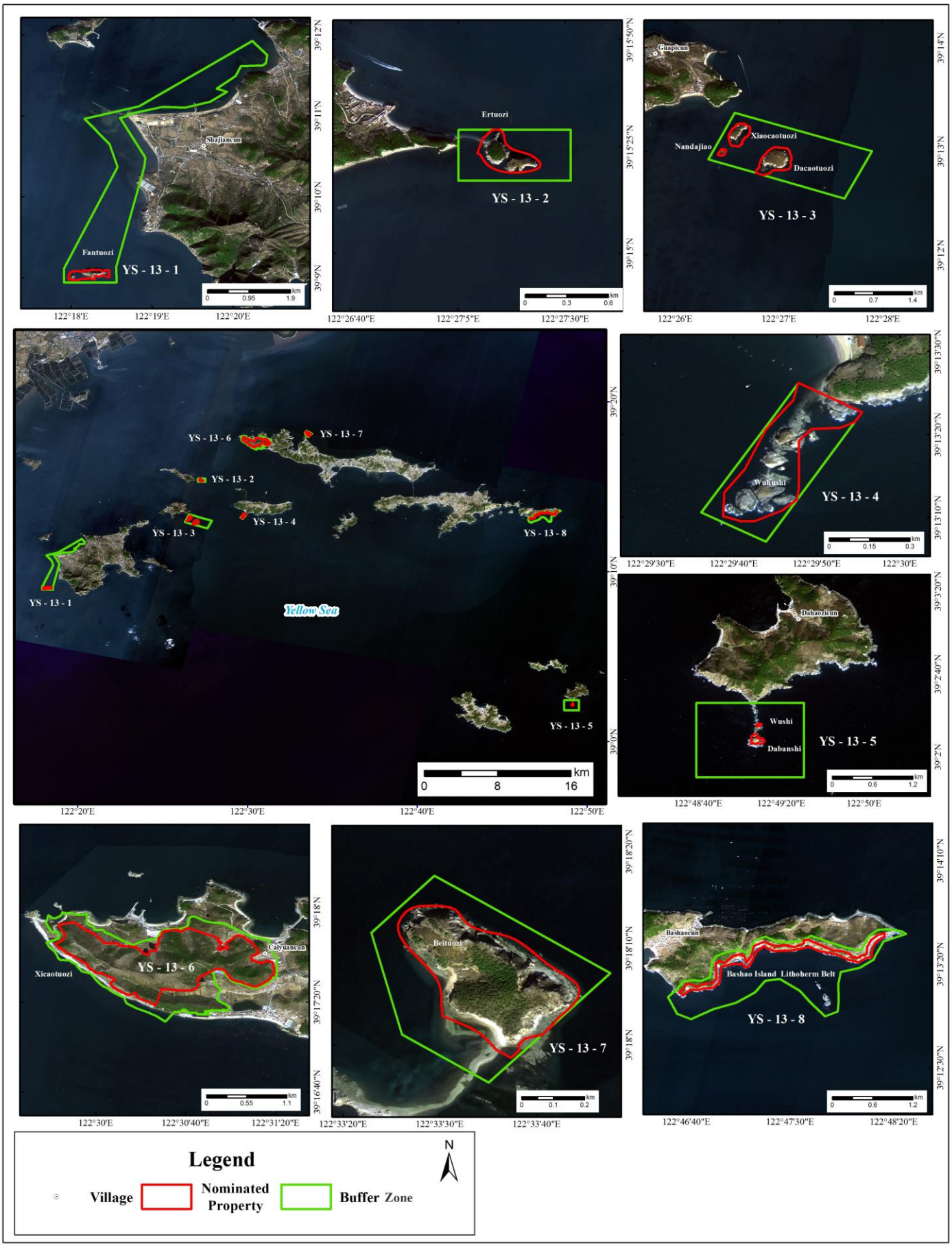
123°44'E
123°52'E
124°0'E
124°8'E
N
Huangtukan Town
Gushan Town
Yiquan Town
Beijingyu Town
Changshan Town
Pusamiao Town
YS - 12 - 2
YS - 12 - 1
Yellow Sea
39°55'N
39°50'N
39°45'N
39°40'N
Legend
Town
Nominated Property
Buffer Zone
km
0 1.5 3 6


Shajiancun
Fantuozi
YS - 13 - 1
Ertuozi
YS - 13 - 2
Guapicun
Nandajiao
Xiaocaotuozi
Dacaotuozi
YS - 13 - 3
YS - 13 - 6
YS - 13 - 7
YS - 13 - 2
YS - 13 - 3
YS - 13 - 4
YS - 13 - 8
YS - 13 - 1
Yellow Sea
YS - 13 - 5
Wuhushi
YS - 13 - 4
Dahaozicun
Wushi
Dabanshi
YS - 13 - 5
Xicaotuozi
Caiyuancun
YS - 13 - 6
Beituozi
YS - 13 - 7
Bashaocun
Bashao Island Lithoherm Belt
YS - 13 - 8
Legend
Village
Nominated Property
Buffer Zone
N

Annex I – Summary of IUCN recommendations

ID No	Name of the area	Nominated Property (ha)	Buffer zone (ha)	Summary of key issues	Summary of principal IUCN Recommendations
1606-001	*Migratory Bird Habitat in the South of Yancheng, Jiangsu*	*144,839*	*28,271*		*(inscribed in 2019)*
1606-002	*Migratory Bird Habitat in the North of Yancheng, Jiangsu*	*43,804*	*51,785*		*(inscribed in 2019)*
1606bis-003	Migratory Bird Habitat at Chongming Dongtan, Shanghai	7,504.71	11,271.32	Nominated component part contains majority of relevant and intact habitat; buffer zone should further be optimised.	**Approve (meets WH requirements)** Recommended to consider MBM enlarging and enhancing effectiveness of buffer zone.
1606bis-004	Old Course of Yellow River Estuary	(8,462.14) 14,472.25	(3,698.00) 4,539.62	Nominated component part enlarged to adequate size; boundaries should further be optimised.	**Approve (meets WH requirements)** Recommended to reinforce measures to (a) address any potential oil leakages from nearby hydrocarbon platforms and pipelines and (b) continue eradicating *Spartina*.
1606bis-005	North Part of the Yellow River Estuary	(4,358.71) 8,524.79	(2,414.76) 2,427.72	Two of three adjacent nominated component parts enlarged so that adequate coverage is achieved.	
1606bis-006	South Part of the Yellow River Estuary	5,214.62	1,977.12		
1606bis-007	Dawenliu	(24,291.79) 44,091.60	(5,645.14) 6,740.28		
1606bis-008	Migratory Bird Habitat at Nandagang wetland, Cangzou, Hebei Province	2,922.92	891.22	Nominated component part contains majority of relevant and intact habitat; boundaries should further be optimised	**Approve (meets WH requirements)** Recommended to submit MBM and ensure use in buffer zone restricted and reclamation of intertidal areas prohibited.
1606bis-009	Migratory Bird Habitat at Nanpu Zuidong Wetland, Luannan, Hebei Province	3,958.30	1,223.51	Oil exploration / exploitation incompatible with World Heritage status; buffer zone should further be optimised	**Revise (does not meet WH requirements)** Recommended to unequivocally revoke hydrocarbon permits and to subsequently optimise the buffer zone.
1606bis-010	Migratory Bird Habitat at Qilihai Lagoon, Qinhuangdao, Hebei Province	1,050.26	471.12	Values affected by aquaculture; buffer zone should further be optimised	**Revise (does not meet WH requirements)** Recommended to reinforce pollution management of surrounding aquaculture. Buffer zone may need to be extended due to intensive, surrounding land use.
1606bis-011	Migratory Bird Habitat at Dachaoping of Beidaihe, Qinhuangdao, Hebei Province	97.53	11.11	Small size in urbanised context; need to enhance integrity through the inclusion of already protected upstream areas	**Revise (does not meet WH requirements)** Recommended to expand boundaries to include upstream areas.
1606bis-012	Migratory Bird Habitat at Shihenandao of Laolongtou, Qinhuangdao, Hebei Province	128.25	39.96		
1606bis-013	West Part of Liao River Estuary	(14,142.24) 22,189.41	(5,084.32) 6,655.35	Oil exploration / exploitation incompatible with World Heritage status; boundaries should include more land above high-tide line for roosting shorebirds and any impacts from aquaculture addressed.	**Revise (does not meet WH requirements)** Recommended to unequivocally revoke hydrocarbon permits.
1606bis-014	East Part of Liao River Estuary	(14,057.19) 11,144.17	(3,834.36) 2,177.31		

1606bis-015	Jiutou Hill	768.20	500.91	Mostly intact habitat; boundaries should be optimised by including further key wooded areas within Liaoning Snake Island-Laotieshan National Nature Reserve.	**Approve (meets WH requirements)** Recommended to submit further MBM to include key wooded areas within Liaoning Snake Island-Laotieshan National Nature Reserve.
1606bis-016	Snake Island	323.95	316.29	Small size, but in remote marine context; Habitat intact and adequately covered.	**Approve (meets WH requirements)** No recommendation
1606bis-017	Dayang River	8,578.14	4,886.27	Large area covering key habitat largely in line with zonation of Liaoning Yalu River Estuary Coastal Wetland National Nature Reserve.	**Approve (meets WH requirements)** Recommended to ensure connectivity between the both component parts, including through a potential MBM to include more land above high-tide line for roosting shorebirds and through measures limiting impacts from shellfish farming on mudflats.
1606bis-018	Erdaogou	8,666.76	3,895.35		
1606bis-019	Fantuozi Islet of Guanglu Island	12.13	369.00	Nominated area too small to represent and protect attributes of OUV	**Revise (does not meet WH requirements)** Recommended to merge and extend the nominated component parts into one component part, or at least significantly expand the nominated component parts, on the basis of the existing National Marine Park. This could include Shicheng islands with key breeding populations.
1606bis-020	Ertuozi Islet of Gexian Island	6.06	17.04		
1606bis-021	Dacaotuozi of Guapi Island	16.65	159.37		
1606bis-022	Xiaocaotuozi of Guapi Island	8.42			
1606bis-023	Nandajiao of Guapi Island	0.94			
1606bis-024	Wuhushi of Haxian Island	8.01	3.99		
1606bis-025	Wushi of Dahaozi Island	1.45	137.24		**Revise (does not meet WH requirements)** Recommended to merge and extend the nominated component parts into one significantly larger component part.
1606bis-026	Dabanshi of Dahaozi Island	0.15			
1606bis-027	Xicaotuozi of Dachangshan Island	129.49	77.54		**Revise (does not meet WH requirements)** Recommended to merge the nominated component parts into one component part, or at least significantly expand the nominated component parts, on the basis of the existing National Marine Park.
1606bis-028	Beituozi Islet of Dachangshan Island	11.37	10.18		
1606bis-029	Bashao Island Lithoherm Belt	21.32	137.16		
		289,710.94	**117,502.10**	**Total already inscribed and total recommended for approval**	
		38,783.91	**11,489.88**	**Total recommended for revision**	

Table 2: Component parts that are proposed as Phase II extending the Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China (Phase I), with key issues identified and key recommendations by IUCN. The areas of the nominated component parts have been updated based on the supplementary information submitted by the State Party. The areas as initially nominated are shown in parentheses. As noted in the evaluation report, there are also further areas that should be considered to complete the series, notably **Jiangsu Rudong Coastal Wetland**, **Rudong-Tiezuisha Coast**, and **Lianyungang Salt Works.** Abbreviations: WH (World Heritage); MBM (Minor Boundary Modification).